MARKETS AND HOW THEY WORK: A COMPARATIVE ANALYSIS OF FIELDWORK EVIDENCE ON GLOBALISATION, CORPORATE GOVERNANCE, INSTITUTIONAL STRUCTURE AND COMPETITION IN RUSSIA, INDIA AND CHINA, SUPPORTED BY A QUANTITATIVE WORLDWIDE CROSS-SECTION STUDY OF MARKET ANOMALIES

Morten Dyrmose

A Thesis Submitted for the Degree of PhD at the University of St. Andrews

2012

Full metadata for this item is available in Research@StAndrews:FullText at:
http://research-repository.st-andrews.ac.uk/

Please use this identifier to cite or link to this item:
http://hdl.handle.net/10023/3232

This item is protected by original copyright
Markets and how they work: a comparative analysis of fieldwork evidence on globalisation, corporate governance, institutional structure and competition in Russia, India and China, supported by a quantitative worldwide cross-section study of market anomalies

Morten Dyrmose

Submitted for the degree
Of Doctor of Philosophy
(Economics)
At the University of
St Andrews

September 28, 2012
1. Candidate's declarations

I, Morten Dyrmose, hereby certify that this thesis, which is approximately 79,000 words in length, has been written by me, that it is the record of work carried out by me and that it has not been submitted in any previous application for a higher degree.

I was admitted as a research student in September, 2008 and as a candidate for the degree of PhD in September, 2009; the higher study for which this is a record was carried out in the University of St Andrews between 2008 and 2012.

Date Signature of candidate .........................................................

2. Supervisor's declarations

I hereby certify that the candidate has fulfilled the conditions of the Resolution and Regulations appropriate for the degree of PhD in Economics in the University of St Andrews and that the candidate is qualified to submit this thesis in application for that degree.

Date Signature of supervisor .........................................................

3. Permission for electronic publication

In submitting this thesis to the University of St Andrews I understand that I am giving permission for it to be made available for use in accordance with the regulations of the University Library for the time being in force, subject to any copyright vested in the work not being affected thereby. I also understand that the title and the abstract will be published, and that a copy of the work may be made and supplied to any bona fide library or research worker, that my thesis will be electronically accessible for personal or research use unless exempt by award of an embargo as requested below, and that the library has the right to migrate my thesis into new electronic forms as required to ensure continued access to the thesis. I have obtained any third-party copyright permissions that may be required in order to allow such access and migration, or have requested the appropriate embargo below.

The following is an agreed request by candidate and supervisor regarding the electronic publication of this thesis: Access to printed copy and electronic publication of thesis through the University of St Andrews.

Date

Signature of candidate ..............................................................

Signature of supervisor ..............................................................
Acknowledgements

I would very much like to thank all the facilitators and participants who partook in my fieldwork. I am eternally grateful for all the kindness and hospitality I encountered across the different locations. For my overseas travels I was in extensive contact with people who were connected to these locations. They were incredibly kind and helpful in facilitating introductions and advising me on practical issues. Everyone who somehow was part of this project which took me around Scotland, onwards to Russia, India, China and, lastly, to London are anonymous in this thesis. However, I remember each and every person who lent a hand to this project and I am most grateful for their support.

I am thankful to The SBI Monthly Review (State Bank of India) for publishing and disseminating my article: India, Russia & China: A Comparative Analysis from the Field, in May 2012. This article summarises some of the key findings from my fieldwork, with a specific emphasis on board composition, information flows, the judicial system, stock exchanges and financial regulators.

I am indebted to Dr Arnab Bhattacharjee (now at the University of Dundee) for initially being instrumental in my entering the PhD programme and for taking on the role as my second supervisor. I would like to thank Dr Gonzalo Forgues-Puccio for subsequently becoming my second supervisor in 2011.

I would also like to thank the School in general. I have always enjoyed discussing my work with interested members of the faculty and I am grateful for the questions they have asked and observations they have made at my PhD presentations. I would like to in particular thank Dr Fabio Arico, Dr Leonidas Barbopoulos, Prof David Cobham, Dr Tatiana Damjanovic, Dr Vladislav Damjanovic, Dr Daniel Danau, Dr Paolo Gelain, Dr Jim Jin, Dr Laurence Lasselle, Dr Peter Macmillan, Dr Geetha Selvaretnam, Dr Ozge Senay and Dr Alex Trew. I would also very much like to thank my PhD colleagues, past and present. I have immensely enjoyed their company and I have learnt a lot from them. I would like to extend a special thank you to Jinyu Chen, Walailuck Chavanasporn, Johannes Geissler, Han Jie, Shona Munro, Orachat Niyomsuk, Ibrahim Okumu, Ansarg Rannenberg, Nicola Searle, Adnan Seric, Tsunehiro Tsujimoto and Wen-Kai Wang. I would also like to take this opportunity to thank the School’s secretaries: Caroline Moore, Angela Hodge, Eliana Wilson and Liz Pert-Davies, who have helped me in numerous ways. I have always enjoyed their cheerful company. Moreover, our IT officer, Bram Boskamp, has been extremely helpful and patient in ensuring that I had the required IT tools to carry out research.

The fieldwork I carried out through the School of Economics & Finance at Centre for Research in Industry, Enterprise, Finance and the Firm (CRIEFF), benefitted from the experiences of past research students in CRIEFF: Sara Beattie (Economic handover of Hong Kong), Bernadette Power (Long-lived Small Firms), Nicola Searle (Economic Espionage Act), Thorkild Stewart (Oil Independence), Vandana Ujjual (Scottish High Technology Clusters) and Zhibin Xu (Growth of Firms in Transition Economies).
Prof Gavin C Reid supervised and mentored me on this thesis. I am immensely grateful for all his tireless input and encouragement over the years. I first met Prof Reid while undertaking my MSc in Finance at the School in 2005. In his capacity as Head of the MSc programme, he took an active interest in ensuring that we received a well-rounded training in finance. He established and managed an extracurricular reading club on Inventing Money: The Story of Long-Term Capital Management and the Legends Behind It (Dunbar, 1999) and that is how we first interacted. The level of dedication and energy that he devotes to his work and responsibilities (while still managing to balance his commitments to his family) is remarkable and it has served as an inspiration to me.

I am thankful to Dr Arnab Bhattacharjee, Dr Tatiana Damjanovic and Dr Jim Jin for respectively reading and commenting on my chapters on India, China and Russia. Their insight and observations on their respective countries were of great help.

The Allan & Nesta Ferguson Charitable Trust, the Gilchrist Educational Trust, the Thomas and Margaret Roddan Trust, the Royal Economic Society and the School of Economics & Finance at the University of St Andrews, supported my research financially and for this support I am most grateful.

I would like to dedicate this thesis to my family.
Abstract

This thesis examines the efficacy of markets, using both quantitative and qualitative methods in a complementary way. Specifically, it starts (in Part II) by using the results from a quantitative analysis of initial public offering (IPO) underpricing as a ‘barometer’ for corporate governance failure. This quantitative work identified Russia, China and India as extreme outliers. The data set used for this work was the cross-section sample of 45 countries developed by Loughran, Ritter & Rydqvist (2008). More broadly (in Part III), the thesis takes the lead of the quantitative evidence to examine, in a qualitative framework, possible sources of corporate governance failure in China, India and Russia. This was done categorically, under the headings of Globalisation, Corporate Governance, Institutional Structure and Competitive Strategy. Data were gathered by fieldwork in China, India and Russia, and these findings were then benchmarked against findings from further fieldwork in the United Kingdom. This created a unique 56,000 word database, which was used for both cross-site and within-site analysis. This indicates how both unique attributes (e.g. rule of law, transparency, regulation, etc.), and common attributes (e.g. transition from a socialist/Marxist regime, market immaturity, asymmetric information etc.), combine to explain the different morphologies of corporate governance in these three countries.

The quantitative analysis (Part II) consists of exploratory data analysis (EDA) and econometric work. The exploratory data analysis establishes, through graphical means and regression techniques, a negative correlation between IPO under-pricing and globalization (as measured by the KOF index, see Dreher, 2006). Building on this, the subsequent econometric modelling suggests that economic, demographic and institutional factors are all significant determinants of IPO underpricing.

The qualitative analysis carried out in Part III of the thesis, builds on and extends the quantitative analysis of Part II. This is consistent with the multiple method approach, which combines both quantitative and qualitative analysis to achieve a synthesis of findings. The qualitative analysis uses evidence from semi-structured interviews with finance professionals and opinion makers, as well as evidence from additional primary and secondary sources, which was also made available through fieldwork contacts. This analysis emphasises the especial importance of board composition, information flows, the judicial system, the stock exchanges, and financial regulators for forms of corporate governance.

Key Words: Corporate Governance, Initial Public Offerings, Fieldwork, Asymmetric Information, Market Efficiency, Equity Markets, Russia, India, China and United Kingdom
# Contents

I  Methodology, Evidence and Literature 6

1  Background and Methodology 7
   1.1 Purpose of Thesis 7
   1.2 Background to Thesis Research 8
      1.2.1 Detecting Pricing Anomalies 9
      1.2.2 From the Computer to the Field 10
   1.3 Fieldwork Methodology 11
      1.3.1 Instrumentation 11
      1.3.2 Access to Field 17
      1.3.3 Storage and Analysis of Data 21
   1.4 Outline of the Thesis 21
      1.4.1 Terms, Acronyms and Abbreviations 24
      1.4.2 Interviewee Overview 30

2  The Efficacy of Markets and Corporate Governance 32

   2.1 Introduction 32
   2.2 Market Efficiency 33
   2.3 Corporate Governance 34
      2.3.1 Globalisation 35
      2.3.2 Corporate Governance 37
      2.3.3 Corporate Social Responsibility 38
      2.3.4 Internal Corporate Governance Controls 40
      2.3.5 External Corporate Governance Controls 42
   2.4 Conclusion 48

II  Part II: Quantitative Analysis: Market Inefficiency, IPO Underpricing as a Barometer 49

3  Market Inefficiency 50
   3.1 Introduction 50
### 3.2 Initial Public Offerings .......................... 51
### 3.3 US IPO Performance: 1980-2011 .................. 51
    3.3.1 The 1999-2000 US IPO bubble ............... 53
### 3.4 US - Canada IPO Market Comparison .............. 55
### 3.5 Justified IPO Underpricing ........................ 57
### 3.6 International Difference and Underlying Factors ... 57
### 3.7 Selling Mechanisms ................................ 59
    3.7.1 Bookbuilding ................................. 60
### 3.8 Key IPO Models .................................. 64
    3.8.1 Asymmetric Information models ............... 67
### 3.9 Conclusion ....................................... 74

### 3.10 Conclusion ....................................... 74

### 4 Exploratory Data Analysis ........................ 75
### 4.1 Introduction ..................................... 75
### 4.2 Data Sources and Summary Statistics .............. 75
    4.2.1 Initial Public Offering (IPO) Data ............ 76
    4.2.2 Globalisation Data ............................. 81
    4.2.3 Summary Statistics ............................. 84
### 4.3 Scatter Plots ..................................... 84
### 4.4 Simple Regression Model .......................... 86
### 4.5 Kernel Density Estimations ......................... 89
### 4.6 Two-Sample Kolmogorov-Smirnov Test .............. 94
### 4.7 Conclusion ....................................... 96

### 5 Econometric Modelling .......................... 98
### 5.1 Introduction ..................................... 98
### 5.2 Model Specification ............................... 99
### 5.3 Regression Model ................................ 103
### 5.4 Robustness Testing ............................... 106
    5.4.1 Multicollinearity ............................. 107
    5.4.2 Sample Trimming .............................. 109
### 5.5 Conclusion ....................................... 111

### III Part III: Qualitative Analysis: Governance, Globalisation, Institutions and Strategy 112

### 6 The Russian Bear ................................. 113
    6.1 Introduction .................................... 113
    6.2 Globalisation .................................... 117
    6.2.1 Economic Effects on Market Functions ........ 117
    6.2.2 Social Effects on Market Functions .......... 121
    6.2.3 Political Effects on Market Functions ........ 123
    6.3 Corporate Governance ............................. 123
6.3.1 Stakeholders ........................................... 123
6.3.2 Corporate Social Responsibility ...................... 125
6.3.3 Business Ethics .................................... 126
6.3.4 Enforcement and Control ............................. 127
6.3.5 Corporate Governance and Firm Performance ......... 127
6.3.6 Mergers & Acquisitions ............................... 128
6.3.7 Initial Public Offerings ................................ 129
6.4 Institutional Structure ................................. 130
  6.4.1 Market Influence by the State ....................... 131
  6.4.2 Regulatory bodies ................................ 131
  6.4.3 Stock Exchange .................................. 131
  6.4.4 Market Maturity ................................ 132
6.5 Competitive Strategy ................................. 132
  6.5.1 Rivalry ........................................... 132
  6.5.2 Customers ....................................... 136
  6.5.3 Suppliers ........................................ 140
  6.5.4 Potential entrants ................................ 140
6.6 Conclusion ............................................. 141

7 The Indian Tiger ........................................... 142
7.1 Introduction ............................................ 142
7.2 Globalisation .......................................... 146
  7.2.1 Economic Effects on Market Functions .............. 146
  7.2.2 Social Effects on Market Functions ................ 149
  7.2.3 Political Effects on Market Functions ............. 151
7.3 Corporate Governance ................................. 152
  7.3.1 Stakeholders .................................... 152
  7.3.2 Corporate Social Responsibility ................... 155
  7.3.3 Business Ethics .................................. 155
  7.3.4 Enforcement and Control ........................... 156
  7.3.5 Corporate Governance and Firm Performance ........ 157
  7.3.6 Mergers & Acquisitions ........................... 157
  7.3.7 Initial Public Offerings ............................ 158
7.4 Institutional Structure .................................. 159
  7.4.1 Market Influence by the State ...................... 159
  7.4.2 Regulatory bodies ................................ 160
  7.4.3 Stock Exchange .................................. 161
  7.4.4 Market Maturity ................................ 162
7.5 Competitive Strategy .................................... 162
  7.5.1 Rivalry .......................................... 162
  7.5.2 Auditor Sector ................................... 164
  7.5.3 Brokerage Sector ................................ 165
  7.5.4 Customers ...................................... 165
  7.5.5 Suppliers ........................................ 166
  7.5.6 Potential entrants ................................ 167
7.6 Conclusion ............................................. 168
8 The Chinese Dragon

8.1 Introduction ....................... 169
8.2 Globalisation ...................... 172
  8.2.1 Economic Effects on Market Functions .............. 172
  8.2.2 Social Effects on Market Functions ................. 175
  8.2.3 Political Effects on Market Functions ............. 179
8.3 Corporate Governance ............. 179
  8.3.1 Stakeholders .................. 180
  8.3.2 Corporate Social Responsibility .................. 182
  8.3.3 Business Ethics ................ 182
  8.3.4 Enforcement & Control ............... 183
  8.3.5 Corporate Governance & Firm Performance .......... 185
  8.3.6 Mergers & Acquisitions .................. 185
  8.3.7 Initial Public Offerings ............... 186
8.4 Institutional Structure ............ 187
  8.4.1 Market Influence by the State .................. 187
  8.4.2 Regulatory bodies ................ 190
  8.4.3 Stock Exchange .................. 190
  8.4.4 Market Maturity .................. 191
8.5 Competitive Strategy .............. 191
  8.5.1 Rivalry .......................... 192
  8.5.2 Auditor Sector .................. 193
  8.5.3 Brokerage Sector ................ 194
  8.5.4 Customers ....................... 194
  8.5.5 Suppliers ....................... 196
  8.5.6 Potential entrants ................ 197
8.6 Conclusion ......................... 198

IV Conclusion, References and Appendices 199

9 Conclusion .......................... 200
  9.1 Overview and key findings of Thesis: Chapters 2-8 ........ 201
  9.2 Potential Research Extensions ................... 209

A Semi-Structured Interview Schedule (SSI 2011) 246
B Semi-Structured Interview Agenda 247
C Fieldwork Risk Assessment Form 248
D Fieldwork Ethics Approval Form 249
E Participant Consent Form, Anonymous Data 250
F Email Template, Russia, India and China 251
G  Letter of Introduction, Russia, India and China  252
H  Agenda Outline  253
I  Email Template, United Kingdom (London)  254
J  Letter of Introduction, United Kingdom (London)  255
K  Follow-up Thank-You Email  256
L  Initial Findings, Fieldwork  257
M  Follow-up Email  258
N  The Russian Hunter, Citigroup Global Markets  259
List of Tables

Table 1.1: Economic Globalisation .......................................................... 11
Table 1.2: Social Globalisation ................................................................. 13
Table 1.3: Political Globalisation ............................................................... 14
Table 1.4: Corporate Governance Components ....................................... 14
Table 1.5: Institutional Considerations ..................................................... 15
Table 1.6: Competitive Strategy Variables ................................................ 16
Table 1.7: Interview Dates and Locations ................................................ 17
Table 1.8A: Interviewee Overview, United Kingdom .................................. 30
Table 1.8B: Interviewee Overview, Russia .................................................. 30
Table 1.8C: Interviewee Overview, India .................................................... 30
Table 1.8D: Interviewee Overview, China .................................................. 30
Table 3.1: Average First day Returns and Annual Number of IPOs, 1980 to 2011 52
Table 3.2: Four Models Endeavouring to Explain IPO Underpricing .......... 65
Table 4.1: Equally Weighted Cross-country Variations in Underpricing ........ 71
Table 4.2: Cross-country Variations in the 2004 Globalisation Index and Underpricing 82
Table 4.3: Summary Statistics ................................................................. 84
Table 4.4A: Bivariable Linear Regression .................................................. 88
Table 4.4B: Bivariable Linear Regression, Iran Dropped .......................... 89
Table 4.5: Kernel Function, Commonly Used Examples ............................. 90
Table 4.6: Two-sample Kolmogorov-Smirnov Test ................................... 95
Table 5.1: Brief Definitions of Explanatory Variables ............................... 103
Table 5.2: Estimated Regression Model Explaining IPO Underpricing .......... 104
Table 5.3: Bivariate Correlation Coefficients ............................................ 107
Table 5.4: Variance Inflation Factor (VIF) Estimates ................................ 108
Table 5.5: Distribution of PSD ............................................................... 109
Table 5.6: 10 percent Trim of PSD ......................................................... 109
Table 5.7: Distribution of MCR .............................................................. 110
Table 5.8: 10 percent Trim of MCR ......................................................... 110
Table 6.1: Interviewees’ Codes, Status, and Sector .................................... 114
Table 7.1: Interviewees’ Codes, Status, and Sector .................................... 144
Table 7.2: Selected M&As undertaken by firms from South, East and South-East Asia in developed countries, 2007 - 2011 ................................................. 157
Table 7.3: Summary of the Banking industry: 1990-91 to 2003-04 (in Rs. billion) 162
Table 8.1: Interviewees’ Codes, Status, and Sectors ................................... 170
List of Figures

Figure 4.1: Equally Weighted Cross-country Variations in Underpricing .......................................................... 77
Figure 4.2: Log Linear Scatter Diagram of IPO Underpricing (Undpri) against Globalisation Index (GloIndex), with Fitted Line ................................................ 85
Figure 4.3: Log Linear Scatter Diagram of IPO Underpricing (Undpri) against Globalisation Index (GloIndex), with Fitted Line and 95 percent Confidence Interval .......... 86
Figure 4.4: Globalisation Index and IPO Underpricing data in Levels, with Fitted Log Linear Line ...................... 87
Figure 4.5: Kernel Density Estimation: Asia, Europe and all Countries .............................................................. 91
Figure 4.6: Kernel Density Estimation: South America, North America and all Countries .................................. 92
Figure 4.7: Kernel Density Estimation: Asia, Oceania and all Countries ............................................................ 93
Figure 4.8: Kernel Density Estimation: Africa, Middle East and all Countries .................................................... 93
Figure 6.1: RTS Stock Exchange Index performance vs. London Stock Exchange FTSE 100 between 2007 Q3 and 2010 Q1 ......................................................................................... 116
Figure 8.1: Share of SOEs in the Industrial Sector, 1999 to 2008 ................................................................. 187
Figure 8.2: China Inflation Rate, annual change on the consumer price index (CPI) ........................................... 192
Part I

Methodology, Evidence and Literature
Chapter 1

Background and Methodology

1.1 Purpose of Thesis

This thesis is concerned with one of the major economic and financial issues of the last decade: effective corporate governance, internal and external, in and between the major economies of the world, both mature and emerging. The initial aim of this thesis is to use global initial public offering (IPO) underpricing data as a barometer for corporate governance failure, thereby guiding the research into a broader comparative analysis of corporate governance across three of the BRIC economies (viz. Russia, India and China). The construction of the thesis is twofold.

In the first part of the thesis, a cross-section quantitative data analysis explores global market anomalies in the form of IPO underpricing. The data set consists of average IPO returns for 45 countries. The data is processed through explorative statistical tools and analysis. This is subsequently followed by econometric modelling in which IPO underpricing is explained in a cross-section regression model by economic, demographic and institutional variables (e.g., market capitalisation, population and minimum capital requirements). This modelling provides a good fit to the data, and is revealing about the impact of key variables on underpricing. It also indicates how data points from a few key countries were significant outliers from the fitted model (e.g., Russia, India and China). This precipitated a further investigation into the nature and causes of these anomalies, using direct observations by fieldwork methods. Thus, quantitative cross-section analysis gave rise to further qualitative cross-site analysis.

In the second part of the thesis, a cross-site analysis was carried out through fieldwork in Russia, India and China. The four key topics investigated in each location are direct extensions of the cross-section analysis and are structured

1 The IPO data is provided by Loughran, Ritter & Rydqvist (2008).
around globalisation & corporate governance. Specifically, the comparative analysis of fieldwork evidence is split into four sections: globalisation, corporate governance, institutional structure and competition strategy in Russia, India and China. This comparative work is benchmarked against the UK. On the basis of the notes obtained during the four site visits, an approximately 56,000 word database is constructed in Microsoft Excel to make possible comprehensive comparisons between interviewees and across countries.²

1.2 Background to Thesis Research

Writing this thesis within the School of Economics & Finance, The University of St Andrews, Scotland, has proven itself to be most conducive to the empirical and inquisitive nature of this project. The cosmopolitan and socially dynamic milieu of St Andrews has been instrumental in securing interviewees and contacts across Russia, India and China. The Centre for Research in Industry, Enterprise, Finance and the Firm (CRIEFF), within the School of Economics & Finance, where this research was based, also has a strong tradition in empirical work, grounded in economic theory. CRIEFF has both promoted the use of a mixed method approaches where quantitative and qualitative methods are combined in synergy (see e.g., Reid, 1993) and the use of a multidisciplinary approach where, for example, economics, finance and accounting know-how is utilised for one analysis (See e.g., Reid & Smith, 2008). This thesis uses both the mixed method and multidisciplinary methods in its approach. The field research carried out in this study takes inspiration from, and builds on, the framework of Reid (1987).

St Andrews is, of course, also near the birthplace of Adam Smith, who based *The Wealth of Nations* (1779) on empirical observations. Andrew Carnegie (1889, 1900), another prominent Scot who has left a significant mark on this area, wrote on the importance of philanthropy and in doing so laid the foundation for what we know today as corporate social responsibility. Alfred Marshall also focused on the dynamics of society and firms, and undertook a number of fieldwork related trips. More recently, marking a renewed interest in the importance and potential of fieldwork, Elinor Ostrom was awarded the Nobel Price in Economics for her work in applied field research in 2009.

Adam Smith (1759, 1776) was interested in corporate governance issues and famously noted in *The Wealth of Nations* that joint-stock companies were fundamentally flawed in comparison to private enterprises: ‘Negligence and profligacy, therefore, must always prevail, more or less, in the management of the affairs of such a company.’ (1776:607). Conflict of interest notwithstanding, public equity companies have proven successful and resilient across the world over many years. Today it is still the ultimate goal of many company owners to seek a stock exchange listing to tap into more affordable credit facilities and increase their company profile. However, as we witness an ever increased pace

²To preserve the absolute confidentiality and anonymity of all interviewees, this database will not be made publically available.
of globalisation, the shortening of news cycles, and the construction of financial
products that even industry experts are struggling to understand the implications of, a better understanding of corporate governance practices by market
participants and policy makers has become essential. The corporate governance
scandals of Enron (2001), Worldcom (2002) and Parmalat (2003) proved to be
high profile symptoms of more systemic issues that became evident around the
start of the 2008 global financial crisis. Oversight and accountability of corpo-
rate governance had been sidelined in the pursuit of higher profits and market
expansions. Gordon Brown (2010) in Beyond the Crash, Overcoming the First
Crisis of Globalisation, emphasises the global interconnectedness of economies
today and stresses the need for co-ordinated global actions to remedy the crisis.
We have entered a new era of globalisation and corporate governance initiatives
will need to reflect this in the future.

1.2.1 Detecting Pricing Anomalies

During the late 1960s it became apparent that US initial public offerings (IPOs)
were, on average, priced below their market value. Researchers assume that
the market value of a share is revealed after the first day of trading in liquid
and unimpeded markets. In other words, the shares were underpriced from
the perspective of the issuer. It later transpired that the phenomenon of IPO
underpricing was not unique to the US markets. It is, on average, a global phe-
nomenon across all the main financial markets. Why leave significant amounts
of money on the table for the initial investors? This became the focus of many
subsequent theories and it will be further discussed in this thesis. Some degree
of underpricing may be justified. The shares are, by definition, unknown enti-
ties; the management of the company may not be well known to the investors
and there is an inherent liquidity risk associated with new issues. However,
underpricing becomes a problem when it is excessive. Loughran & Ritter (2004:
8) note that if asymmetric information is counteracted, underpricing will ‘be no
more than several percent’.

This thesis uses a cross-section IPO underpricing data set as an instrument
to examine market failure and corporate governance globally. In analysing
the cross-country IPO data with respect to globalisation, three countries stand out
in particular: Russia, India and China. At one end of the scale we find Russia
(4.2 percent underpriced, 1999-2006) with little IPO activity and somewhat
dormant markets, whereas India (92.7 percent, 1990-2007) and China (164.5
percent, 1999-2005) are characterised by significant activity in their primary
markets but with significant mispricing of new equity offerings. Simultaneously,
it is evident from the data that the UK (16.8 percent, 1959-2006) and the US

---


4See Logue (1973). In addition, see Reilly & Hatfield (1969), US SEC’s Institutional

5Loughran, Ritter & Rydqvist (2011) is currently the most up-to-date global overview of
IPO country performance. It now covers 49 countries in total.
(16.9 percent, 1960-2007) may represent a sound yard-stick for what we should expect on average from well-developed, deep financial markets.\footnote{The IPO data is provided by Loughran, Ritter & Rydqvist (2008).}

### 1.2.2 From the Computer to the Field

Russia, India and China share some historic market similarities. They are all developing markets, with newly marketised economies, anchored in socialist market forms and they are still subject to substantial government influence. Moreover, together with Brazil they constitute the much talked about BRIC grouping.\footnote{Brazil, however, does not share the Marxist or strong socialist background that has been present is Russia, India and China.} Interestingly, despite their similarities they are clearly on different growth trajectories. To more fully analyse and understand these dynamics, this thesis makes use of field trips to Russia (Moscow), India (Mumbai) and China (Shanghai). In each location, experts and opinion formers partook in a semi-structured interview that was designed to address the functioning (and efficacy) of financial markets in these countries and build on the key findings of the data analysis. Subsequently, the findings were benchmarked against the UK (London).

It is evident from the field trips that corporate governance is a key factor in all three countries. With the increasingly rapid globalisation and interconnectedness of financial markets, local corporate governance issues now have global repercussions. When investors today buy into a FTSE index fund, they are taking on the risk of significant direct exposure to foreign companies. They are, in some cases unwittingly, indirectly investing in Russian, Indian and Chinese companies. Hence, it is of paramount importance to better understand the dynamics that govern these markets and to more fully appreciate the specific challenges that face these countries.

This ‘multiple methods approach’ where quantitative and qualitative analyses are combined in synergy is becoming increasingly popular as a research tool. Jick’s (1979) widely cited thesis on this method advocates the use of triangulation but Teddlie & Tashakkori (2009) find that it is particularly since 1990 that the number of, especially empirical, mixed method studies have increased significantly. As Bryman (2006:97) states:

‘In a sense, we end up with three distinct approaches to research: quantitative; qualitative; and what is variously called multi-methods (Brannen, 1992), multi-strategy (Bryman, 2004), mixed methods (Creswell, 2003; Tashakkori and Teddlie, 2003), or mixed strategy methodology (Tashakkori and Teddlie, 1998) research.’

Academic publications adopting a mixed method approach cover a wide range of topics which include, but are not limited to: business management (e.g., Claver-Cortés, et al., 2008), mental health (e.g., Barg, et al., 2006), family economics (e.g., Mistry, et al., 2008), board of directors study (1999) and co-operation (Poteete, Janssen & Ostrom, 2010). Moreover, The Journal of Mixed
Methods Research is a dedicated publication that disseminates and discusses best practices and developments within this area of research. In addition, international organisations such as the World Bank Group (e.g., Bamberger, Rao & Woolcock (2010) and Barron, et al. (2008)) have also utilised this method.

One recent prominent example applying the multiple method approach is Buchanan, Chai & Deakin (2012), who investigate shareholder primacy within hedge fund activism in Japan. They observe (and cite Poteete, Janssen & Ostrom, 2010) that a multi-methods approach is appropriate when research is conducted into complex causal processes and when data is scarce and difficult to access. Their research fulfil both requirements, as does this thesis. Moreover, Buchanan, Chai & Deakin note that interviews can result in access to otherwise not publicly available information, such as institutional routines and norms. As a result of interviews carried out in Russia, India and China this thesis contains information that would not otherwise be in the public domain.

1.3 Fieldwork Methodology

As outlined in Chapter 4 of the thesis, the exploratory data analysis chapter, Russia, India and China are found to be outliers in the IPO underpricing data set provided by Loughran, Ritter & Rydqvist (2008). We continue in Chapters 4 and 5 to analyse variables that may influence cross-country underpricing and use these findings as a stepping stone into fieldwork exploring corporate governance issues (the results of which will be presented and discussed in Part III of the thesis). This section of the thesis will concisely document the methodology used to construct the instrumentation, obtain access to interviewees and the subsequent storage & retrieval of the information (database design). The methodology and instrumentation used to obtain fieldwork data is based on Reid’s (1993) *Small Business Enterprise, An Economic Analysis* book; including the structure and layout of the semi-structured interview schedule. Lastly, this chapter will conclude with the outline of the thesis.

1.3.1 Instrumentation

The instrumentation is divided into four sub-sections: Globalisation, Corporate Governance, Institutional Structure and Competitive Strategy. The four section are inspired by different sources, although they all relate back to the data analysis carried out in Chapter 4 and Chapter 5. In Chapter 4, we establish the link between globalisation and underpricing, while in Chapter 5 we establish that economic, demographic and institutional factors influence IPO underpricing.

The instrumentation used in this thesis is a semi-structured interview schedule, SSI 2011 (Appendix A). A semi-structured interview agenda allowed for flexibility, and yet at the same time, ensured consistency across the different sites, which in turn facilitated the cross-site analysis. All interviewees were guaranteed anonymity and the interviews were not recorded (to ensure the interviewees felt comfortable sharing information). I took notes on the interview
schedule during the interview, which I later transferred into MS Excel for analysis purposes (see the ‘Access to Field’ section for full details). The four sections (Globalisation, Corporate Governance, Institutional Structure and Competitive Strategy) were colour coded in the interview schedule, as is evident from Appendix A. Reid (1993) recommends this approach, and it provides both the interviewer and the interviewee with a visual cue when one section finishes and the next starts. This detail was well received across all sites.

**Globalisation**

The instrumentation used in this thesis is a semi-structured interview schedule, SSI 2011 (Appendix A). For a brief overview of the content, see the semi-structured interview agenda (Appendix B). It was constructed using several sources and it consists of four sections. Section I is based, almost verbatim, on the Dreher (2006) KOF Index of Globalization, with minor adjustments (words denoted in italics, in Appendices A and B, are additional components added to the Dreher (2006) framework). It is established in Chapter 4 that there is a statistically significant negative correlation between the globalisation index and IPO underpricing. However, globalisation is, of course, a wide term and by using the sub-segments that in their totality constitute the globalisation index, we are better able to emphasise nuances between the sites visited. The index is divided into three categories: economic (37 percent weight), social (39 percent weight) and political (25 percent weight). However, these subsections are divided into further sections:

**Table 1.1: Economic Globalisation**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Globalisation</td>
<td>37%</td>
</tr>
<tr>
<td>i) Actual Flows</td>
<td>50%</td>
</tr>
<tr>
<td>Trade (percent of GDP)</td>
<td>19%</td>
</tr>
<tr>
<td>Foreign Direct Investment, flows (percent of GDP)</td>
<td>20%</td>
</tr>
<tr>
<td>Foreign Direct Investment, stocks (percent of GDP)</td>
<td>24%</td>
</tr>
<tr>
<td>Portfolio Investments (percent of GDP)</td>
<td>17%</td>
</tr>
<tr>
<td>Income Payments to Foreign Nationals (percent of DGP)</td>
<td>20%</td>
</tr>
<tr>
<td>ii) Restrictions</td>
<td>50%</td>
</tr>
<tr>
<td>Hidden Import Barriers</td>
<td>22%</td>
</tr>
<tr>
<td>Mean Tariff Rate</td>
<td>28%</td>
</tr>
<tr>
<td>Taxes on International Trade (percent of current revenue)</td>
<td>27%</td>
</tr>
<tr>
<td>Capital Account Restrictions</td>
<td>22%</td>
</tr>
</tbody>
</table>

Table 1.1 examines economic flows between countries. The qualitative interviews add significant observations to all the variables and, in doing so, add another dimension to the analysis. I used i) Actual Flows and ii) Restrictions

---

8 The reader may notice that that total of the weights come to 101 percent. Professor Dreher, in private correspondence with me, notes that this is due to rounding of figures.
as headings, with the other variables used as probes. For example, when interviewees in Russia were asked about foreign direct investments (FDI) flows, most of them remarked that the majority of funds coming into Russia as FDI, are in fact, domestically owned funds being repatriated (and coming into Russia disguised as FDI).

All the variables in Table 1.1 were used in the construction of the semi-structured interview schedule. However, the weights were not applied to the qualitative analysis. Nevertheless, when examining Table 4.2 in Chapter 4, outlining the globalisation index for 45 counties, it may be of interest to know how the total figure was constructed.

Table 1.2: Social Globalisation

<table>
<thead>
<tr>
<th>Variables</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Globalisation</td>
<td>39%</td>
</tr>
<tr>
<td>i) Data on Personal Contact</td>
<td>33%</td>
</tr>
<tr>
<td>Telephone Traffic</td>
<td>26%</td>
</tr>
<tr>
<td>Transfers (percent of GDP)</td>
<td>3%</td>
</tr>
<tr>
<td>International Tourism</td>
<td>26%</td>
</tr>
<tr>
<td>Foreign Population (percent of total population)</td>
<td>20%</td>
</tr>
<tr>
<td>International letters (per capita)</td>
<td>25%</td>
</tr>
<tr>
<td>ii) Data on Information Flows</td>
<td>36%</td>
</tr>
<tr>
<td>Internet Users (per 1000 people)</td>
<td>36%</td>
</tr>
<tr>
<td>Television (per 1000 people)</td>
<td>36%</td>
</tr>
<tr>
<td>Trade in Newspapers (percent of GDP)</td>
<td>28%</td>
</tr>
<tr>
<td>iii) Data on Cultural Proximity</td>
<td>31%</td>
</tr>
<tr>
<td>Number of McDonald’s Restaurants (per capita)</td>
<td>43%</td>
</tr>
<tr>
<td>Number of Ikea (per capita)</td>
<td>44%</td>
</tr>
<tr>
<td>Trade in books (percent of GDP)</td>
<td>12%</td>
</tr>
</tbody>
</table>

Table 1.2 looks at social interaction between a country and the outside world. Small adjustments were made to these variables in preparation for the fieldwork: I added “abroad and domestically” to the tourism variable and asked about the prominence of retail chains in general. I again used the key variables as headings: i) Data on Personal Contact, ii) Data on Information Flows and iii) Data on Cultural Proximity, with the other variables used as probes. The figures used for the weights are for a country in general (e.g., per 1000 people), however, it is clear from visiting Russia, India and China that there is a significant gap in global integration between their tier-one cities (e.g., Moscow, Shanghai and Mumbai) and their vast rural areas. Indeed, as it was remarked by H, a Managing Director in London:

“Sitting in London you feel connected to many countries. However, London is not representative of the country as a whole. London may be more like the Netherlands.”

This quote illustrates the complexity involved in comparing and contrasting countries. However, it can only be beneficial in this endeavour to use both
quantitative and qualitative analysis (i.e., make use of a multi method approach, as outlined in Section 1.2.2).

**Table 1.3: Political Globalisation**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political Globalization</td>
<td>25%</td>
</tr>
<tr>
<td>Embassies in Country</td>
<td>25%</td>
</tr>
<tr>
<td>Membership in International Organizations</td>
<td>28%</td>
</tr>
<tr>
<td>Participation in U.N. Security Council Missions</td>
<td>22%</td>
</tr>
<tr>
<td>International Treaties</td>
<td>25%</td>
</tr>
</tbody>
</table>

Table 1.3 lists the variables used to determine a country’s political integration with the world community. Throughout the pilot phase, I used these four sub-variables to enquire about political integration. However, between the pilot run and the first field trip abroad, I summarised this point differently (although I left the text unchanged). For this section I would ask the interviewees, “How do you think your country would like to be seen on the world stage?”

**Corporate Governance**

Corporate governance is the second section in the semi-structured interview schedule. We suspect from the (extreme) IPO underpricing data on Russia, India and China that there may be some degree of corporate governance failure in these countries. Fortunately, we are in the position of being able to ask senior finance professionals and opinion makers, ‘on the ground,’ about this topic in order to more fully investigate this suspicion.

**Table 1.4: Corporate Governance Components**

<table>
<thead>
<tr>
<th>Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>i) Stakeholders</td>
</tr>
<tr>
<td>Internal Stakeholders</td>
</tr>
<tr>
<td>Probe on Managers (accountability and job prospects)</td>
</tr>
<tr>
<td>External Stakeholders</td>
</tr>
<tr>
<td>Probe on Suppliers/Lenders/Creditors (legal protection)</td>
</tr>
<tr>
<td>ii) Corporate Social Responsibility (CSR)</td>
</tr>
<tr>
<td>Probe on License to Operate?</td>
</tr>
<tr>
<td>iii) Business Ethics</td>
</tr>
<tr>
<td>Probe on Are corporate scandals publicised and discussed?</td>
</tr>
<tr>
<td>iv) Enforcement &amp; Control</td>
</tr>
<tr>
<td>Probe on External Corporate Governance Controls</td>
</tr>
<tr>
<td>v) Corporate Governance &amp; Firm Performance</td>
</tr>
<tr>
<td>Probe on Board Composition</td>
</tr>
<tr>
<td>vi) Mergers &amp; Acquisitions and Initial Public offerings</td>
</tr>
<tr>
<td>Probe on Frequency and Motivation</td>
</tr>
</tbody>
</table>

Table 1.4 lists the key variables examined under corporate governance and an example probe question. An overview of the complete list of probes is located
in Appendix B and the semi-structured interview answers will be fully explored in Part III of the thesis. While the probing questions under the globalisation heading were directly taken from the composition of the Dreher (2006) KOF Index of Globalization, this is not the case in the three other sections, where the probes are constructed by me on the basis of the headings.

There were, of course, many interesting and unexpected answers to these probes. For example, during the Russia field trip (Chapter 6), it was suggested by D_{R}, Head of Banking, that CSR was used by some companies as a front for misallocation of funds (i.e., funds were funneled into nontransparent entities (‘charities’) and disappeared from view). It was also interesting to learn that in Russia there is a term known as ‘black PR’, where the media is said to be used to discredit business and political rivals.\textsuperscript{9} This goes against the usual notion of media scrutiny as having a positive effect on business ethics and good corporate governance practices (see e.g., Berglök & Claessens (2006) on the positive effect of a free media).

**Institutional Structure**

The structure of the institutional instrumentation is an extension of the institutional variables that we determined influence IPO underpricing (i.e., Frequency of Financial Reporting, Minimum Capital Requirements to start a business and Freedom to use Alternative Currencies) in Chapter 5.

**Table 1.5: Institutional Considerations**

<table>
<thead>
<tr>
<th>Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>i) Market Influence by the State</td>
</tr>
<tr>
<td>Probe on Is market regulation a topical political issue?</td>
</tr>
<tr>
<td>ii) Regulatory bodies</td>
</tr>
<tr>
<td>Probe on Seen as a positive force by market participants?</td>
</tr>
<tr>
<td>iii) Stock Exchanges</td>
</tr>
<tr>
<td>Probe on Seen as credible entities? Certification value?</td>
</tr>
<tr>
<td>iv) Market Maturity</td>
</tr>
<tr>
<td>Probe on Market efficiency - is the market efficient? Why and how?</td>
</tr>
</tbody>
</table>

Table 1.5 presents the four key variables covered under the institutional structure heading, with examples of probing questions. The full outline can be found in Appendix B. Again, there were a number of interesting issues that arose from these questions. For example, in China, D_{C}, a Senior Product Manager with an asset management firm, alleged that companies could buy their way onto the stock exchange (which, of course, diminishes the certification value of the exchange).\textsuperscript{9}

\textsuperscript{9}See for example Ledeneva (2006), Chapters 2 and 3, for an extensive explanation and analysis of this phenomenon.
Competitive Strategy

The competitive strategy section is derived from Porter’s (1980, 1985) three books of competition and extended to countries in Porter’s (1990) The Competitive Advantage of Nations. Moreover, this section also relates to contestable markets, which are described in detail in Baumol, Panzar & Willig’s (1982) book on contestable markets. As we will discuss in chapter 2, it may be that competitive forces in the market place instill discipline on managers and reduces agency problems.

Table 1.6: Competitive Strategy Variables

<table>
<thead>
<tr>
<th>Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rivalry</td>
</tr>
<tr>
<td>i) Banking Sectors</td>
</tr>
<tr>
<td>Probe on Degree of competitiveness within the Retail Bank Sector?</td>
</tr>
<tr>
<td>ii) Auditor Sector</td>
</tr>
<tr>
<td>Probe on Seen as independent to audited company?</td>
</tr>
<tr>
<td>iii) Brokerage Sector</td>
</tr>
<tr>
<td>Probe on Conflict of interest issues? (e.g., serve/owned by a specific bank)</td>
</tr>
<tr>
<td>Customers</td>
</tr>
<tr>
<td>iv) Institutional Investors</td>
</tr>
<tr>
<td>Probe on High profile in the markets?</td>
</tr>
<tr>
<td>v) Retail Investors</td>
</tr>
<tr>
<td>Probe on General level of financial sophistication?</td>
</tr>
<tr>
<td>vi) Suppliers (issuing companies)</td>
</tr>
<tr>
<td>Probe on Transparency?</td>
</tr>
<tr>
<td>Potential entrants</td>
</tr>
<tr>
<td>vii) Investment Banks, Auditors and Brokers</td>
</tr>
<tr>
<td>Probe on Openness of the markets? (to domestic and foreign entities)</td>
</tr>
<tr>
<td>viii) Issuing companies</td>
</tr>
<tr>
<td>Probe on Openness of the markets? (to domestic and foreign entities)</td>
</tr>
<tr>
<td>ix) Investors</td>
</tr>
<tr>
<td>Probe on Openness of the markets? (to domestic and foreign participants)</td>
</tr>
</tbody>
</table>

Table 1.6 contains all the variables covered in the competitive strategy section, but the probing questions listed in Table 1.6 are only one example. Please refer to Appendix B for the full list of probing questions. In this section, B_C, a retail banking Client Executive in China, noted that it is mostly state owned enterprises (SOEs) that are currently listing in China. However, the SOEs only list a small part of the company, which may also relate to oversight issues. As B_C remarked: “They will tell you what they want to tell you” when they list on the stock exchange.
1.3.2 Access to Field

A total of four field trips were undertaken between August 5 and December 10, 2011 (in addition to piloting the interview agenda around Scotland), as outlined in Table 1.7.

Table 1.7: Interview Dates and Locations

<table>
<thead>
<tr>
<th>Period</th>
<th>Country/Site</th>
<th>Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 12 - August 1, 2011</td>
<td>United Kingdom (Scotland)</td>
<td>Pilot</td>
</tr>
<tr>
<td>August 5 - August 20, 2011</td>
<td>Russia (Moscow)</td>
<td>Core Trip</td>
</tr>
<tr>
<td>September 16 - October 3, 2011</td>
<td>China (Shanghai)</td>
<td>Core Trip</td>
</tr>
<tr>
<td>October 29 - November, 2011</td>
<td>India (Mumbai)</td>
<td>Core Trip</td>
</tr>
<tr>
<td>November 27 - December 10, 2011</td>
<td>United Kingdom (London)</td>
<td>Benchmark</td>
</tr>
</tbody>
</table>

It is evident from Table 1.7 that the fieldwork (between five sites) was carried out over a relatively short time period. In total, 46 full interviews were carried out in person. This meant that while work was being carried out on one primary site, it was also necessary to make initial arrangements for the following one or two sites simultaneously. By leaving approximately one month in between each field trip, it was possible to learn and slightly adjust strategy based on the experiences accumulated from each trip. It also reduced the risk associated with undertaking one single trip that connected the three primary countries, in case of unforeseen circumstances arising in one of the locations (e.g., illness or an accident). One small, but vital, lesson learnt from the first field trip abroad (Russia) was the importance of having a local SIM card. During the subsequent trips to India and China, it was a priority to acquired a local SIM card at the earliest possible moment.\footnote{Although both China and India are notoriously bureaucratic, it was quite simple to obtain a SIM card. It involved some paperwork but it was not difficult at all (one just needs to remember to bring a passport).}

Having a local phone number allowed for interviewees and local contracts to, for example, easily reach me in case of last minute changes to the meeting arrangements.

It became apparent in 2010 that my studies would mostly likely, funding permitting, take me to Russia, India and China to conduct fieldwork. The substantial lead time before the actual fieldwork allowed for me to establish contact with a number of other students in St Andrews that I discovered were interested in facilitating this project. These contacts both helped in securing interviews in Russia, India and China, and helped me to better navigate and understand these very different cultures.

Before any actual fieldwork can be carried out, the University of St Andrews stipulates that researchers obtain ‘Risk Approval’ (Appendix C) and ‘Ethics Approval’ (Appendix D) from their school or department. The ethics committee recommended that each interviewee should sign a participant consent form (anonymous data) before any interview could commence (Appendix E). The participant form briefly explained the rights of the interviewee (e.g., that they...}
could terminate the interview at any point in time) and assured the participant that the data would be stored and processed responsibly.

The next stage consisted of undertaking a number of pilot interviews to test the flow of the questions and the design of the interview agenda, to establish approximately how long an interview would take and also to pick up some early indications of the issues facing the UK at that particular time. In this context six people in total (divided between four separate interviews) were interviewed. Two interviewees represented a governmental agency with strong international business connections. Three interviewees, split between two interviews in different parts of Scotland, were senior finance professionals. Lastly, a PhD candidate in Economics with family ties to one of the fieldwork countries was interviewed as well. Moreover, I also met with someone who worked in academia and consultancy, with extensive knowledge of carrying out international fieldwork.

During the pilot run, the email template that was used in approaching potential interviewees was refined (Appendix F). Moreover, each email would also include a letter of introduction from my supervisor, Professor Gavin C Reid. The letter provided certification value to my project and it also made the request more personable (Appendix G). The request email is somewhat long and detailed. The reason for this is twofold: Firstly, it was designed to minimise the distraction that it might otherwise cause interested interviewees. A significant number of interviewees agreed to meet on the basis of that initial email. Some potential interviewees would ask to see the interview agenda, which I would then email out in its most basic form (Appendix H). A time and place to meet was arranged by email, and I would not contact them again before the arranged time of the interview. Secondly, the email served as a screening process. If the interviewee was willing to read the somewhat long email, and to agree to the proposal (e.g., that I need a minimum of an hour to conduct the full interview), they would most likely be quite committed to helping out with the project. In retrospect, it is clear that this strategy worked well. Out of the 46 full interviews that were conducted between Scotland, Russia, India, China and London (in addition to having approximately 12 meetings on location and 10 telephone conversations from Scotland), only one person cancelled a meeting (in Shanghai). Other interviewees were also called away at short notice, but they either re-scheduled or managed to find senior colleagues who stepped in at the last minute.

As expected, it was a challenge across all sites (especially China) to obtain interview appointments and I made use of the snowball sampling strategy in each country. To secure interviews with senior stakeholders in the financial system (e.g., within asset management, accounting, investment banking, retail banking, regulators and academics) and other opinion makers in each country, a two-pronged strategy was used: Networking and cold emailing.

To ensure the highest possible success rate for the emails, a great deal of time

\footnotetext[11]{This was the general rule. However, for India, most of the interviewees requested that I contact them again once I had arrived in Mumbai to arrange a time and date to meet.}

\footnotetext[12]{In China, guanxi, is a form of networking, with both social and cultural implications. See for example Park & Luo (2001) on guanxi’s impact on Chinese firm performance.}
was invested in finding the direct contact details of perspective interviewees. The first step was to locate senior financial professionals in each location. This was achieved by accessing publicly available online material on conference attendance in each city (or country), looking for individuals who had given public speeches or made statements to the media. The assumption was that outgoing people would be more interested in engaging with my topic and that it would help improve the chances of securing interviews. The aim was to email around 50 individuals in each country. Russia was the most open country in terms of finding direct email addresses, whereas China proved to be the most difficult. However, there is something of a system to allocating email addresses in many international organisations, which helped reach interviewees. For example, a perspective interviewee may have been contacted for the Russia part of the study. In order to reach someone from the same organisation in, say, Mumbai, it would only be a matter of substituting <.in> for <.ru> in the email address. People were contacted in this fashion from around two weeks before the field trip commenced. Once in the country, it was possible to make use of the snowball sampling strategy. Interviewees would recommend other professionals contacts, which meant that more targeted emails could be constructed once in the country.

Networking from the UK also proved quite useful in securing interviewees and extending my network ‘on the ground’ in each location. One such strategy was to meet with students in St Andrews, who could either help with finding suitable interviewees in their home country or help me to better understand their culture. I made a number of new friends through this process and they have been extremely kind and helpful during the fieldwork period. Another strategy was to contact friends, or friends-of-friends, who might have connections in these countries. I was lucky enough to secure extremely competent facilitators for Russia, India and China (i.e., a number of people in (or from) these countries who took a keen interest in my project and helped me greatly in securing interviewees and in making sure that I had local people I could contact if I had any questions). Lastly, a number of national and international organisations, which were assumed to be well connected in either Russia, India or China, were approached. British entities, European entities and Danish entities (as I am Danish) were contacted in this regard. This strategy also resulted in a number of interviews and contacts.

For the last site, London, the strategy employed for Russia, India and China was simply repeated. The only difference was that the email template (Appendix I) and the letter of introduction (Appendix J) were adjusted accordingly. Across all sites it was mentioned to the interviewees that an initial finding summary would be written up and emailed out once all the trips had been completed. After each meeting, normally on the same day, an email would also be sent to the interviewee to thank them for their time. It was reiterated at that point that they would receive a brief summary of the fieldwork findings (see Appendix K for the ‘thank you’ template). The analytical summary, see Appendix L, was emailed out to approximate 70 individuals in March, 2012 (see Appendix M
for the follow-up email template).\textsuperscript{13} Approximately 30 individuals responded to thank me for the summary. Out of that group, 13 individuals expressed an explicit interest in receiving a URL link to the final thesis.

A Few Observations on Navigating Moscow, Mumbai & Shanghai

Moscow, although a very impressive city, has not yet developed an infrastructure to accommodate foreign business visitors or tourist. The airport, Moscow Domodedovo, which marked the start of the fieldwork in Russia, was not designed with non-Russian speakers in mind. It was something of a challenge to locate the onsite train station that connected the airport with the centre of Moscow. In the city centre the train station connects with the metro system, although it is not an intuitive process to continue the journey by metro. Once again, all signs were in Cyrillic. It took around five days before it was possible to travel on the metro without having to ask for directions (even then, this was accomplished by mapping out each trip before hand). To compensate for the lack of familiarity with the metro system and to ensure that I knew where to find each office or meeting location, I traveled one day early to each meeting location to ensure I knew the way. Interestingly, as discussed in Chapter 6, Moscow is building a new financial centre with impressive skyscrapers. However, to travel to this area was one of the biggest challenges on the metro. Although it was initially difficult to move around Moscow, people were very helpful and keen to give directions. Moreover, many young people spoke excellent English.

The next destination was Shanghai, China. The arrival in the international airport in Shanghai was an effortless experience, being guided through to passport control and onwards by signs in English and airport personnel. It was very simple and inexpensive to travel from the airport to the city centre. One could choose between taking the bullet train or taking the metro (which was the more inexpensive option). All stops on the metro are announced in Mandarin and English. Shanghai was the easiest place to navigate without having to ask for directions. The city is design to accommodate foreigners, however, the air quality would be a problem for a longer stay.

Mumbai was the last overseas trip. From the outset, Mumbai proved to be a vibrant and loud city. English is widely spoken in India, which made many things simpler. However, the only realistic way of moving around the city as a foreign visitor is by taxi. Most taxi drivers do not speak English and many are illiterate, which complicates matters to some extent. Addresses in Mumbai normally include a landmark. The taxi drivers would normally first find the area of the city and then they would ask people on the street for directions to the landmark. Then, once the landmark is found, you should be able to find the actual building. It works surprisingly well. I was impressed with the

\textsuperscript{13}To manage the large volume of emails between five sites in total, and with three rounds of email correspondence, I used the subject line to keep track of the different emails in my inbox. The first round of email I called [City (e.g. London) visit], the second round I called [City (e.g. London) visit - thank you] and the third round I called [City (e.g. London) visit follow-up].
entrepreneurial spirit I found in India.

1.3.3 Storage and Analysis of Data

After the completion of all the field trips, all the handwritten notes taken during the interview process were entered into MS Excel. The system was simple and effective. All interview headings and their codes were entered in the top row. Each heading was colour coded according to the paper colour it belonged to (e.g., globalisation is blue). Interviewee by code, time and date (e.g., Interviewee 18, 20/09/11, 10am) were entered in the first column. Moreover, breaks were made in the spreadsheet once a new site began and a colour was added to visually separate sites. Within this grid all comments from the interviews were entered. A “NB” in red was added to text cells that were deemed to be of extra importance during the data inputting stage. Some of the answers can overlap (or an interviewee may have suddenly come back to a previous heading), which meant that, at times, some information in one cell would also relate to the heading of another cell. When this happened, a small note was added in the cell (using the heading code of the topic it related to). At the end of the data inputting stage, a 56,000 word database had been constructed. As a result, for any heading (e.g., Regulatory Bodies), it is possible to scroll down to see the information entered for each interviewee (and by extension, each site). This database was then used to construct the initial findings summary emailed to all participants and subsequently used in the comparative case studies of each country, which constitute Part III of the thesis.

1.4 Outline of the Thesis

This thesis consists of nine chapters in total. Chapter 2 outlines the discussion on market efficiency and reviews key corporate governance literature relating to the scope of this thesis. In Chapter 3, we review some key literature on IPO underpricing, both empirical and theoretical. Chapter 4 is the quantitative chapter. Through an exploratory data analysis, it is determined that Russia, India and China are outliers in the IPO data set. Chapter 5 uses econometric modelling to estimate the impact of economic, demographic and institutional factors on IPO underpricing. Part III of the thesis is a qualitative analysis that builds on the quantitative analysis carried out in Chapter 4 and Chapter 5 (Part II). Part III consists of three case studies that are based around fieldwork carried out in Russia, India, China and United Kingdom. Lastly, Chapter 9 contains the conclusions based on the preceding analysis.

Market efficiency tells us that we should not be able to consistently earn rate of return on investments above the risk premium. However, that would seem to be exactly the outcome for investors buying IPO shares in the primary markets in India and China, according to the Loughran, Ritter & Rydqvist (2008) data set. Moreover, it would seem that investors in Russia, a country that is normally associated with a corporate governance risk premium (as we
will discuss in Part III), see the lowest initial return on their IPO investments. Chapter 2 discusses briefly what pricing behaviour we should expect in efficient markets. The chapter also covers some key corporate governance literature, in preparation for the corporate governance issues which will be discussed as part of the fieldwork analysis in Part III of the thesis.

As we use cross-country IPO underpricing as a barometer for corporate governance failure, it is important to understand some of the factors that may drive underpricing, both within a country and between countries. We will discuss this in more detail in Chapter 3. In this chapter we will examine the US IPO market, which is interesting for a number of reasons. It is the most researched IPO market in the world and it should also be among the most efficient markets globally (arguably on par with London). And yet, the US IPO market experienced a significant pricing bubble in 1999-2000. We will discuss some of the factors that may have driven the IPO market during that period. We will also look in some detail at the most popular IPO pricing mechanism - bookbuilding. The actual process is not often discussed in the IPO literature, although there is a fascinating dynamic in play during this process. We will conclude Chapter 3 on a theoretical note, by examining some key IPO pricing models. In doing so, we are presented with a stylised paradigm that may assist us in better understanding some of the IPO market dynamics.

Having covered some key literature on both corporate governance and IPO underpricing, we now move on to the quantitative analysis part of the thesis. Chapter 4 is an exploratory data analysis, which allows us to assess the data using a number of different analytical tools (for instance, scatter diagrams). In this chapter we look more closely at international differences in IPO underpricing, while also drawing on the Dreher (2006) KOF Index of Globalization in an endeavour to contextualise the analysis. We find that IPO underpricing is statistically significantly negatively correlated with globalisation; i.e., as a country becomes more interconnected with the global community, it should expect to see a decline in domestic IPO underpricing. We posit that increased globalisation is connected with increased transparency, more accountability and improved corporate governance standards. As such, it would make sense to expect this relationship. As our analysis uses a multi method approach, we will explore this connection in much more detail through analysis of the fieldwork (Part III).

Chapter 5 is dedicated to econometric modelling. We establish that a range of factors (economic, demographic and institutional) influence cross-country IPO underpricing. These are statistically significant results and, as we run a number of robustness tests (including testing for multicollinearity and trimming the samples to see if the coefficients are stable), it becomes clear that the model is relatively stable.

Moving into Part III of the thesis, which consists of Chapters 6, 7 and 8, we now have a number of key factors from our quantitative analysis, which can be explored in more detail through the qualitative analysis. The fieldwork, divided over Russia, India, China and United Kingdom, and based on a semi-structured interview schedule provides us with a great number of observations and comments to compare and contrast. Indeed, the database constructed on
the basis of the field notes comes to 56,000 words and it is supplemented by company material that was collected as part of the interview process.

Lastly, Chapter 9 draws together the analysis in its entirety and states the conclusions about the main findings.
1.4.1 Terms, Acronyms and Abbreviations

‘A shares’  Traded in mainland China (not open to direct foreign participation)

ABC  Agricultural Bank of China (One of the ‘Big Four’ state-owned Chinese banks)

AI  Asymmetric information models (endeavouring to account for the underpricing of initial public offerings)

AIM  Alternative Investment Market (Part of the London Stock Exchange catering for smaller businesses)

Alfa Bank  Biggest private bank in Russia

BC  Business combination laws (Anti-takeover legislation)

BE  Behavioural explanations models (endeavouring to account for the underpricing of initial public offerings)

BOC  Bank of China (One of the ‘Big Four’ state-owned Chinese banks)

Bookbuilding  Also known as firm commitment contracts

BRIC  Brazil, Russia, India and China (Country grouping)

BSE  Bombay Stock Exchange (in India)

CAG  Comptroller and Auditor General of India

CAPM  Capital asset pricing model

CBI  Central Bureau of Investigation (in India)

CBRC  China Bank Regulatory Commission (Regulator in China)

CCB  China Construction Bank (One of the ‘Big Four’ state owned Chinese banks)

CCTV  China Central Television

CIRSC  China Insurance Regulatory Commission (Regulator in China)

Clause 49  A corporate governance act that came into effect in 2005 in India
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR</td>
<td>Corporate social responsibility</td>
</tr>
<tr>
<td>CSRC</td>
<td>China Securities Regulatory Commission (Regulator in China)</td>
</tr>
<tr>
<td>Deloitte</td>
<td>Deloitte Touche Tohmatsu (One of the ‘Big Four’ global accounting firms)</td>
</tr>
<tr>
<td>E&amp;Y</td>
<td>Ernst &amp; Young (One of the ‘Big Four’ global accounting firms)</td>
</tr>
<tr>
<td>EDA</td>
<td>Exploratory data analysis</td>
</tr>
<tr>
<td>EMH</td>
<td>Efficient market hypothesis</td>
</tr>
<tr>
<td>FAS</td>
<td>Federal Antimonopoly Service (in Russia)</td>
</tr>
<tr>
<td>FCPA</td>
<td>US Foreign Corrupt Practices Act</td>
</tr>
<tr>
<td>FDI</td>
<td>Foreign Direct Investment</td>
</tr>
<tr>
<td>FII</td>
<td>Foreign institutional investor</td>
</tr>
<tr>
<td>Fixed priced offers</td>
<td>Also known as best effort contracts</td>
</tr>
<tr>
<td>FreeAltCur</td>
<td>Freedom to Use Alternative Currencies</td>
</tr>
<tr>
<td>FreqRep</td>
<td>Timeliness of Financial Disclosures</td>
</tr>
<tr>
<td>FSA</td>
<td>Financial Services Authority (Regulator in the United Kingdom)</td>
</tr>
<tr>
<td>FSDC</td>
<td>Financial Stability and Development Council (in India)</td>
</tr>
<tr>
<td>FTT</td>
<td>Financial Transaction Tax (Proposed by the European Union)</td>
</tr>
<tr>
<td>GloIndex</td>
<td>KOF Index of Globalization</td>
</tr>
<tr>
<td>GNI</td>
<td>Gross National Income</td>
</tr>
<tr>
<td>‘Great Firewall of China’</td>
<td>An information filtering mechanism that separate the Internet in China from the outside world</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>ICAI</td>
<td>The Institute of Chartered Accountants of India (Regulator in India)</td>
</tr>
<tr>
<td>ICBC</td>
<td>Industrial and Commercial Bank of China (One of the ‘Big Four’ state-owned Chinese banks)</td>
</tr>
<tr>
<td>IE</td>
<td>Institutional explanations models (endeavouring to account for the underpricing of initial public offerings)</td>
</tr>
<tr>
<td>IPO</td>
<td>Initial public offering</td>
</tr>
<tr>
<td>IRDA</td>
<td>Insurance Regulatory and Development Authority (in India)</td>
</tr>
<tr>
<td>JV</td>
<td>Joint venture (A partnership between two or more companies)</td>
</tr>
<tr>
<td>KPMG</td>
<td>Klynveld Peat Marwick Goerdeler (One of the ‘Big Four’ global accounting firms)</td>
</tr>
<tr>
<td>Laddering</td>
<td>When the underwriter artificially inflates the price of the initial public offering</td>
</tr>
<tr>
<td>M&amp;A</td>
<td>Mergers and acquisitions</td>
</tr>
<tr>
<td>MCG</td>
<td>Stock Market capitalisation Growth</td>
</tr>
<tr>
<td>MCR</td>
<td>Minimum Capital Requirement to start a business as share of GNI per capita</td>
</tr>
<tr>
<td>MICEX</td>
<td>Moscow Interbank Currency Exchange</td>
</tr>
<tr>
<td>MNCs</td>
<td>Multi-national companies</td>
</tr>
<tr>
<td>Multi-brand</td>
<td>Stores in India that sell several different brands under one roof (e.g., supermarkets). Most often associated with the discussion on whether India should allow foreign multi-brands to enter their retail market</td>
</tr>
<tr>
<td>NASD</td>
<td>National Association of Securities Dealers (in the US)</td>
</tr>
<tr>
<td>NPAs</td>
<td>Non-performing assets</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>NSCC</td>
<td>National Securities Clearing Corporation (in India)</td>
</tr>
<tr>
<td>NSE</td>
<td>National Stock Exchange (in India)</td>
</tr>
<tr>
<td>OAO</td>
<td>Overallotment option</td>
</tr>
<tr>
<td>OC</td>
<td>Ownership and control models (endeavouring to account for the underpricing of initial public offerings)</td>
</tr>
<tr>
<td>PBC</td>
<td>People’s Bank of China (Regulator in China)</td>
</tr>
<tr>
<td>PCAOB</td>
<td>Public Company Accounting Oversight Board (in the US)</td>
</tr>
<tr>
<td>PFRDA</td>
<td>Pension Fund Regulatory and Development Authority (in India)</td>
</tr>
<tr>
<td>PNs</td>
<td>Participatory notes. Used by foreign institutional investors to invest in the Indian financial market, without having to register with the regulators</td>
</tr>
<tr>
<td>Pop</td>
<td>Population</td>
</tr>
<tr>
<td>PSD</td>
<td>Private Sector Development variable (Defined as domestic credit extended to the private sector)</td>
</tr>
<tr>
<td>PwC</td>
<td>PricewaterhouseCoopers (One of the ‘Big Four’ global accounting firms)</td>
</tr>
<tr>
<td>QDII</td>
<td>Qualified Domestic Institutional Investor (Domestic institutional investors in China)</td>
</tr>
<tr>
<td>QFII</td>
<td>Qualified Foreign Institutional Investor (Foreign institutional investors in China)</td>
</tr>
<tr>
<td>QSSP</td>
<td>The Quebec Stock Savings Plan</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>Research and development</td>
</tr>
<tr>
<td>RBI</td>
<td>Reserve Bank of India (India’s central bank)</td>
</tr>
<tr>
<td>Red herring</td>
<td>The preliminary initial public offering prospectus filed with the regulators in the US</td>
</tr>
<tr>
<td>RTS</td>
<td>Russian Trading System Stock Exchange</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------</td>
</tr>
<tr>
<td>RWH</td>
<td>Random walk hypothesis</td>
</tr>
<tr>
<td>SAFE</td>
<td>State Administration of Foreign Exchange (Chinese government fund)</td>
</tr>
<tr>
<td>Sberbank</td>
<td>One of the two market-leading, state-owned, retail banks in Russia (in conjunction with VTB)</td>
</tr>
<tr>
<td>Sberbank Troika</td>
<td>Russian investment bank</td>
</tr>
<tr>
<td>SBI</td>
<td>State Bank of India (The largest bank, by far, in India)</td>
</tr>
<tr>
<td>SEBI</td>
<td>Securities Exchange Board of India</td>
</tr>
<tr>
<td>SEC</td>
<td>Securities and Exchange Commission (in the US)</td>
</tr>
<tr>
<td>SEO</td>
<td>Seasoned equity offering</td>
</tr>
<tr>
<td>Single-brand</td>
<td>Stores in India that sell only one brand under their roof (e.g., a Nike store)</td>
</tr>
<tr>
<td>SOE</td>
<td>State-owned enterprise</td>
</tr>
<tr>
<td>SOX</td>
<td>Sarbanes-Oxley Act of 2002 (in the US)</td>
</tr>
<tr>
<td>Spinning</td>
<td>Where an underwriter or broker allocate an underpriced initial public offering to prospective future clients</td>
</tr>
<tr>
<td>The Bank</td>
<td>The Bank of England</td>
</tr>
<tr>
<td>TSX</td>
<td>The Toronto Stock Exchange</td>
</tr>
<tr>
<td>Underwriter</td>
<td>An investment bank that act as the intermediate between the issuer and the investors</td>
</tr>
<tr>
<td>Undpria</td>
<td>Underpricing of initial public offerings</td>
</tr>
<tr>
<td>VPFs</td>
<td>Voucher privatisation funds (in Russia)</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>VTB</td>
<td>One of the two market-leading, state-owned, retail banks in Russia (in conjunction with Sberbank)</td>
</tr>
<tr>
<td>VTB Capital</td>
<td>Russian investment bank</td>
</tr>
<tr>
<td>WOS</td>
<td>Wholly owned subsidiary</td>
</tr>
<tr>
<td>WTO</td>
<td>World Trade Organisation</td>
</tr>
</tbody>
</table>
### 1.4.2 Interviewee Overview

**Table 1.8A: Interviewees’ Codes, Status, and Sector, United Kingdom**

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Code</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Economist</td>
<td>A_U</td>
<td>Professional Association</td>
</tr>
<tr>
<td>Director</td>
<td>B_U</td>
<td>International Investment Bank</td>
</tr>
<tr>
<td>Chief European Economist</td>
<td>C_U</td>
<td>International Investment Bank</td>
</tr>
<tr>
<td>Global Chief Economist</td>
<td>D_U</td>
<td>International Investment Bank</td>
</tr>
<tr>
<td>Equity Strategist</td>
<td>E_U</td>
<td>Asset Management Firm</td>
</tr>
<tr>
<td>Global Head of Mergers &amp; Acquisitions</td>
<td>F_U</td>
<td>Big Four Accounting Firm</td>
</tr>
<tr>
<td>Operation Risk Manager</td>
<td>G_U</td>
<td>UK Retail Bank</td>
</tr>
<tr>
<td>Managing Director</td>
<td>H_U</td>
<td>Financial Services Company</td>
</tr>
<tr>
<td>Senior European Economist</td>
<td>I_U</td>
<td>International Investment Bank</td>
</tr>
<tr>
<td>Analyst</td>
<td>J_U</td>
<td>UK Investment Bank</td>
</tr>
</tbody>
</table>

**Table 1.8B: Interviewees’ Codes, Status, and Sector, Russia**

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Code</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Credit Analyst</td>
<td>A_R</td>
<td>Russian Investment Bank</td>
</tr>
<tr>
<td>Advisor to the Chairman</td>
<td>B_R</td>
<td>Russian Investment Bank</td>
</tr>
<tr>
<td>Strategic Analyst</td>
<td>C_R</td>
<td>Russian Private Equity Firm</td>
</tr>
<tr>
<td>Head of Banking</td>
<td>D_R</td>
<td>International Investment Bank</td>
</tr>
<tr>
<td>Managing Partner</td>
<td>E_R</td>
<td>Big Four Accounting Firm</td>
</tr>
<tr>
<td>Emerging Markets Broker</td>
<td>F_R</td>
<td>Russian Brokerage Firm</td>
</tr>
<tr>
<td>Senior Investment Officer</td>
<td>G_R</td>
<td>International Organisation</td>
</tr>
<tr>
<td>Head of Client Services</td>
<td>H_R</td>
<td>Asset Management Company</td>
</tr>
<tr>
<td>Chief Economist</td>
<td>I_R</td>
<td>International Investment Bank</td>
</tr>
<tr>
<td>Deputy Director, Research</td>
<td>J_R</td>
<td>Russian Retail Bank</td>
</tr>
<tr>
<td>Chief Economist</td>
<td>K_R</td>
<td>Russian Retail Bank</td>
</tr>
<tr>
<td>Finance Professor</td>
<td>L_R</td>
<td>Moscow based University</td>
</tr>
<tr>
<td>Chief Economist</td>
<td>M_R</td>
<td>International Investment Bank</td>
</tr>
</tbody>
</table>
### Table 1.8C: Interviewees’ Codes, Status, and Sector, India

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Code</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor of Economics</td>
<td>A_I</td>
<td>Mumbai based University</td>
</tr>
<tr>
<td>Director</td>
<td>B_I</td>
<td>International Organisation</td>
</tr>
<tr>
<td>Managing Director</td>
<td>C_I</td>
<td>International Investment Bank</td>
</tr>
<tr>
<td>Senior Economist</td>
<td>D_I</td>
<td>International Investment Bank</td>
</tr>
<tr>
<td>Research Analyst</td>
<td>E_I</td>
<td>Indian Investment Firm</td>
</tr>
<tr>
<td>Senior Vice President</td>
<td>F_I</td>
<td>Large Indian Corporation</td>
</tr>
<tr>
<td>Director</td>
<td>G_I</td>
<td>Private Equity Firm</td>
</tr>
<tr>
<td>Assistant Adviser</td>
<td>H_I</td>
<td>Financial Regulator</td>
</tr>
<tr>
<td>Associate Vice President</td>
<td>I_I</td>
<td>International Retail Bank</td>
</tr>
<tr>
<td>Director &amp; Chief Economist</td>
<td>J_I</td>
<td>International Investment Bank</td>
</tr>
<tr>
<td>Chief Operating Officer</td>
<td>K_I</td>
<td>International Investment Bank</td>
</tr>
<tr>
<td>General Manager</td>
<td>L_I</td>
<td>Indian Retail Bank</td>
</tr>
<tr>
<td>Professor of Finance</td>
<td>M_I</td>
<td>Mumbai based University</td>
</tr>
</tbody>
</table>

### Table 1.8D: Interviewees’ Codes, Status, and Sectors, China

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Code</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td>A_C</td>
<td>Big Four Accounting Firm</td>
</tr>
<tr>
<td>Client Executive</td>
<td>B_C</td>
<td>International Retail Bank</td>
</tr>
<tr>
<td>Chief Operating Officer (COO)</td>
<td>C_C</td>
<td>International Firm</td>
</tr>
<tr>
<td>Senior Product Manager</td>
<td>D_C</td>
<td>Asset Management Company</td>
</tr>
<tr>
<td>Senior Research Analyst</td>
<td>E_C</td>
<td>Chinese Investment Bank</td>
</tr>
<tr>
<td>Shanghai Branch Manager</td>
<td>F_C</td>
<td>International Retail Bank</td>
</tr>
<tr>
<td>Director</td>
<td>G_C</td>
<td>Private Equity Firm</td>
</tr>
<tr>
<td>Equity Analyst</td>
<td>H_C</td>
<td>Asset Management Company</td>
</tr>
<tr>
<td>Equity Analyst</td>
<td>I_C</td>
<td>Fund Management Company</td>
</tr>
</tbody>
</table>
Chapter 2

The Efficacy of Markets and Corporate Governance

2.1 Introduction

This chapter examines some key literature on market efficiency and corporate governance. We start by looking at what is meant by market efficiency and whether it applies to Russia, India and China. All three countries are relatively newly marketised economies; with some socialist attributes still evident in the three economies (for example, five-year investment plans are still popular government policies). In seeking to adapt their institutions and markets to more closely resemble the free market economic model, all three countries have encountered numerous challenges. The conundrum of why Russia (4.2 percent underpriced, 1999-2006), India (92.7 percent, 1990-2007) and China (164.5 percent, 1999-2005) differ greatly in the degree of underpricing of their IPOs, is a peculiarity that has remained unexplored (we introduced this discrepancy in Chapter 1 and it will be fully discussed in Chapter 4); yet, it is crucial for potential investors to understand the market forces in these countries before committing funds.

In Chapter 4, through an exploratory data analysis, we find the KOF Globalization Index (Dreher, 2006) and IPO underpricing (Loughran, Ritter & Rydqvist, 2008) to be negatively correlated to a statistically significant degree. This discovery will be further explored in Part III of the thesis, but for now we will focus on what increased globalisation may mean for convergence of corporate governance standards across the world. In Chapter 5 we build an econometric model that consist of economic, demographic and institutional variables. These variables also serve as a foundation for further enquiry, ‘in the field,’ to analyse corporate governance issues in Russia, India, China and the UK. As corporate governance is at the core of this thesis, we will use the remainder of this chapter to focus on different aspects of this area. Corporate social responsibility (CSR)
is, of course, a part of corporate governance, and we will review this area sepa-
rely before examining corporate governance as a control mechanism (both
internal and external).

## 2.2 Market Efficiency

Persistent deviation from efficient markets should not exist; as such anomalies
should be countered by arbitrage. The notion of market efficiency is often
attributed to Adam Smith (1776). Smith posits in ‘The Wealth of Nations’ that
unobstructed free markets result in a social optimum. This idea can also be
found in ‘The Theory of Moral Sentiments’ (1759), where Smith first mentions
the notion of the ‘invisible hand’ as a self-regulating force in the marketplace.
Looking specifically at stock market efficiency, a large body of research has been
dedicated to examining whether the notion of market efficiency holds. ‘At its
most general level, the theory of efficient capital markets is just the theory of
competitive equilibrium applied to asset markets’ (LeRoy, 1989:1583). Louis
Bachelier’s (1900) groundbreaking thesis was the first paper to use Brownian
motion (Brown, 1828) to mathematically model stock price movement, that is,
to put forward the idea that stock price movements are patternless and
unpredictable. In doing so, Bachelier established and formulated the random
walk hypothesis (RWH).

However, his work proved to be ahead of its time and was overlooked (for-
gotten) until Leonard Savage, in 1955, rediscovered the work. In the mean time,
Kendall (1953), Working (1958) and Roberts (1959) also suggest that time series
stock prices may follow a random walk. Kendall (1953:13) famously remarked:

‘[t]he series looks like a “wandering” one, almost as if once a week
the Demon of Chance drew a random number from a symmetrical
population of fixed dispersion and added it to the current price to
determine the next week’s price. And this, we may recall, is not the
behaviour in some small backwater market. The data derive from
the Chicago wheat market over a period of fifty years [...]’

The efficient market hypothesis (EMH) followed as the next development
in the literature.\footnote{See Sewell (2011) for a brief, yet comprehensive, narrative chronological overview of the
key contributions in the literature of the evolution of the EMH.} This theory was independently developed by both Fama
that ‘[a] market in which prices always “fully reflect” available information is
called “efficient.”’ Samuelson (1965) was the first paper to link capital market
efficiency with martingales.\footnote{A sequence \((X_n)_{n \geq 1}\) of random variables is said to be a martingale if
\(\mathbb{E}(X_{n+1} | X_1, \ldots, X_n) = X_n\) for each \(n \in \mathbb{N}\). See, for example, Los (2003).}

Fama (1970) treats the EMH as a fair game model (martingale) and assumes
that all publicly available information is priced into the share. In testing his
model, Fama divided the empirical test into three segments: the weak-form efficient market hypothesis, the semi-strong-form efficient market hypothesis and the strong-form efficient market hypothesis. The three forms are distinguish by the level of information incorporated into the share prices. The weak-form hypothesis reflects historical prices and trading volumes. The semi-strong-form hypothesis also includes public information, while the strong-from hypothesis also includes confidential price-sensitive information.

Subsequently there have been a number of seminal contributions to this area. Notably, Black & Scholes (1973) and Merton (1973) on option-pricing models. Black (1986) coins the terms ‘noise traders’ (i.e., irrational traders) and shows that liquid markets are dependent on this type of trader, while Laффont & Maskin’s (1990) work on imperfect competition and EMH suggests that the EMH may fail in markets where insider trading occur.

In explaining market efficiency, Malkiel (2003:60) states:

‘I will use as a definition of efficient financial markets that such markets do not allow investors to earn above-average returns without accepting above-average risks. A well-known story tells of a finance professor and a student who come across a $100 bill lying on the ground. As the student stops to pick it up, the professor says, “Don’t bother - if it were really a $100 bill, it wouldn’t be there.” [...] Markets can be efficient in this sense even if they sometimes make errors in valuation, as was certainly true during the 1999-early 2000 Internet “bubble.” [...] Above all, we believe that financial markets are efficient because they don’t allow investors to earn above-average risk adjusted returns. In short, we believe that $100 bills are not lying around for the taking, either by the professional or the amateur investor.’

However, in a 2006 speech, Professor Malkiel notes that there are markets that do not conform to the EMH. In particular, Malkiel states that the Chinese financial market is not efficient. If we were to accept Laффont & Maskin’s (1990) paper on the influence of insider trading on market efficiency, it may be true, according to evidence analysed in Part III of the thesis, that the Russian and Indian financial markets are also inefficient.

2.3 Corporate Governance

Shleifer & Vishny (1997:737) state that ‘[c]orporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment.’ Corporate governance is traditionally seen as the framework within which the agency problem between owners (i.e., the principals) and the managers (i.e., the agents) is controlled and managed. The agency problem is an integral part of the contractual view of the firm formally

---

developed by Coase (1937), Jensen & Meckling (1976) and Fama & Jensen (1983a,b). However, the idea can be traced back to Adam Smith (1776). Denis & McConnell (2004) note that the conflicts of interest and the cost associated with forming contracts and/or monitoring the controllers, will, ceteris paribus, reduce firm value. These ideas form the basis for research into corporate governance.

The following survey of corporate governance literature will be conducted within the framework of Globalisation, Corporate Governance, Institutional Structure and Competitive Strategy. These four topic are used as the basis for the fieldwork analysis, which will be discussed and examined in Chapters 6, 7 and 8 (Part III) of the thesis.

2.3.1 Globalisation

We discuss and link the KOF globalization index (Dreher, 2006) to IPO underpricing in Chapter 4 of this thesis. Moreover, the globalisation index is discussed in detail in Part III of the thesis, as it forms a cornerstone of the fieldwork carried out in Russia, India and China, and benchmarked against the UK.

The contributions of various countries to the development of modern corporate governance can be divided into three stages. Jensen & Meckling (1976) seminal paper marked the beginning of a flourishing of research into corporate governance mainly in the US. Throughout the 1970s and 1980s this body of US centric research continued to expand. However, by the early 1990s research focus started to include other countries particularly Japan, Germany and the UK. This development was followed in the early 2000s by the emergence of a truly international body of research into corporate governance from countries across the world.

Denis & McConnell’s (2004) international corporate governance survey finds that the international papers (papers on corporate governance outside the US) can be seen as two distinct generations of contributions. The first generation of international research papers on corporate governance is an extension of the principals of the US research that came before these papers (focusing mainly on board composition and equity ownership in individual countries). The second generation of international research focus on the impact on corporate governance of different legal systems across countries.

‘Globalization entails a lifting of barriers to the mobility of capital, products, and labor, leading to an intensification of competition for these factors across borders by firms and countries. Just as U.S. states competed for most of the twentieth century for franchise tax revenues by offering the best terms for incorporation (Easterbrook & Fischel, 1991; Romano, 1993) [...], nations could compete for firms and resources by creating the most efficient corporate governance environment’ Khanna, Kogan & Palepu (2006:70).

\[^{4}\text{Shleifer and Vishay (1997).}\]
Gugler, Mueller & Yurtoglu (2004) note that cross-country competitive forces may drive a ‘race to the bottom’ scenario, as managers prefer counties with weak corporate governance which will allow them to press their own interests over the best interests of the shareholders. In this context they note that the US state of Delaware was the clear winner within the intra-US race to attract corporations. Whether Delaware won the ‘race to the bottom’ (Carey, 1974) or the ‘race to the top’ (Winter, 1977 and Romano, 1993) is open to debate. Both Winter (1977) and Romano (1993) attribute Delaware’s success to its strong legal framework and experienced judges. Crucially, however, the US competition dynamics were underpinned by both similar federal law requirements and national stock exchange regulations (the two most important institutions of corporate governance in the US, according to Gugler, Mueller & Yurtoglu). Nonetheless, the US race may be indicative of the importance of the legal institutions when a company seeks to relocate its business. Gugler, Mueller & Yurtoglu tentatively conclude that cross-country corporate governance competition may lead to a separating equilibrium in the future. If the world were not to converge on a variation of the Anglo-Saxon corporate governance system, it may see a two-tier system: One for multinational companies with access to the global financial markets and the other for mainly family owned companies listing in their respective countries with share ownership concentrated among the founding family (these local entities may eventually gain access to the global capital market through the acquisition of a multinational company). Khanna, Kogan & Palepu (2006) state that the distinction between de jure and de facto convergence is one aspect of the corporate governance convergence that has not been sufficiently emphasised.\(^5\) Hansmann and Kraakman’s (2001) paper, ‘The End of History for Corporate Law,’ finds that globalisation of the capital markets has led to an increased focus on efficiency gains and as a result promoted de facto convergence of the shareholder-oriented model (through outperforming the three other main corporate governance alternatives: the managerialist model, the labor-oriented model, and the state-oriented model). Hansmann & Kraakman continue by noting that this convergence momentum will have spillover effects into policy making, which in turn will ensure that corporate governance convergence will continue to happen both in law making and in practice. These theses are based in various forms on the efficiency convergence hypothesis and assume that eventually a global homogenous best-practice corporate governance system will emerge. However, this may not be the case.

\(^5\)De Jure convergence refers to convergence of corporate governance laws across countries, whereas de facto convergence refers to convergence of actual practices.
office on the ground that everything worthwhile to invent already
had been invented’ Gevurtz (2011:479).

There are proponents of corporate governance divergence who argue that the
Darwinian view of efficiency driven corporate law convergence may not hold.
Mark J. Roe (among others) argue that the key to corporate governance and
ownership evolution is ‘path dependence’. Roe finds that this effect is structure-
driven (i.e., linked to the initial corporate ownership structure of a country) and
rule driven (i.e., linked to current corporate structures & institutions and the
lobbying of interest groups). Notably, however, both Banner (1997) and Coffee
(2001) argue against the notion that the evolution of corporate law is policy
based. They posit that law changes are due to economic and financial drivers.

Interestingly, it may be that the discussion regarding the de facto/de jure
convergence (race to the top/bottom) or divergence of corporate governance
is, in effect, somewhat academic. Clarke (2011:99) states that ‘[t]he foreign
business community has been telling China for years that it must improve its
corporate governance regime or face a loss of investment, but the threat has
proved empty. And foreign investment continues in Russia, despite corporate
governance practices described by Bernard Black and his co-authors (2000) with
terms such as “kleptocracy,” “looting,” and “plunder.”’ It would seem that pro-
jected monetary gains may, to some extent, take precedence over weak corporate
governance practises within a country when firms are looking to expand their
operations internationally.

2.3.2 Corporate Governance

Corporate governance is a vast area of research and there are many nuances to
explore within the topic. Returning to Shleifer & Vishny (1997) for a moment
(from Section 2.3), who note that corporate governance is concerned with how
the providers of finance to corporations can ensure a return on their invest-
ment, may help to explain the complexity of the topic. Ensuring a return on
investments is dependent on a country’s judicial system, the effectiveness of its
institutions, the flow of information within the country, as well as corporate ac-
countability and transparency among other issues. In this thesis we will narrow
the discussion to corporate social responsibility, internal corporate governance
controls and external corporate governance controls. In doing so, we capture the
main aspects of the corporate governance issues explored within the framework
of the fieldwork carried out and analysed in Part III of the thesis.

Before we continue to analyse these issues in more detail, Young, et al.
(2008:199) make an interesting and, on the basis of the fieldwork carried out in
this thesis, correct observation:

‘In short, the corporate governance structures in emerging economies
often resemble those of developed economies in form but not in sub-
stance (Backman, 1999; Peng, 2004). As a result, concentrated own-

---

6See, among others, Roe (1994); Roe (1996) and Bebchuk & Roe (1999).
ership and other informal mechanisms emerge to fill the corporate governance vacuum. While these ad hoc mechanisms may solve some problems, they create other, novel problems in the process. Each emerging economy has a corporate governance system that reflects its institutional conditions. However, there are a number of similarities among emerging economies as a group; conflicts between two categories of principals are a major issue.

2.3.3 Corporate Social Responsibility

The area of corporate social responsibility (CSR) encompasses a wide variety of issues and interests and, as such, it has proven difficult to settle on an agreed definition of the term in the academic and corporate literature. This notwithstanding, Wood (1991:695) notes that ‘[t]he basic idea of corporate social responsibility is that business and society are interwoven rather than distinct entities[...].’ McWilliams & Siegel (2001:117) emphasise the voluntary aspect of CSR by stating that they ‘define CSR as actions that appear to further some social good, beyond the interests of the firm and that which is required by law’.

Dahlsrud’s (2008) paper, ‘How Corporate Social Responsibility is Defined: an Analysis of 37 Definitions,’ concludes that CSR definitions consistently refer to five dimensions: Environmental, Economic, Social, Stakeholder and Voluntariness. However, Dahlsrud goes on to suggest that it may be more important for companies to understand that CSR is socially constructed and is dependent on the specific social context.

Taking one step back, it may be useful to consider the origin of CSR. Andrew Carnegie (1889), with the essay ‘Wealth’, is often credited as being one of the pioneers of CSR (see e.g., Kim, Nofsinger & Mohr (2010); Lantos (2001) and Wulfson (2001)). However, Cochran (2007) notes that Andrew Carnegie promoted private philanthropy but did not explicitly advocate charitable corporate action in this area. Cochran states that the US court case ‘Smith v. Barlow’ in 1953 marked the starting point of modern day corporate giving and opened the door to considerable corporate philanthropy. Academically, Howard R. Bowen’s (1953) book, ‘Social Responsibilities of the Businessman,’ arguably ushered in the modern approach to CSR, although, as pointed out by Carroll (1999), the title of the book would suggest that there was either no businesswomen at the time of writing or that they were not recognised in the formal literature.

McWilliams, Siegel & Wright (2006) lament the fact that a clearly defined and widely agreed upon definition of CSR has proven elusive and they note that this has made it difficult to fully understand the contribution of CSR. In this context, Garriga & Mele (2004:51) find that:

---

7Andrew Carnegie, the nineteenth century industrialist, had a strong connection to St Andrews and the surrounding area. He was born in Dunfermline, Scotland, but emigrated with his parents to America as a boy. He built most of his fortune through the American steel industry.

8Carroll (1999) offers an excellent US-centric survey on the evolution of CSR from mainly the 1950s up to the late 1990s.
‘[...] this field [CSR] has grown significantly and today contains a great proliferation of theories, approaches and terminologies. Society and business, social issues management, public policy and business, stakeholder management, corporate accountability are just some of the terms used to describe the phenomena related to corporate responsibility in society. Recently, renewed interest for corporate social responsibilities and new alternative concepts have been proposed, including corporate citizenship and corporate sustainability. Some scholars have compared these new concepts with the classic notion of CSR (see van Marrewijk, 2003 for corporate sustainability; and Matten et al., 2003 and Wood and Lodgson, 2002 for corporate citizenship).’

Garriga & Mele introduce a classification system in an endeavour to map out the contributions to CSR literature. They categories CSR theories into four groupings:

1. Instrumental theories: CSR is used as a strategic tool for profit maximisation (see Friedman, 1962).
2. Political theories: The two main lines of contributions are Corporate Citizenship and Corporate Constitutionalism.
3. Integrative theories: Basically, CSR is used in response to evolving demands by society.
4. Ethical theories: Based on the principle of ‘the right thing to do’ and seeking to improve society (including normative stakeholder theory).

Even within these sub-sections it may be difficult to find coherence. For example, the meaning of ‘corporate citizenship’ may vary between papers. Matten, et al. (2003, cited by Garriga & Mele), notes that there are three views of ‘corporate citizenship’: A limited view, a view equivalent to CSR and an extended view. On this basis, it is understandable that it may be difficult to compare results between studies.

Lastly, on CSR, it should be emphasised that CSR is not a universally accepted pursuit. In the CSR literature the debate can be summarise as Friedman (1962) v. Freeman (1984). Friedman (1962:133) famously states:

‘Few trends could so thoroughly undermine the very foundations of our free society as the acceptance by corporate officials of a social responsibility other than to make as much money for their stockholders as possible’

In direct contrast to the shareholder view held by Friedman, Freeman’s (1984) seminal book stresses the importance of the firm’s stakeholders by analysing the notion of ‘“management” as “a fiduciary relationship to stakeholders.”’ (Freeman, 1984:vi), with Freeman’s classic definition of a stakeholder as ‘[...] any group or individual who can affect or is affected by the achievement of the organization’s objectives.’ (Freeman, 1984:46).
2.3.4 Internal Corporate Governance Controls

There are a number of internal corporate governance controls that can, or should, be used to ensure that the company is run in the best interest of the owner(s) (e.g., shareholders). These controls vary in effectiveness between countries, as we will discover and discuss in detail in Part III. For now we will discuss company boards, remuneration, monitoring and audits.

Company Boards and Performance Monitoring

Fama & Jensen (1983a) note that the board of directors is the apex of the firm’s decision control system, while its members do not proportionally share the risk of the wealth effects stemming from their decisions. Anderson & Reeb (2004) examine the role of family ownership influence among US boards with founding-family ownership. This phenomenon that is of particular importance in Russia, India and China today, where families often retain the overall control of the board of directors and independent directors are only independent in name, as we will discuss further in Part III. Anderson & Reeb conclude, in line with agency theory, that firms with balanced boards of independent directors (i.e., both consisting of family members and outsiders), were of the highest value. In contrast, firms with boards that mainly consist of family-owner members and few independent directors, performed worse. It was also found that families seek to exclude independent directors from their firms, while outside stakeholders endeavour to place independent directors in their firms. As such, independent directors should ideally serve to mitigate conflicts of interest on boards. That is not to say that the board composition should not be endogenous. Demsetz & Lehn (1985) were among the first to suggest that a firm’s governance structure develops endogenously, as agents respond to the challenges that face the firm.\footnote{See Coles, Lemmon, & Meschke (2011) on the difficulty in measuring endogeneity in corporate finance.}

This ties in with Andres & Vallelado’s (2008) findings. Andres & Vallelado conclude that banks with larger and not excessively independent boards, might prove more effective in firm monitoring and in advising roles, and ultimately create more value. This notwithstanding, Masulis & Mobbs (2011) note that although the board of directors plays an essential part in the corporate governance framework, it still remains somewhat unclear what makes boards effective. Masulis & Mobbs suggest that until recently the corporate governance literature has not distinguished between insider that simply follow the CEO lead, and as such raise the firm’s agency costs, and well informed insiders that ensure better decision making in the board room. According to Masulis & Mobbs, inside directors with outside directorships are linked to better firm performance.

Board remuneration is also a topical issue, as we have seen a number of reports in 2012 on shareholders blocking executive pay packages.\footnote{Kollewe (2012), reporting for the Guardian Newspaper, lists a short timeline (mid-April to early May) of shareholder protests on executive pay.} As HU, a Managing Director at an international financial services company in London, remarked with concern: “Board remuneration is still murky. How is it influenced
and changed? Difficult to understand the determination of remunerations!” Core, Holthausen & Larcker (1999:371) find that the root of board compensation is related to agency problems:

‘Overall, our results suggest that firms with weaker governance structures have greater agency problems; that CEOs at firms with greater agency problems receive greater compensation; and that firms with greater agency problems perform worse.’

Bebchuk & Fried (2003) also suggest that the motivation for executive compensation is an agency problem. While Jensen & Murphy (1990), in their widely cited paper, conclude that CEO compensation is not strongly performance related. However, Hartzell & Starks (2003) find that there is a statistically significant positive correlation between the sensitivity of performance compensation packages and concentration of institutional investor ownership. Moreover, Hartzell & Starks suggest that there is a negative correlation between the level of compensation and institutional ownership. On this basis, they conclude that institutional investors mitigate agency problems between shareholders and managers. However, Cornetta, Marcusb & Tehranian (2008) find that earnings management increases when CEOs are tied to option compensation, although, again, institutional investors are found to have a mitigating effect on agency problems.

Audits

Cohen, Krishnamoorthy & Wright (2010) observe that in recent years in the US, there has been an increased focus in corporate governance on ensuring truthful financial reports and detecting fraud. However, they conclude that audit committees in general are not effective and that they lack the influence to ensure that they are an effective part of overall corporate governance practises. On the other hand, Agrawal & Chadha (2005), in examining the likelihood of a company restating earnings, find that audit committees that are headed by an independent director with financial expertise are less likely to issue an earnings restatement. The opposite is found to be the case for companies with a founding family CEO. However, Turley & Zaman (2004) warn that there is no automatic correlation between the design of the audit committee (e.g., the independence of members) and firm performance. Turley & Zaman go on to suggest that more research is needed in this area. When fraud has been detected and the company is looking to restore its reputation, Farber (2005) finds that corporate governance (e.g., audit) improvements have no influence on institutional holdings and the rate of analyst followings. However, there is a marked increase in share prices when corporate governance standards are raised, implying that investors appreciate higher corporate governance standards.

The US Sarbanes Oxley Act (SOX) of 2002 has had a considerable effect on audit practises, not only in the US but also internationally where it has served as inspiration for other lawmakers. For example, SOX inspired Clause 49 in India, which we will cover in more detail in Chapter 7, The Indian Tiger. Although SOX has been widely implemented, it has not, on balance, been well
received in academic circles. Romano (2005) note that the Act was rushed through congress amid corporate accounting scandals (famously Enron) and with a high degree of media attention. Deakin & Konzelmann (2004) argue that the real lessons of the Enron case were not incorporated into SOX, as it was mistakenly assumed that the Enron collapse was due to the failure of the board in monitoring the company.\footnote{Deakin & Konzelmann (2004) also note that the UK’s Higgs Review of Non-Executive Directors (Higgs, 2003) similarly misunderstood Enron’s collapse as being due to a failure of monitoring.} However, Deakin & Konzelmann posit that it was the wider, ruthless, company focus on maximising shareholder value that led to a breakdown on internal governance controls and subsequently saw the company implode. Chhaochharia & Grinstein (2007) conclude that companies which are less compliant with the SOX Act earn positive abnormal returns in comparison to companies that are more compliant. While, Zhang (2007) find that SOX imposes significant costs on firms.

However, there are also proponents of the Act. Coates (2007) suggests that the core ideas incorporated in SOX, had been developed over a number of years prior to the rush to pass the act. Moreover, Coates recommends that critics of the Act should focus their attention on the Public Company Accounting Oversight Board (PCAOB) and the Securities and Exchange Commission (SEC) to encourage them to cut or reduce requirements and restrictions that are excessively costly. Leuz (2007), in addition, suggest that some of the literature on the SOX Act may have attributed firm costs to the Act that are actually part of a wider market trend. Leuz acknowledges that the one-size-fits-all Act may have imposed significant costs on firms, but states that we do not currently have enough evidence to confidently attribute increased firm costs to the SOX Act. Leuz concludes by also noting that more emphasis and focus should be placed on the SEC and the PCAOB implementation of the Act.

2.3.5 External Corporate Governance Controls

External corporate governance controls are mechanisms that complement the internal corporate governance functions in a company. These are tools that allow outside stakeholders (even society in general) to influence corporate practices. Media scrutiny, divulgence of financial statements, shareholder activism and regulators are all elements that can directly influence firm behaviour. Moreover, well-functioning markets impose some discipline on firms. Market competition (contestable markets), the managerial labour markets and the mergers & acquisitions market are all factors that are subject to market dynamics and can influence managers behaviour.

Media Scrutiny

Although media scrutiny is a potentially effective corporate governance tool, it is, of course, not one available in all countries.\footnote{See Reporters without Borders’s (2012) Press Freedom Index 2011/12, for example.} As we will discuss in more
detail in Part III of the thesis, out of Russia, India, China and the UK, both Russia, and in particular China, currently censor and control their media. This notwithstanding, media pressure may even have had an impact in Russia. Dyck, Volchkova & Zingales (2008) find in their 1999 to 2002 study, that the Hermitage Fund in Russia, headed by William Browder, used the Anglo-American media to pressure the Russian authorities and companies into improving corporate governance standards in targeted companies with some effect.\textsuperscript{13}

Dyck and Zingales (2003) suggest that media and social control are linked and that they serve an essential function in reducing agency risk in companies. Berglöf & Claessens (2006) note that in some countries (notably not Russia, India or China, on the basis of the information gather through the fieldwork and discussed in Part III), social norms act as the first line of defence against poor corporate governance practices, with formal regulations becoming a secondary tool. However, for social pressure to be effective in a corporate setting, access to a relatively free media is essential. Baron (2006) observes that a free media can conduct their own investigations but that it also provides pressure groups with a cost effective way of communicating with the general public. In Friedman’s (1999, Ch. 8, cited by Baron (2006)) study of activist driven ecological boycotts, 22 cases out of 24 were aimed at the news media. Coyne & Leeson (2004:40) posit that a free media is one of the tools needed to generate economic development, as ‘a free media is critical for shifting games of conflict to games of coordination.’

\section*{Shareholder Activism}

Becht, et al. (2010) define shareholder activism as shareholder actions aimed at influencing firm boards and management behaviour. There are a range of actions available to shareholders in their endeavour to promote firm changes, as contained in this quote refering to the seminal work of Hirschmann (1970), ‘Exit, Voice, and Loyalty’:

‘Actions range from threatening the sale of shares (“exit”), letter writing, meetings with management and board, to asking questions at shareholder meetings and the use of corporate voting rights. Under a common definition, an activist shareholder is a shareholder “who tries to change the status quo through ‘voice,’ without a change in control of the firm” (Gillan and Starks, 1998).’ Becht, et al. (2010:3094)

Moreover, it may be that different shareholder groups prefer different activism strategies. Klein & Zur (2009) conclude that hedge funds tend to focus on more profitable companies than other private activists in the US. Additionally,\textsuperscript{13}

\footnotesize{\textsuperscript{13}Hermitage Capital Management: http://hermitagefund.com/#}

Browder (2011), in the Wall Street Journal, notes that due to his campaign to increase transparency in the Russian corporate world, he was banned from entering Russia in 2005. Moreover, he alleges that $230 million was stolen from his company in Russia by officials and his lawyer was later found dead in prison.
hedge funds target cash flow agency costs, as opposed to other private activists, who target changes in the company’s investment strategies. Del Guercio, Wallis & Woidtke (2008) examine 150 ‘just vote no’ or ‘withhold the vote’ campaigns from 1990 to 2003 in the US. These are relatively new and low cost shareholder activism strategies used to shame boards into aligning their actions more closely with shareholder interests. Del Guercio, Wallis & Woidtke find that evidence would suggest that the strategy can be successful under some circumstances; the strategy is found to be effective in pressuring boards into either firing underperforming CEOs or taking other remedying action. However, activist campaigns focused more on principles of corporate governance are not normally successful. Del Guercio, Wallis & Woidtke also note that these campaigns may have a positive spillover effect on other companies in the portfolio of the activists, when these companies observe the campaign and take corrective measures in their own organisation.

Classic corporate governance theory would argue that a single large blockholder will have the most influence over firm strategies, as the single large blockholder has an incentive to exersice their ‘voice’ rather than exit (Edmans & Manso (2011)). Cronqvist & Fahlenbrach (2009:3941) similarly find that ‘blockholders with a larger block size, board membership, direct management involvement, or with a single decision maker are associated with larger effects on corporate policies and firm performance.’ And yet, as Edmans & Manso note, most firms have a fragmented ownership structure, with multiple small blockholders. This ownership fragmentation gives rise to free-rider issues and reduces the incentive to ‘voice’ concerns. On the other hand, the fragmentation may discipline managers through threat of ‘exit’. When shareholders express their dissatisfaction through competitive trades, more information is priced into the equity. Palmeter (2002:1437-38) suggests that larger shareholders have been successful in influencing company strategies through ‘the threat (actual or implied) of selling their holdings and driving down the price of the targeted company.’ Moreover, Aggarwal, et al. (2011:25) find that institutional investors are able to improve corporate governance practices in other countries when they invest internationally, ‘beyond the effect of government regulations’.

Yet, shareholder activism has not been uniformly seen as effective in the corporate governance literature. Black (1998:459) laments the perceived lack of activist commitment by US institutional investors and notes:

‘A small number of American institutional investors, mostly public pension plans, spend a trivial amount of money on overt activism efforts. They don’t conduct proxy fights, and don’t try to elect their own candidates to the board of directors. Legal rules, agency costs within the institutions, information costs, collective action problems, and limited institutional competence are all plausible partial explanations for this relative lack of activity. The currently available evidence, taken as a whole, is consistent with the proposition that the institutions achieve the effects on firm performance that one might expect from this level of effort - - namely, not much.’
Regulatory Framework

Regulators, governmental bodies and self-regulating organisations, play an integral part in external corporate governance mechanism through monitoring and controlling firm behaviour. Black Kraakman & Tarassova (2000), for example, suggest that one reason why the Russian privatisation process of the 1990s resulted in very poor corporate governance standards, was that the regulators were simply too inexperienced in overseeing and controlling the firms.

Becht, Bolton & Röell (2002) suggest that there are at least two reasons why regulators are needed in the markets. Firstly, if it was left to the founder or the shareholders to dictate the rules governing the company, conflicts of interest would arise and result in inefficient rules. For example, as noted by Becht, Bolton & Röell, antitakeover defenses would be one area of conflict between the different agents. The founder, or even shareholders, may want strong antitakeover defenses to maximise their benefits from a takeover, which in turn may excessively reduce hostile takeover activity. It may also be that shareholders will look to increase their benefits from a takeover, at the expense of employees and other creditors. Secondly, even if a framework could be design to incentivise firms to produce efficient rules, managers or owners could easily alter or break the rules ex post facto. A fragmented shareholder ownership will not have the incentives to incur costly firm monitoring, that is, shareholders are faced with a collective action problem, which would be alleviated by the presence of a regulator. However, Klapper & Love (2004) find that companies in countries with especially weak shareholder protection can, to some extent, improve shareholder rights on a firm level. However, Klapper & Love continue to note that firms cannot fully overcome the lack of strong enforcement and effective legislation.

Regulators, of course, operate within a wider legal and judicial framework. La Porta, et al. (2000:24) argue that a legal approach is key to improving corporate governance:

‘Financial markets need some protection of outside investors, whether by courts, government agencies, or market participants themselves. Improving such protection is a difficult task. In part, the nature of investor protection, and more generally of regulation of financial markets, is deeply rooted in the legal structure of each country and in the origin of its laws. Marginal reform may not successfully achieve the reformer’s goals. In part, the existing corporate governance arrangements benefit both the politicians and the entrenched economic interests, including the families that manage the largest firms in most countries in the world. Corporate governance reform must circumvent the opposition by these interests. [...] It can take the form of opting into more protective legal regimes or introducing more radical changes in the legal structure. The integration of world capital markets makes such reforms more likely today than they have been in decades.'
Contestable Markets

Baumol’s (1982) seminal paper on contestable markets posits that there are markets which contain a small number of participants, and yet, display all the characteristics of a perfectly competitive market (due to the threat of firm entry).\(^{14}\) To qualify as a contestable market three key requirements must be met:

- Market entry and exit is free
- No sunk costs
- All firms must have access to the same technology

Baumol notes that, in the same way as perfectly competitive markets, contestable markets do not exist in the real world, although there may be industries that come close to displaying perfect competition characteristics. ‘[… ] perfect contestability, then, serves not primarily as a description of reality, but as a benchmark for desirable industrial organization’ Baumol (1982:2).

Allen & Gale (2000) find that the threat of takeovers in the UK and the US is often seen as an incentive for managers to act in the best interest of shareholders, while in, for example, Germany and Japan, banks are seen as ensuring good corporate governance practises. However, Allen & Gale suggest that a broader view is needed to understand firm agency issues. Companies in competitive markets need good managers with initiative to compete and move the company forward. In such a market, Allen & Gale argue that traditional agency is not valid. Instead of corporate raiders looking to take over the company, the best companies will be focused on taking over the market. Bertrand & Mullainathan (2003) suggest that it may be interesting to investigate whether changes in the takeover legislation would have a different impact on corporate governance in more or less competitive industries. Giroud & Mueller (2010:312) may answer that question using US data:

‘When we examine which agency problem competition mitigates, we find evidence in support of a “quiet-life” hypothesis. While capital expenditures are unaffected by the passage of the BC laws [business combination (BC) laws that weaken corporate governance], input costs, wages, and overhead costs all increase, and only so in non-competitive industries. Similarly, when we conduct event studies around the dates of the first newspaper reports about the BC laws, we find that while firms in non-competitive industries experience a significant stock price decline, firms in competitive industries experience a small and insignificant stock price impact.’

The Disciplinary Takeover

Although much discussed in the academic literature, and a high-profile corporate governance mechanism, Becht, Bolton & Röell (2002) note that disciplinary takeovers are relatively rare (and very costly) occurrences, even in the US and the UK. This is not to say that they cannot act as a disciplinary force in the markets. Jensen’s (1986) classic paper on takeovers, find that the restructuring of both Phillips and Unocal happened under the threat of takeover action, and resulted in gains of around 20 to 35 percent in market value. Jensen suggests that two types of companies in particular lend themselves to becoming takeover targets: poorly performing firms with poor management and exceptionally successful firms that have large free cash flows which refuse to pay out to shareholders.

Danielson & Karpo¤ (1998) examined 20 US corporate governance takeover provisions, divided into four categories: external control provisions (e.g., poison pills, also known as shareholders rights plans), internal control provisions (for instance, supermajority vote requirement, where the company raises the required level of approval of an action to above the minimum level required by law), state takeover laws (e.g., freeze-out law, where the state bars the takeover company from conducting business with the acquired company for a specified period of time) and other miscellaneous provisions (e.g., confidential voting, where managers and shareholders are only informed of the vote totals).

Jarrell & Poulsen (1987) notably find that the announcement of takeover defences results in a decline in the firm’s share price. However, Stráskaa & Waller (2010) posit that low bargaining power firms may find it value-enhancing to adopt more antitakeover provisions. Meanwhile, Deakin & Singh (2009:32) argue that:

‘In summary, contrary to current conventional wisdom, an active market for corporate control is not an essential ingredient of either company law reform or financial and economic development. The economic and social costs associated with restructuring driven by hostile takeover bids, which are increasingly seen as prohibitive in the liberal market economies, would most likely harm the prospects for growth in developing and transitional systems. Developing countries simply cannot afford the burden of the extremely expensive, and hit and miss system of management change that takeovers represent.’

Hansmann and Kraakman (2001) posit, in Section 2.3.1 on globalisation, that corporate governance is converging globally. They posit that regulation of takeovers will follow suit and the US (which is currently more pro-defence) will either converge to the European model (inclined to limit takeover defence options), or vice versa.

15 Phillips: www.philips.com
Unocal merged with Chevron Corporation in 2005: www.Chevron.com
2.4 Conclusion

As we noted in the beginning of the chapter, persistent deviation from efficient markets should not exist, as such anomalies should be countered by arbitrage. In efficient markets investors should not earn above-average risk adjusted returns. However, as discussed, various practises, such as insider trading (which would seem to be an issue in all three countries, based on the evidence gathered during the fieldtrips), can make markets inefficient.

Although we can trace corporate governance and agency problems back to Adam Smith (1776), it remains a topical issue. As the world becomes increasingly globalised, new corporate governance issues will arise. For example, when we consider convergence of corporate governance standards, it remains to be seen whether it will be a ‘race to the bottom’ or a ‘race to the top’ for countries. Although SOX may be misguided in its approach to remedy agency problems, it has become a template for corporate governance considerations around the world. This may indicate that market forces are driving improvements in this area. However, as discussed, corporate governance dynamics are complex issues and some mechanisms may work better in some countries than in others. For example, disciplinary takeovers may be a motivational force in the US and the UK, but they are rarely (if ever) seen in Russia, India or China.
Part II

Part II: Quantitative Analysis: Market Inefficiency, IPO Underpricing as a Barometer
Chapter 3

Market Inefficiency

3.1 Introduction

Chapter 3, which is the first chapter in Part II of the thesis, reviews some key literature on IPO underpricing. This chapter will account for both empirical and theoretical contributions to the IPO literature. It is a selective review, which emphasises more the empirical, rather than the theoretical, contributions to the literature. This balance reflect the thesis as a whole. We start by defining IPO underpricing and reviewing the phenomenon of underpricing in the context of the US. In particular, we focus on the factors that may have contributed to the technology pricing bubble in the late 1990s in the US (i.e., the dot-com IPO bubble in 1999 and 2000) and how IPO pricing factors differ between the US and Canada. Next, we briefly discuss the difficulty in establishing common, cross-country factors that may explain underpricing. Selling mechanisms, with particular emphasis on the bookbuilding mechanism, is discussed next. We include a step-by-step description of the bookbuilding process, which is not often seen in the IPO literature. We conclude the chapter by focusing on some of the key theoretical IPO models; this further helps us understand the dynamics governing IPO underpricing.

We use IPO underpricing in this thesis as a barometer of market inefficiency and corporate governance failure on a national level and, as such, it is important to cover the key issues within the IPO literature before moving onto the quantitative analysis, which will complete Part II. Once we have concluded the quantitative analysis in Part II, we will substantiate and extend our findings through fieldwork, which will be documented and discussed in Part III of the thesis. This research strategy is in accordance with the multi-method approach that, as noted by Teddlie & Tashakkori (2009) in their book on mixed method research, has become increasingly used in empirical studies, especially since the early 1990s.
3.2 Initial Public Offerings

There are three main anomalies associated with initial public offerings (IPOs): initial underpricing, long-run underperformance and cyclical issue activity. We will focus on initial underpricing in this thesis. IPO underpricing (Undpri) is normally measured as the percentage difference between the price the issuing company sells at (the offer price) and the following market price. Most studies into the area use the first-day closing prices when detecting and measuring the underpricing, that is, 
\[
Undpri = \left( \frac{\text{Issue price}}{\text{Closing price of first day of trading}} \right) \times 100.
\]
Academics use first-day returns, initial returns and underpricing to denote the same phenomenon. This is not to say that all IPOs are underpriced on the first day of trading. Ritter & Welch (2002) report that US IPO data indicates that between 1980 and 2001, 70 percent of IPOs were underpriced. However, of the remaining 30 percent, 16 percent experienced zero price movement after one day of trading.

3.3 US IPO Performance: 1980-2011

The US, and to some extent the UK, have traditionally been the main areas of empirical enquiry when trying to establish why IPO underpricing occurs.\(^1\) Later, as the literature became more internationally orientated, it became clear to analysts that underpricing was a global phenomenon.\(^2\) Although this thesis focuses on cross-country underpricing of IPOs, it may be informative to use a single country to illustrate some of the key issues associated with IPOs. In this section, we will initially focus on the US as the basis for review of IPO activity, and then we will compare it to its neighbour, Canada, in the following section (3.4).

Average IPO underpricing by country fluctuates significantly from year to year. Moreover, so does the IPO issuing activity level. As we will discuss in Part III when it comes to recent events, Russia, India and China have all experienced relatively slow IPO markets in 2011. Table 3.1 indicates that the US has also experienced a relatively low level of IPO listings in 2011, compared to most of the previous years from 1980 onwards.


\(^2\)Engelen & van Essen (2010) provide a current international analysis on IPO underpricing.
Table 3.1: Average First day Returns and Annual Number of IPOs, 1980 to 2011

<table>
<thead>
<tr>
<th>Year</th>
<th>Mean First-day Return</th>
<th>Number of IPOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>6.1%</td>
<td>200</td>
</tr>
<tr>
<td>1981</td>
<td>6.0%</td>
<td>220</td>
</tr>
<tr>
<td>1982</td>
<td>10.3%</td>
<td>250</td>
</tr>
<tr>
<td>1983</td>
<td>7.5%</td>
<td>300</td>
</tr>
<tr>
<td>1984</td>
<td>7.8%</td>
<td>280</td>
</tr>
<tr>
<td>1985</td>
<td>7.2%</td>
<td>260</td>
</tr>
<tr>
<td>1986</td>
<td>7.0%</td>
<td>250</td>
</tr>
<tr>
<td>1987</td>
<td>9.1%</td>
<td>280</td>
</tr>
<tr>
<td>1988</td>
<td>9.3%</td>
<td>400</td>
</tr>
<tr>
<td>1989</td>
<td>9.5%</td>
<td>420</td>
</tr>
<tr>
<td>1990</td>
<td>13.0%</td>
<td>500</td>
</tr>
<tr>
<td>1991</td>
<td>10.0%</td>
<td>450</td>
</tr>
<tr>
<td>1992</td>
<td>11.3%</td>
<td>500</td>
</tr>
<tr>
<td>1993</td>
<td>11.5%</td>
<td>450</td>
</tr>
<tr>
<td>1994</td>
<td>11.7%</td>
<td>400</td>
</tr>
<tr>
<td>1995</td>
<td>11.8%</td>
<td>350</td>
</tr>
<tr>
<td>1996</td>
<td>12.0%</td>
<td>300</td>
</tr>
<tr>
<td>1997</td>
<td>12.2%</td>
<td>250</td>
</tr>
<tr>
<td>1998</td>
<td>12.4%</td>
<td>200</td>
</tr>
<tr>
<td>1999</td>
<td>51.4%</td>
<td>300</td>
</tr>
<tr>
<td>2000</td>
<td>11.5%</td>
<td>250</td>
</tr>
<tr>
<td>2001</td>
<td>7.7%</td>
<td>200</td>
</tr>
<tr>
<td>2002</td>
<td>8.9%</td>
<td>250</td>
</tr>
<tr>
<td>2003</td>
<td>9.1%</td>
<td>300</td>
</tr>
<tr>
<td>2004</td>
<td>9.3%</td>
<td>350</td>
</tr>
<tr>
<td>2005</td>
<td>9.5%</td>
<td>400</td>
</tr>
<tr>
<td>2006</td>
<td>9.7%</td>
<td>450</td>
</tr>
<tr>
<td>2007</td>
<td>9.9%</td>
<td>500</td>
</tr>
<tr>
<td>2008</td>
<td>24.8%</td>
<td>21</td>
</tr>
<tr>
<td>2009</td>
<td>16.1%</td>
<td>25</td>
</tr>
<tr>
<td>2010</td>
<td>14.2%</td>
<td>30</td>
</tr>
<tr>
<td>2011</td>
<td>12.3%</td>
<td>35</td>
</tr>
</tbody>
</table>

Source: Constructed using Ritter (2012) data.

Table 3.1 illustrates IPO proceeds-weighted average underpricing data from Amex, NYSE and NASDAQ in the year from 1980 to 2011 in the US (see barchart). Additionally, Table 3.1 displays the total number of offerings per year, in excess of 5 dollars per share, within the same time frame for the US (see scatter diagram). Ritter (2012) divides the period from 1980 to 2011 into sub-periods: 1980-1989: 6.1 percent average underpricing; 1990-1998: 13.0 percent average underpricing; 1999-2000: 51.4 percent average underpricing and 2001-2011: 11.5 percent average underpricing. As Table 3.1 shows, the modest initial returns of the 1980s were followed by more pronounced underpricing during the 1990s, with an explosion in the levels of both activity and underpricing occurring during 1999 and 2000. The early 2000s saw a re-adjustment of the US markets, with a correspondingly sharp drop in both activity levels and levels of underpricing. From 2003 to 2011 the IPO market has fluctuated at around 10 percent to 14 percent in underpricing, with the exception of 2008. Proceeds-weighted average underpricing for 2008 is 24.8 percent with 21 offerings, while equal-weighted average underpricing is only 6.4 percent, according to Ritter.

3As a matter of definition, proceeds-weighted means that when calculating the yearly average returns, IPOs are weighted by size.
4Calculations are based on proceeds-weighted returns.
The significant difference in the 2008 average is due, in part, to Visa Inc (the world’s largest IPO at the time) skewing the result. Visa Inc was 28.4 percent underpriced (floated at $44 per share, while trading at $56.5 at the close of the first day of trading). The implication of these observed variations in IPO activity levels is to suggest that different models are required in order to explain IPO initial returns over different periods, as institutional structures evolve and market dynamics change.

3.3.1 The 1999-2000 US IPO bubble

The US 1999-2000 IPO bubble may serve to illustrate the complexity of some of the forces governing underpricing. The clear spike around 1999 and 2000 in Table 3.1 has been linked to the greater dot-com bubble phenomenon. There are numerous explanations as to why the dot-com period experienced this increase in underpricing and they may not be mutually exclusive.

Ljungqvist & Wilhelm (2003), in a seminal paper on the dot-com bubble, attribute the underpricing spike to changes in the issuing companies’ characteristics (e.g., more technology-driven firms listed) and selling behaviour. CEOs, venture capitalists (VCs) and investment banks all reduced their equity stakes significantly during the tech bubble, while insiders increased the magnitude and frequency of sales in the secondary market. As the ownership structure became more fragmented during the bubble period, this reduced monitoring incentives. Moreover, ‘directed share programs’, which were present in 24.7 percent of all US IPO deals in 1996, rose to 79.2 percent in 1999 and 92.6 percent in 2000. The combination of these factors may have reduced the incentive of the issuing firms’ management to minimise underpricing.

Loughran & Ritter (2002) analyse US data from 1990 to 1998 and argue that a number of factors lead to increased underpricing during ‘hot issue’ periods, such as the period from 1999 to 2000. Combining considerations of prospect theory and increased agency problems may give rise to increased underpricing. Loughran & Ritter argue that company managers failed to get upset by significant underpricing, because they also saw their own net wealth increase (through retained shares). This coupled with potential agency problems may have given rise to increased underpricing. Benveniste & Spindt (1989) posit that underwriters work in the best interest of the issuing company, facilitating price discovery and finding potential offer buyers. However, Loughran & Ritter suggest that self-interested underwriters may underprice an issue to make it easier to sell (in line with Baron & Holmstrom (1980)) and manipulate sales commission in order

---


6 Directed share programs: Schemes where family members, friends, employees, suppliers, VCs and others could buy shares at the IPO offer price, potentially increasing the issuer’s incentive to underprice.
to maximise their profits. Smith & Pulliam (2002) report that the National Association Of Securities Dealers (NASD) was investigating whether Wall Street firms allocated desirable IPO allocations to favoured investors during the bubble period in return for inflated commissions on other share trades. This also ties in with laddering, which is further explored by Bradley, et al. (2009).\footnote{Laddering is a process whereby the underwriter allocates IPO shares to a specific client on the condition that the client buys additional shares in the secondary market at a higher price.} Bradley, et al. examine laddering as a factor in underpricing during the period of 1993 to 2003. They conclude that laddering did play a role in underpricing throughout this period and particularly during the dot-com bubble. Somewhat surprisingly, they find their laddering analysis to be robust for the 2001 to 2003 period – a period after the SEC had increased IPO laddering oversight and litigation. On this basis, Bradley, et al. conclude that laddering may be a contributing factor to underpricing, but not the main source.

In 2001, investors sued dozens of high-profile investments banks and brokerage firms alleging that they had inflated IPO after-market prices in hundreds of tech companies through laddering. It was only in April 2009 that the case was settled and the investors awarded $586 million, without the defendants admitting wrongdoing.\footnote{Jones (2009).}

If widespread laddering did exist during the dot-com bubble, it would have increased underpricing. It may also help to partially explain why top-tier underwriters went from issuing the least underpriced offers (in the 1980s) to being involved in the highest underpriced offers during 1990s and the bubble period. Carter & Manaster (1990) and Carter; Dark & Singh (1998) find that in the 1980s the most prestigious underwriter were associated with less underpricing. They reason that prestigious underwriters could identify the most suitable and desirable firms to take public, that is, that the prestigious investment banks would provide certification, thus reducing the need for underpricing and increasing their fees in the process. However, both the Beaty & Welch (1996) and the Cooney et al. (2001) papers subsequently find this relationship to be reversed at the beginning of the 1990s. This reversal is confirmed by Loughran & Ritter (2004), who note that higher underpricing in the 1990s, and in particular, during the dot-com bubble was associated with the top-tier underwriters. They attribute this reversal to issuers pursuing better analyst coverage (disregarding underpricing in order to attract banks with star analysts) and to firms’ involvement in spinning (until it was prohibited).\footnote{IPO spinning is where an underwriter (i.e., an investment bank) offers an allocation of underpriced shares to a prospective future IPO issuing client with a view to secure the rights to float their IPO.}

Bradley, et al. (2009) evaluate the claim that retail sentiment in the after-market forces up prices to an unsustainable level, resulting in initial underpricing and long-run underperformance; this behavioural explanation behind underpricing is an hypothesis supported by Ljungqvist, Nanda, and Singh (2006) among others. Bradley, et al. find a strong positive correlation between the number
of small trades (retail investors) and the level of underpricing. However, in the long run (up to three years) the shares are not found to be underperform. These conflicting findings by Bradley, et al. would suggest that evidence for the ‘retail sentiment’ persistence during the bubble period is weak, and that the period was not primarily driven by retail investors’ over-optimistic behaviour. This notwithstanding, Loughran & Ritter (2004) analyse the long-run performance of the 19 IPOs with first-day returns in excess of 300 percent during the bubble period. The 19 offers in question did underperform (compared to other dot-com IPOs) if held until December 2002. In this example, retail sentiment would seem to fit the evidence. Again, this would suggest that investor sentiment did not play a significant role during the bubble period, but that it may have inflated prices in some extreme cases.

Lowry, Office & Schwert (2010, cited by Bradley, et al.) posit that information asymmetry can manifest itself through aggregate demand uncertainty, which is most likely only resolved in the after-market. Lowry, Office & Schwert note that higher stock market volatility over time and firm characteristics associated with higher asymmetric information risk (smaller firms and/or firms with higher beta coefficients) are factors that amplify underpricing. Bradley, et al. confirm these findings; however, they note that the beta coefficient may not serve as a proxy for aggregate demand uncertainty. Rather, the beta coefficient may reflect other, undetectable, firm-specific variables.  

3.4 US - Canada IPO Market Comparison

When comparing the US and Canadian IPO markets, one might be struck by the difference in initial returns between the two countries; the US averages 16.9 percent (1960 - 2007) and Canada averages 7.1 percent (1971 - 2006). Intuitively, one might expect Canada to be subject to higher underpricing than the US, all things being equal. The US financial markets are much deeper and more liquid markets than are their Canadian counterparts. However, Professor Suret of Laval University in Canada states that there are several reasons why Canadian initial returns are significantly lower than in the US.  

First of all, it is simply impossible to compare Canadian and US IPOs, notes Professor Suret; they are not the same. Canada has a high proportion of penny stocks IPOs and they are normally disregarded in academic work. The Toronto Stock Exchange (TSX) is the de facto source for obtaining IPO data, leaving other entities uncovered.  

---

10 The beta coefficient is a part of the capital asset pricing model (CAPM) and measures systematic risk. Markowitz (1952) laid the foundation for the CAPM. However, it was more formally developed independently in a series of articles by Sharpe (1964), Lintner (1965) and Mossin (1966). CAPM was famously criticised by Fama & French (1992).

11 See chapter 4 (Table 4.1) for the full data set, which is obtain from Loughran, Ritter & Rydqvist (2008).

12 From personal communication with Prof Suret of Laval University on the 4th of April 2009.

13 The Toronto Stock Exchange: www.tmx.com
Suret goes on to observe that many large Canadian IPOs are often ‘false’ and associated with very small initial returns; this further complicates comparisons with other countries, as they are often included in cross-national studies. Since these ‘false’ IPOs tend to be large, they influence weighted average initial returns severely. They arise due to changes in statute of large corporations, not as a profit maximisation IPO exercise. These changes in status often result from a move from a mutual to a public company, from privatisation and, most commonly, from the transformation of traditional companies into income trusts.\footnote{See, for example, Anand & Iacobucci (2011) income trusts in Canada. Anand & Iacobucci note that these publicly-traded trusts have become a popular as financial instruments in recent years.}

The Canadian underpricing figure quoted in Table 4.1, is derived from two sources. Data from 1984 to 2002 was obtained from an article by Kryzanowski, Lazrak & Rakita (2005). Their final sample of 359 IPOs from the TSX is well described, however, they exclude penny stocks, amongst others. However, income trusts are not mentioned as being excluded from the sample. The average year, in the sample time frame, saw approximately 19 new companies floating on the TSX. The sample of 276 companies from 2003 to 2006 is from Dealogic, obtained by Ritter. In this second sample the average number of IPOs has risen to 69 per year - clearly a significant increase. The composition of the second sample is not explained further in the original source, however, it is possible that the sample composition has changed considerably - potentially biasing the overall findings toward a lower average.

Suret also notes that Canada did not experience the dot-com IPO bubble, which led to massive underpricing during 1999 and 2000 in the US.

Another reason for the differences in IPO pricing between the US and Canada, may be that in Canada, smaller and more risky companies (entrepreneurial ventures) are restricted from using IPOs to raise funds; they utilise reverse mergers instead. Carpentier & Suret (2009) find that the security regulations in place to prevent new ventures entering the stock market, and hence protect investors, are justified. This is due to the fact that the reverse merger companies are found to be of lower quality, without growth potential and, ultimately, that they significantly underperform as investment vehicles.

Lastly, on a regional note, the province of Quebec (two other provinces followed later) implemented a tax credit, in 1979, in order to encourage retail investors to provide more capital to the IPO market, notes Suret. The Quebec Stock Savings Plan (QSSP) ran until 2003. It was later revised and replaced in 2005 by the SMB Growth Stock Plan. Bédard, Coulombe & Paquette (2005) find that there is a significant negative correlation between the QSSP and the degree of initial returns. Thus, the QSSP is found to reduce the cost of capital for the companies eligible for QSSP support. However, the investors are the agents reaping the largest tax advantage from the scheme. Carpentier & Suret (2006) also find that companies benefit from the QSSP arrangement; again, cancelling out underpricing. Cormier & Suret (1997) note that the QSSP scheme is more effective in reducing underpricing in small companies. However, smaller companies that listed under the QSSP scheme performed very poorly in the
after-market. Indeed, both investors and brokers were unable to correctly price the shares floated under the QSSP, resulting in systematic overvaluations (cited by Carpentier & Suret, 2006). Furthermore, evidence would suggest that during the 1980s underpricing completely disappeared on the QSSP-backed shares. In contrast, during the same period non-QSSP IPOs were found to still have significant underpricing\(^\text{15}\). From 1982 to 2002 69.3 percent of the QSSP IPOs were clustered around the period from 1985 to October 1987. Consequently, the study could not be extended beyond 1992 due to significant changes in the issues over time.

### 3.5 Justified IPO Underpricing

Ritter & Welch (2002) look at US IPOs covering the period from 1980 to 2001, noting average underpricing to be 18.8 percent for the entire period. However, the daily market return averaged 0.05 percent, which is a significantly smaller return on investment. The contrast between the everyday average returns and average underpricing raises the question: Why are IPOs expected to reward investors more than the average market return?

To understand how widespread extraordinary underpricing is in the US and internationally, we would need to know when the valid risk premium stops and extraordinary profits starts. Loughran & Ritter (2004) see asymmetric information as the underlying cause of underpricing. They note that if asymmetric information is counteracted, underpricing will ‘be no more than several percent’ (Loughran & Ritter, 2004: 8). They go on to conclude that if underpricing exceeds this level, then profit maximisation is not the main objective and underwriters are not fully supporting the issuer.

### 3.6 International Difference and Underlying Factors

All countries, as far as is known, have exhibited IPO underpricing. Profit maximisation is normally taken as the key motivation behind the IPO offer.\(^\text{16}\) However, when considering country differences, it is helpful to keep in mind that IPOs can, and do, serve other purposes (e.g., political objectives, influencing and corruption).\(^\text{17}\) As we will discuss further in Part III, the investment climates and growth trajectories of Russia, India, China and the UK differ considerably. Take, for example, the flow of information in the different countries. In the UK,

\(^{15}\text{Suret, Cormier & Lemay (1990) found Ontario IPOs from 1979 to 1985 to be underpriced by an average of 12 percent. In addition, Bédard; Coulombe & Paquette (2005) state that non-QSSP shares form Quebec averaged 17.8 percent in underpricing. Both cited by Carpentier & Suret (2006).}

\(^{16}\text{See Loughran, Ritter, and Rydqvist (1994) on the topic.}

\(^{17}\text{For a comprehensive study on the economic and political objectives in privatisation IPOs see Jones; Megginson; Nash & Netter (1999). Spinning (bribery) is one example of undue influencing that is covered by Liu & Ritter (2010) among others.}

57
where we have a mature and well developed financial market, we also have a long tradition of our free press actively seeking out and reporting on corporate governance issues. On the other hand, press freedom is significantly curtailed in Russia, and the press is sophisticatedly censored and controlled in China. In India, the press became free in the early 1990s and it has proven instrumental in disseminating a number of corporate governance scandals.

The conundrum of US IPO underpricing is what most IPO literature has focused on. A long and innovative list of (mainly US) models has been developed to explain why, on average, a significant amount of money has been left on the table by issuing companies. However, the driving forces behind US initial returns may not be directly transferable to other countries; this further complicates matters. This is something also noted by Jenkinson & Ljungqvist (2001), as they comment that some factors behind US underpricing are noticeably absent in other countries; certain regulatory and institutional assumptions about the stock market in US models, are country specific and do not lend themselves to explaining underpricing on a global scale. Tinic’s (1988) model on legal liabilities, for example, may describe the US well. However, in many other countries, issuing companies and their underwriters experience insignificant economic risk of being sued, yet underpricing still occur (Ljungqvist, 2007). This notwithstanding, some US observations may still aid us in better understanding underpricing on an international scale.

There are not many papers dedicated to the issue of international differences. In one of the most influential papers on the topic, Loughran, et al. (1994) suggest that the international difference in IPO underpricing could be explained through a number of variables. Contractual mechanisms form the basis for their analysis of this issue. They also suggest that there may be underlying factors influencing the IPO pricing process. IPOs can, for example, be seen as a political tool in privatisations, profit maximisation, corruption or tax avoidance (Rydqvist (1997) notes that until 1990, IPOs were used as a tax avoidance tool in Sweden) depending on country specific circumstances.\textsuperscript{18}

In contrast, other research has taken a more regional approach in analysing the underlying reasons for cross-country differences; for example, Fung, et al. (2004) stress that the subscription costs incurred by investors in Asia are a contributing factor in international IPO underpricing discrepancies (as opposed to US and European markets). In Asia, investors are required to deposit subscription funds upfront when bidding for IPOs. These funds are inaccessible to the investor leading up to the stock allocation and do not accrue interest rate, thus inflicting both financial and opportunity costs. These drawbacks are accentuated by the fact that oversubscribed IPOs will return funds to unsuccessful bidders, with a time delay of between one and three weeks without interest payments on the capital.

\textsuperscript{18}See Jones, et al. (1999) for an extensive analysis of IPO privatisation issues.
3.7 Selling Mechanisms

One important issue in the pricing of IPOs is the actual mechanism used to establish the IPO’s market value. Jagannathan & Sherman (2006), among others, note the different pricing effects stemming from the three selling/pricing mechanisms: fixed price, auctions and bookbuilding. Today, as noted by Jagannathan & Sherman, the bookbuilding mechanism is the most popular tool to price IPOs across the world. The four countries under particular consideration in this thesis, Russia, India, China and the UK, all use bookbuilding. We will now briefly discuss two of the most popular pricing mechanisms, fixed price and auctions, before focusing in more detail on bookbuilding. The bookbuilding process, where the investment bank (underwriter) undertakes activities to establish the market value of the issuing firm, is a fascinating procedure. The actual stages of the process are not often documented or discussed in the IPO literature, however we list the seven stages here and briefly discuss some of the key issues.

Fixed priced offers (also known as ‘best effort contracts’) were the traditional way to take a company public (apart from in the US and Canada, where bookbuilding has always been the preferred modus operandi). The price is set before the demand curve has been established for the offer and marketing activities are limited; in general, road shows are not used to promote these offerings. As a result, this method is normally associated with the greatest degree of underpricing among the three methods. Jenkinson and Ljungqvist (2001) observe that if there is considerable uncertainty regarding the value of the company, this method could ensure a successful IPO; underwriters may not be willing to take the subscription risk or their fees would be prohibiting. By setting a sufficiently low offer price and shouldering the subscription risk themselves, the issuing company increases their chances of a successful flotation. Hence it is a more self-reliant method. Jagannathan & Sherman suggest that the fixed price mechanism also works better in smaller issues (less underwriter fees and fewer investors required) and that fixed price offerings may be the most effective method in developing countries as it is less vulnerable to agency problems.

Although auctions were first introduced in most countries during the 1980s, with more taking up auctions in the 1990s, they ultimately lost out (for the most part within years) to the fixed price method and bookbuilding. Of the three possible pricing mechanisms, auctions are associated with the least degree of underpricing; there may be a simple explanation for this. Jenkinson and Ljungqvist (2001) argue that auctions are inherently disadvantaged in discovering price sensitive market information when compared to bookbuilding. This may mean that issuing companies that are easier to value will choose auctions and that the companies with more valuation uncertainty will choose the bookbuilding process.

---

19 The road show is predominantly used by underwriters to gauge investor demand. Since the offer price, in a fixed price mechanism, is set from the outset a road show becomes somewhat redundant.

Regardless, auctions have fallen out of favour in most countries. It is difficult to say why this has happened. One line of argument, put forward by Degeorge, Derrien & Womack (2007) suggests that the more expensive bookbuilding method offers quid pro quo benefits for the issuing company, mainly in the form of increased positive research coverage by the lead underwriter. They linked this argument to a popular paper by Krigman, Shaw and Womack (2001), which finds that the primary factor behind switching underwriter for US companies issuing a Seasoned Equity Offering (SEO) was to obtain more research coverage, not to reduce underpricing. This line of argument would suggest that issuing firms and underwriters are in collusion, manipulating the market to their own benefit.

Another explanation, more concerned with the inherent flaws of auctions, has been advocated by Jagannathan & Sherman (2006). They note that all three types of pricing mechanisms have deficiencies and are open to the risk of undersubscription. They argue, however, that the fixed price method should replace auctions as it is more stable and can better control for risk. Moreover, in more developed countries, the bookbuilding process should replace the fixed price method as it facilitates better price discovery and offer discriminate investor allocation.

3.7.1 Bookbuilding

Bookbuilding (also known as ‘firm commitment contracts’) has now become the standard method of floating IPOs in most countries, including Russia, India and China. Although in the case of China, the IPO process is greatly influenced by the government, as we will discuss in more detail in Part III of the thesis. Indeed, as of 2006, it is the dominant pricing mechanism in 34 out of 46 countries surveyed by Jagannathan & Sherman (2006). Bookbuilding has the potential to increase market efficiency if implemented correctly and honestly. Benveniste & Spindt (1989) famously demonstrate that underwriters can facilitate the information/price discovery process and thereby reduce the need for underpricing. This is in contrast to Baron & Holmstrom (1980) who assume underpricing to be a by-product of agency problems; self-interested underwriters increase underpricing to minimise their sales costs/efforts. Both models may hold in different circumstances. Jagannathan & Sherman (2006) note that underwriters are ‘gatekeepers’ in the bookbuilding process. In countries with little banking oversight or competition, banks may face a moral hazard problem. Bookbuilding lends itself more to well regulated countries where banks have sufficient discretion to work independently, and yet, are held accountable for their actions. A surprising amount of financial misconduct has come to light in resent years in the US IPO market, highlighting the fact that agency problems may still be present in even the best-regulated countries.
The ‘Bookbuilding’ Process

To better understand some of the dynamics that drive the IPO pricing process, it may be helpful to briefly examining the bookbuilding process. The process can be broken down into seven distinct stages for the U.S.\(^\text{21}\) Every stage presents its own unique issues and is open to potential conflict between the market agents. It has proven a very successful way of taking firms public, but the process is vulnerable to abuse, which may in turn give rise to market inefficiencies.

The IPO process starts with a ‘bake-off’ or ‘beauty contest’ between different investment banks. The lead underwriter’s reputation, expertise, analyst coverage, fees and company valuation are essential elements in this selection process, note Ellis, Michaely & O’Hara (2000). However, Blodget’s (2012) fascinating behind-the-scenes article on the competition between Morgan Stanley and Goldman Sachs to become the lead underwriter on the 2012 Facebook IPO flotation, suggests that the selection process in fundamentally relationship driven. Blodget posits that Morgan Stanley’s success in the tech IPO sector started with their successful bid for the LinkedIn floatation, where Morgan Stanley outmanoeuvred Goldman Sachs.

‘In sucking up to LinkedIn before the IPO, Stanford [Managing Director, Goldman Sachs] and Goldman [Sachs] also made three key mistakes.

First, they entrusted the LinkedIn relationship to a relative peon: Stanford was merely the head of Goldman’s Global Internet group, whereas Grimes [Managing Director, Morgan Stanley] was the head of Morgan’s whole technology group. There’s nothing that tells you [more] about a firm’s commitment to your company than the rank of the banker assigned to you.

Second, Stanford sucked up to the wrong guy: He schmoozed LinkedIn’s founder and board member Reid Hoffman instead of the company’s CEO Jeff Weiner and CFO Steve Sordello, both of whom played a big role in the decision.

Third, Goldman got there too late.

For more than a year leading up to LinkedIn’s IPO, Michael Grimes and Morgan had been doing favors for LinkedIn’s executives—analyzing parts of their business, showing them deals, helping them with their finance operations—all the while building a relationship.

Goldman, meanwhile, showed up right before the IPO and said, basically, “Hi, we’re Goldman—hire us.”’ (Blodget, 2012:3)

Underwriters have been observed to initially set one valuation, only to adjust the offer price downwards at a later stage; this is known as ‘bait & switch’. Underwriter fees have been subject to some scrutiny and discussion in recent years. If the underwriter market were competitive, fees would be expected to

\(^{21}\) The bookbuilding process may vary somewhat in timing and stages between different countries, depending on their regulatory framework. This bookbuilding framework is based on Ellis, Michaely & O’Hara (2000), modified and extended using other sources.
converge to a low denominator. However, fees have been remarkably similar, and high, among underwriters, something documented by Chen & Ritter (2000). They find that, in the US, fees (i.e., gross spreads) would often be precisely seven percent. Hansen (2001) notes that the Chen & Ritter paper, ‘The Seven Percent Solution’, resulted in both a class action lawsuit against 27 banks for not competing on price and a Department of Justice investigation into underwriter collusion. Interestingly, as mentioned earlier, Krigman, Shaw & Womack (2001) find that of the companies that change underwriters for their seasoned equity offering (SEO), higher underwriter reputation and more analyst coverage are cited as the main reason for switching, not, maybe surprisingly, underpricing.

After choosing the lead investment bank, a letter of intent is produced. It outlines the agreement between the parties, including terms and conditions; specifying the fees (as mentioned, usually seven percent) and setting the lock-up period for company insiders (usually 180 days). The letter of intent provides the underwriter with an insurance policy in case the issuing company decides to withdraw. However, it may also be that the underwriter loses faith in the issuer during the process and wants to terminate the IPO process if, for example, the issuer’s financial position deteriorates or other new negative information comes to light. This, again, is something that can be covered in the letter. Typically, the letter also allows for an extra 15 percent of stocks to be issued by the underwriter. Known as an overallotment option (OAO), it has to be exercised within 30 days of the flotation. The OAO is a clever addition to the offer. If the issue increases in value in the after-market, the investment bank can issue another 15 percent of shares to cover their short position. The banks collect another fee for their services and the issuing company raises additional funds. If the issue performs poorly in the after-market and is treading below the offer price, the investment bank covers its short position on the open market – again, making a profit. The letter of intent remains valid until the Underwriting Agreement is implemented at the pricing stage.

The Registration Process is the next stage of the process. The company is legally required to register with the US Securities and Exchange Commission (SEC) in order to ensure transparency. The underwriter has to investigate the company’s financial position and verify the information provided by the company to the public, that is, perform ‘due diligence’. After the registration process is completed with the SEC, the document is turned into the preliminary prospectus or ‘Red Herring’ for the marketing process. The prospectus will normally include a filing range (the expected offer price range), which is the first public signal of the anticipated offer price. Benveniste & Spindt (1989) are the first to emphasise the importance of the price range in obtaining truthful pricing information from potential investors. Lowry & Schwert (2004) analyse the impact of public information on the IPO price range and conclude that the underwriters do also price all public information into the final offer price (as one would expect in an efficient market). Further highlighting the international differences in IPO pricing, Jenkinson, Morrison & Wilhelm (2006) note that the significance of the filing range differs between the US and Europe. In European IPOs, the initial price band is seldom revised and IPOs are normally priced
within that range. Jenkinson, Morrison & Wilhelm find that the European IPO pricing ranges are established at a later stage than in the US, allowing underwriters to price more information into the range.

The next stage is the Road Show. The prospectus is distributed to sales people and potential clients, (inter)nationally through the road show. Over a period of two to three weeks, the road show pitches the company to, predominantly, institutional investors. Normally, two teams are sent out to meet these potential investors; each team is headed by either the Chief Financial Officer (CFO) or the Chief Executive Officer (CEO). The teams representing the issuer are prohibited from disclosing any new information that has not already been published in the prospectus. Any new information that were to be mentioned, should subsequently also be divulged to the regulators and the market as a whole. Hence, the road show is less about selling and more an opportunity for the investment bank to gauge the level of interest, with a view to establishing a final price before selling allocations at a later date.

After the road show, the underwriter will consider the final price and allocation of shares. The day before, or even the same morning of, the IPO floating, the underwriter and the issuer meet to establish the offer price. The order books that have been filled in during the road show (hence the term ‘bookbuilding’) are of particular importance in striking a fair price. Jagannathan & Sherman (2006) note that it is crucial to the bookbuilding process that the underwriters have allocation discretion over the offer. Underwriters can underprice an issue to give investors an incentive to truthfully disclose pricing information, with underwriters only partly incorporating the new information into the price and with the understanding that the investor will be allocated some of the IPO for their information. Hence, allocation control is essential to the process.

Once the IPO has floated, the underwriter takes on a new potential responsibility: price stabilisation. Price stabilisation is a key activity undertaken by the lead underwriter after the issue, if required (see Chowdhry & Nanda (1996) Section 1.8.1, on a theoretical argument for the price stabilisation function). Market interference through using the overallotment option is only allowed at or below the offer price; and only during the first 30 days. This option, as described in the paragraph on the letter of intent, is an essential tool in supporting the offer price. In addition, underwriters are also know to take naked short positions in the market, suggested to be around five percent. However, banks are as perfectly entitled to buy up shares as any other investor, at any time, in the market to shore up support for any particular share. At this stage, the investment bank can also impose penalty bids on brokers, to reduce flipping activity.

The next stage is research coverage, which is a highly valued commodity in the financial market. Liu & Ritter (2011) posit that ‘analyst lust’ may partly drive underpricing in the US. This ‘service’ takes effect 25 calendar days after

---


23 Flipping: When an investor sells its shares soon after trading has commenced, in order to make a quick profit.
the IPO – often boosting the share price. Underwriters typically issue a ‘buy’
or ‘strong buy’ recommendation. As discussed in Part III, analysts (even in
London) are pressured not to issue sell recommendations as their bank would
fear the loss of future business from the affected company. In Russia (see chapter
6), one broker mentioned that companies would put strong direct pressure on
analysts that downgrade their investment grade. Bradley, et al. (2003) find that
from 1996 to 2000, on average, there was a three percent rise in share prices
when the quiet period expires. This is something that Ritter & Welch (2002)
note is difficult to reconcile with an efficient market.

Lastly, the lockup period expires, generally 180 days after the floatation.
Pre-IPO shareholders will now be able to sell their shares on the open market.
Venture capitalists, for example, often see an IPO as a profitable exit strategy.
Ofek & Richardson (2000) find that there is a permanent 1 to 3 percent drop
in the share price and a 40 percent increase in trading volume, as the lockup
period expires. The permanent share price decline is surprising, as an efficient
market should price this expected event into the initial price.

3.8 Key IPO Models

Over the past 30 years a wide range of theories and models have been con-
structed to explain why IPO underpricing occurs. Today, IPO underpricing
theories, endeavouring to capture the impact of potential influencing factors,
can be grouped into four overarching categories: asymmetric information (AI),
institutional explanations (IE), ownership and control (OC) and, finally, behav-
ioiral explanations (BE). As we covered in the section on the US IPO bubble
(3.3.1) and in the pricing comparison between the US and Canada (Section 3.4),
the complexity of the forces driving IPO pricing is substantial. It may be that
we need all four models to more fully capture the IPO pricing dynamics in the
US and internationally. In Chapter 4, we establish that there is a negative corre-
lation between IPO underpricing and globalisation. In other words, as a country
becomes more integrated into the world community, it should see a decline in
IPO underpricing. We take globalisation as a proxy for transparency, account-
ability and increased information flows. As such, it may not be surprising that
globalisation counteracts underpricing (although, as far as we know, we are the
first to formally make this connection). This relationship is in accordance with
the AI models that we list below in Table 3.2 and discussed from a theoretical
point of view in Section 3.8.1. As we will discover in more detail in Part III,
pricing factors may vary between countries. For example, in China, the state
controls firms’ access to the IPO market (adjusting supply as it sees fit) and
it has the final say in approving the offer price. In such an environment, it
may be that institutional factors are among the primary pricing determinants.
By contrast, in Russia, the state does not seem to directly interfere in the IPO
process. However, the Russian corporate market is notoriously opaque and AI
models must be among the primary factors in such an environment.
Table 3.2: Four Models Endeavouring to Explain IPO Underpricing

<table>
<thead>
<tr>
<th>Asymmetric Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rock (1986)</td>
</tr>
<tr>
<td>Booth &amp; Smith (1986)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Benveniste &amp; Spindt (1989)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Jenkinson &amp; Jones (2009)</td>
</tr>
<tr>
<td>Ljungqvist &amp; Wilhelm (2003)</td>
</tr>
<tr>
<td>(Ibbotson, 1975: 264) for later issues; a signal low-quality firms cannot afford to replicate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Institutional Explanations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tinic (1988)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Rydqvist (1997)</td>
</tr>
<tr>
<td>Taranto (2003)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ownership and Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brennan &amp; Franks (1997)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Behavioural Explanations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loughran &amp; Ritter (2002)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Ljungqvist, Nanda &amp; Singh (2006)</td>
</tr>
<tr>
<td>Liu &amp; Ritter (2011)</td>
</tr>
</tbody>
</table>

Table 3.2 represent the four key categories of IPO models. The asymmetric information (AI) area, the largest section in Table 3.2, is the most developed. One of the earliest theories was formed by Rock (1986) and is underpinned by the assumption that uninformed investors are subjected to adverse selection when bidding for IPOs. This ‘winner’s curse’, as it has become known, is counter-balanced by underpricing to keep uninformed investors in the market. Booth & Smith (1986) focus on underwriter certification. This line of argument is linked
to the winner’s curse phenomenon. It was initially suggested that prestigious underwriters could certify the IPO, so reducing asymmetric information and thereby cutting underpricing. This seemed to be the case in the 1980s, however during the 1990s this trend was reversed, according to Beatty & Welch (1996) and Cooney, et al. (2001). Loughran & Ritter (2004) posit that the Dot-com bubble distilling the effect seen in the 1990s even further. Benveniste & Spindt (1989), on the other hand, suggest that underpricing may help to facilitate information revelation during the bookbuilding process. Through underpricing, underwriters pay investors to truthfully reveal price sensitive information they may possess. That is, the underwriter works in the best interest of the issuer to optimise the issue price. This line of argument has been further extended by Benveniste & Wilhelm (1990) and Sherman & Titman (2002), amongst others. On the other hand, in a now classic paper, Baron & Holmstrom (1980) use a principle-agent model to suggest that self-interested underwriters deliberately underprice IPOs to reduce their selling costs. Underwriters are assumed to have superior knowledge of the IPO mechanism and Baron & Holmstrom posit that self-interested underwriters may underprice an issue to make it easier to sell. On a similar note concerning the principle-agent model, it has been suggested that allocations have been mis-used to benefit underwriters or company insiders. It may have been more of a contributing factor in the 1990s in the US, but the years 2000 and 2003 saw a tightening of the regulations, which significantly reduced the problem, according to Loughran & Ritter (2004). Signalling of firm quality, with a view to issue a successful SEO, is another type of AI model that has been promoted by Welch (1989) and Grinblatt & Hwang (1989). However, Jegadeesh, Weinstein & Welch (1993) found no strong evidence to support this line of reasoning.

Table 3.2 also lists a number of institutional models that seek to explain underpricing. Tinic (1988) (supported later by, for example, Hughes & Thakor (1992) and Hensler (1995)) suggest that underwriters see underpricing as a form of lawsuit avoidance, i.e., they underprice the issue in order to protect themselves from dissatisfied investors looking to be compensated in the courts. Drake & Vetsuypens (1993) and Lowry & Shu (2002) debate the validity of this model. It may be said that US enthusiasm for suing is not universal; however, on average, underpricing is seen across the world. Taxation issues may be another variable within the institutional models. Taranto (2003) notes that it may not drive underpricing, but may account for some of its variation.

The ownership and control (OC) models in Table 3.2 are defined by two opposite models - Brennan & Franks (1997) and Stoughton & Zechner (1998). Brennan & Franks posit that managers look to retain their control and influence over the company by deliberately underpricing the shares. Underpriced shares will be distributed in small amounts to outsiders. By spreading the ownership of the shares, managers achieve two benefits, namely, reduced monitoring, as it is relatively more costly to monitor a company if you only hold a small number of shares and a reduction in the threat of hostile takeovers due to a more dispersed ownership circle. While Stoughton & Zechner, on the other hand, suggest that underpricing is used to encourage monitoring by large investment
holders, reducing agency costs. Monitoring costs will be reflected in the IPO price, making it beneficial to management to facilitate monitoring. However, Hill (2006), using UK data, suggest that underpricing is not driven by ownership considerations.

Lastly, Figure 3.2 lists some behavioural models which seek to at least partly explain IPO underpricing. Loughran & Ritter (2002) seek to account, through Prospect theory, for why managers tend to not get upset about significant IPO underpricing. When shares increase in value immediately after the IPO, company directors also see their holdings increase in price. Here there is a relative loss in wealth and also a perceived gain in wealth. The firm’s directors add the loss and the gain together through mental accounting. They see the net benefit and, consequently, do not worry as much about the missed revenue opportunity. Ljungqvist, Nanda & Singh (2006) suggest that investor sentiment may explain IPO underpricing. Investor sentiment is manifested in overenthusiasm about future cash flows and investment risk. Retail investors, irrationally, bid up the price in the initial after market, which also results in long-run underperformance. Finally, Liu & Ritter (2011) posit that if issuing companies care about other matters than just price (for example, research coverage or industry expertise), the underwriting sector then becomes a series of oligopolies. Moreover, Liu & Ritter extend their reasoning to the underpricing of VC backed IPOs and conclude that ‘analyst lust’ may drive the IPO underpricing of such firms.24

3.8.1 Asymmetric Information models

Of the four categories listed in Table 3.2, asymmetric information (AI) models are the most developed in the IPO literature and as such, we will use this framework to further our understanding of the market dynamics. The asymmetric information models are generally made up of three key players: the issuing company, the underwriter and the investors (who can again, at times, be divided into informed and uninformed groups). The AI models assume that one of the agents knows more than the others and exploits this fact. It became evident from visiting Russia, India and China, that in these three countries there is a prominent fourth participant, namely, the state. We will discuss and analyse government involvement in the financial markets in more detail in Part III. In Russia, the government influence extends greatly into the business world, through non-transparent companies often owned by government officials. In India, the markets are still fairly heavily influenced by the regulators. Moreover, for China, the regulators (i.e., the state) control the listings process in some detail. For instance, the state decides what companies can list and at what time they can float on the stock exchange. At the last stage of the IPO process, the state also has the final say in approving the listing price.

24See, for example, Black & Gilson (1998) on the role of venture capital (VC) in the US stock market. Moreover, Reid & Smith (2008), through using a combined method (finance, economics and accounting), explore VC risk in UK high technology ventures.
Adverse Selection Models – A Brief Comparison

This thesis will solely focus on three adverse selection models within the AI framework (Rock (1986), Beatty & Ritter (1986) and Chowdhry & Nanda (1996)), in order to allow for a somewhat detailed examination and explanation of the IPO market seen through these models.

Rock (1986): The Winner’s Curse Model

One of the early pivotal theories in IPO underpricing was famously developed by Rock (1986). This theory is now known as the ‘winner’s curse’ model and it is based within the AI framework.25 The winner’s curse model theorises that some investors have superior information to that of other investors and the firm itself. In addition, the underwriter plays a neutral role, as an intermediary, in the IPO, since the issue company is assumed to set the price and shoulder the under-subscription risk. In assuming that the issuing company takes the under-subscription risk, Rock is in fact modelling a fixed priced offer (best effort contracts), as in bookbuilding the underwriter takes responsibility for undersubscription (indeed, the underwriter directly buys all the IPO shares from the company just before the flotation and adds its fee to the public offer price). One function that the underwriter does perform is certification, that is, through its reputation it signals that the IPO price is a true reflection of the future prospects of the company. However, as documented by Beatty & Welch (1996) and Cooney, et al. (2001) by the 1990s, tier one underwriters were no longer offering certification value to their clients in pricing IPOs.

If an IPO is issued at a price below its true value (so it is underpriced), the informed investors will rush into the market, crowding out the uninformed investors. On the contrary, if the IPO is unattractively priced, only uninformed investors will buy it, which results in uninformed investors being subject to adverse selection. As we will discover in Chapter 8, The Chinese Dragon, this is very much the case in China today. The end result would be that uninformed investors drop out of the market altogether, resulting in undersubscribed IPOs. To prevent such an occurrence, the solution is to give a finite discount on all IPOs, to ensure uninformed investors are compensated for the ‘biased’ allocation that exists in the market.

To underline the dynamics within the model, Rock states five simple assumptions:

1. Informed investors have perfect information regarding the actual value at which the share will be trading in the after-market, $\tilde{v}$.

2. Informed investors are not able to sell private information in the market and also, due to regulatory constraints, borrowing of shares or short selling is not possible.

3. Informed demand, $I$, does not exceed the IPO’s mean value, $\tilde{v} Z$.

25The term ‘winner’s curse’ was attached to Rock’s model by a subsequent paper by Beatty & Ritter (1986).
4. Uninformed investors have uniform expectations regarding the distribution of $\nu$.

5. All investors possess the same utility and level of wealth (here taken to be 1).

The uninformed investors (total number denoted as $N_u$) are not able to predicate the size of their order after the realization of $\nu$, unlike their informed counterparts. Upholding assumptions (4) and (5), the uninformed investor would look to invest the same fraction of his wealth (denoted by $T$ and equal to 1), in a new issue. Since the model explicitly states that short selling and borrowing is not possible, each investor bids the positive share $T^* = \max(0, T)$.

The total dollar investor, $T_{tot}$, is then given, where $p$ is the offer price, by:

$$T_{tot} := \begin{cases} 
N_u T^* + I, & \text{if } p < \hat{v}; \\
N_u T^*, & \text{if } p > \hat{v}.
\end{cases}$$

The case where there is no over- or under-pricing expected by informed investors (that is, $p = \hat{\nu}$) is not explicitly covered by Rock. Presumably this is because the IPO would be priced ‘on the money,’ with no great risk of alienating investors. Indeed, no winner’s curse would exist in this case.

As discussed, the key to the fluctuating demand is whether $\hat{\nu}$ is above or below $p$. Accordingly, the issuer will experience either an under- or over-subscribed issue. In case $\hat{\nu} > p$, let us denote the probability that an order is filled by $b$ and in case, if $\hat{\nu} < p$, let us denote the probability by $b'$. Further, denote by $\tilde{N_u}$ the number of uninformed orders filled and $\tilde{N_i}$ the number of informed orders filled.

Then, rationing occurs, the issue value is given by

$$\tilde{N_u}T^* + \tilde{N_i} = pZ \text{ if } b < 1.$$  

Taking expectations, we obtain that either,

$$bNT^* + bI = pZ \text{ if } b < 1,$$

or,

$$b = \min(pZ/NuT^* + I, 1). \quad (3.1)$$

Likewise,

$$b' = \min(pZ/NuT^*, 1). \quad (3.2)$$

When $b < b'$, the probability of receiving an underpriced allocation, $\hat{\nu} > p$, is at most equal to the probability of receiving an overpriced allocation, $\hat{\nu} < p$. This phenomenon causes the uninformed investor to adjust downwards the valuation of a new IPO. As a result, to keep uninformed investors interested in the IPO, the issuer must factor a price discount into the offer price, thus
compensating uninformed investors for receiving a disproportionate number of overpriced shares.

The investors are assumed to have rational expectations regarding their potential allocation of under- or over-priced offers. Their allocation beliefs must equal the actual share distribution, stemming from the allocation mechanism. By equating investors’ beliefs into the allocation mechanism seen in equations (3.1) and (3.2), the equilibrium is achieved when

\[ b = \min\left[pZ/NT^*(b/b', p) + I, 1\right] \quad (3.3) \]

and

\[ b' = \min[pZ/NT^*(b/b', p), 1] \quad (3.4) \]

As the IPO price declines, the probability of receiving an allocation will also decline, due to the crowding-out effect of informed investors being able to buy up a larger proportion of the offer. Let \( T(b, p) \) denote total uninformed investment. Suppose that \( b \) satisfies equation (3.3), and keep \( T(b, p) \) fixed while decreasing the offer price. The denominator, which determines \( b \), will not change while the numerator declines. Hence, probability of filling an individual order when demand is high decreases. The uninformed investor may be enticed by lower prices, but will also feel increasingly concerned about not being able to secure desirable shares.

However, we know that there must be more to the demand function of uninformed investors, otherwise they would drop out of the IPO market. It must be shown that uninformed investors increase their investment as the price is reduced.

‘Bias rationing’ is key to understanding the investors bid decisions. Take the initial market price to be set at the mean value of the shares, \( \bar{v} \), with the informed investors not numerous enough to buy up all the shares, even if they wanted to do so. Moreover, uninformed investors will be reluctant to submit bids, as they stand to earn the risk-free rate on a small, but risky, asset. As the IPO price is reduced, more uninformed investors will start to submit bids. Supply and demand will match up in this scenario and there will be no rationing. When the IPO is exactly fully subscribed, consisting of uninformed and informed investors, demand will equal the dollar value of the offering.\(^{26}\)

Further price reductions will increase uninformed investor demand, resulting in competition between informed and uninformed investors, in the good state of the world. Consequently, in this situation, rationing must be present.

Similarly, price reductions will also entice uninformed investors into the IPO market, in a bad state of the world – where informed investors are not looking to invest. There will be a point where a sufficient price reduction will enable the underwriter to sell the entire offer to uninformed investors. The ‘full subscription price’ will ensure the sale of all shares – irrespectively of the state of the world.

\(^{26}\)Informed investors know it is profitable to buy in this state of the world.
When prices drop below the full subscription price, uninformed demand will cause rationing in both states. However, importantly, rationing in the good state relative to the bad state, declines as uninformed investors begin to dominate the market in both states, the rationing changes will converge. It is now clear that receiving an allocation as an uninformed investor does not indicate that informed investors have withdrawn from the bidding.

Since uninformed investors only care about the rationing bias, the closer the chances are of being allocated shares in the good and bad states of the world, the stronger the uninformed demand will be. This fact creates a self-fulfilling prophecy; as larger demand decreases the bias, which again will increase demand etc, resulting in a demand explosion when the price falls below the full subscription price.

Rock (1986) argues that the full subscription price will always exist and he defines it to be

\[ p_f Z = N_u T(b(p_f, N_u), p_f) \]

This equation can be substituted into the quantity \( b(p, N) \) in (3.3), giving us:

\[ b(p_f, N_u) = p_f Z / (p_f Z + I) \]

The allocation probability, \( b(p, N_u) \), in larger markets, is close to the ‘zero demand probability’, \( b_0(p) \). Hence, the full subscription price must be somewhat similar to the solution of the equation

\[ b_0(p) = pZ / (pZ + I) \]

which, according to Rock (1986:198), ‘can always be shown to exist.’

**Beatty & Ritter (1986): Adverse Selection Model** Rock (1986) produced a paper that has shaped research into the IPO underpricing until the present day. This work is still relevant in forming a foundation for further adverse selection models. Beatty & Ritter’s (1986) paper differs in two significant ways from Rock’s contribution. Firstly, it extends the Rock (1986) model by linking *ex ante* uncertainty to the level of underpricing, as seen in their Proposition 1:

‘The greater is the *ex ante* uncertainty about the value of an issue, the greater is the expected underpricing.’ (Beatty & Ritter, 1986:216)

Secondly, it integrates another variable into the model, in this case the role of the underwriting investment bank in ensuring that the underpricing ‘discount’ is enforced.

They (citing Rock’s original 1982 thesis, chapter II) note that the equilibrium converges into two states, namely, with (i) zero expected profits for informed
investors and (ii) zero expected profits for uninformed investors. By assigning the pricing decision to the underwriter, Beatty & Ritter undoubtedly brings the model more in line with reality. As we discussed in Section 3.7.1, under bookbuilding, the underwriter is managing the process of determining the IPO demand and (officially) pricing the issue accordingly.

The underlying equations behind cases (i) and (ii) suggest, between them, that all underpricing profits will go to informed investors, due to the winner’s curse problem. In reality this is not the case, as uninformed investors are rewarded, to a certain extend, for free riding. To become informed, aggregate costs will equal the amount of money left on the table by issuers:

\[ M \times c = \int_0^\infty Z(\bar{v} - p)f(\bar{v})d\bar{v} = Z[E(\bar{v}) - p] \]

Here, \( M \) is the number of informed investors, \( c \) is the cost per investor to become informed, \( n \) is the number of shares, \( p \) is the offer price and \( E(\bar{v}) \) is the expected realised share price.

Hence, the investor who chooses to become informed determines the required degree of underpricing, \( E(\bar{v}) - p \). It could be said that the investment in information is similar to buying a call option, profiting if \( \bar{v} > p \). The greater the dispersion of \( \bar{v} \) in the IPO, with everything else being equal, the greater the potential profit. In other words, the greater the ex ante uncertainty, the greater the underpricing. Since the cost, \( c \), of becoming informed is fixed, the more ex ante uncertainty the greater incentive investors have to choose to become informed about the IPO. Hence, there exits a positive correlation between ex ante uncertainty and IPO underpricing.

The individual company issuing an IPO could be tempted to free-ride and not set the underpricing at a level where uninformed investors would be induced to stay in the market. Beatty and Ritter note that underwriters, as repeat players, have an incentive to ensure that companies consistently underprice sufficiently. A natural equilibrium exists in this relationship. If an underwriter doesn’t underprice enough, they will lose potential investors. However, if they underprice too extensively they will stand to lose future issue business. In short, if they get the level of underpricing wrong, their reputation will suffer.

Chowdhry & Nanda (1996): Price Stabilisation. Chowdhry & Nanda (1996) acknowledge the Rock (1986) framework, but they see uninformed investors being compensated in the after-market, through price stabilisation activities as the dominant strategy. Underpricing is a blunt and expensive instrument, as informed investors also profit. By using ex post compensation, it is predominantly uninformed investors who reap the benefits. Beatty & Ritter (1986) likened an investor’s decision to

---

27 Rock’s original 1982 thesis is not publicly available.
28 They argue that Rock’s model does not incorporate the bookbuilding process; rather Rock’s model is seen as capturing the ‘fixed price method’.

72
become informed to buying a call option.\textsuperscript{29} Whereas Chowdhry & Nanda see price stabilisation as a put option, compensating mainly uninformed investors.\textsuperscript{30}

In order to keep them in the market, it is essential for uninformed investors to know they will not lose in bidding for IPOs. In line with this reasoning, Chowdhry & Nanda have developed an illustrative ‘incentive compatibility condition’ for inducing uninformed investors to bid:

\[
\int_{p}^{\infty} a(\tilde{\nu} - P)f(\tilde{\nu})d\tilde{\nu} - \left[(1 - \alpha_s) \int_{p-(S/\alpha_s)K}^{\infty} a(\tilde{\nu})(p - \tilde{\nu})f(\tilde{\nu})d\tilde{\nu} + \int_{0}^{p-(S/\alpha_s)K} a(\tilde{\nu})(P - \tilde{\nu} - (S/Z))f(\tilde{\nu})d\tilde{\nu}\right] = 0
\] (3.5)

In this formula, \(\tilde{\nu}\) is the true value of the share; \(p\) is the offer price; \(f(\tilde{\nu})\) is the density function; \(\alpha_s\) is the fraction of shares that underwriters buys back to support the share price; \(Z\) is the number of shares for sale and \(S\) is the total amount of funds available to stabilise the share price.

Price stabilisation (represented by \(\alpha\)) holds a key position in (3.5). However, in the first term of the equation (3.5) there is no need for price support, as this signifies expected profits in an underpriced issue.

The overall next term, between the square brackets, signifies the expected total loss to investors if the issue is overpriced, after investors have received the benefits associated with price stabilisation activity. The first term in the square brackets stands for the expected loss when the after-market price can be raised to the offer price again, through price support. This scenario relies on the after-market price not being too low, that is, \(\tilde{\nu} > (p - (S/\alpha_s)Z)\). Here a fraction \(\alpha\) of the shares are bought up in the market and investors are left with amount \(1 - \alpha\) of shares. The second term in the square brackets stands for the expected loss in a situation with greater overpricing. Indeed, in this case underwriters are unable to bring up the after-market price to the offer price again, i.e., if \(\tilde{\nu} < (p - (S/\alpha_s)Z)\). They will spend \(S\) amount in the effort, resulting in \(S/Z\) price support per share.

One of the most interesting features is that by setting \(\alpha_s\) to zero (that is, eliminating price stabilisation), we essentially have Rock’s (1986) framework again. However, Chowdhry and Nanda note that this scenario is not revenue maximising for the issuing company.\textsuperscript{31} Indeed, they state in Proposition 1:

‘The revenue raised by the firm R is increasing in the fraction of shares \(\alpha\) the underwriting syndicate promises to buy back at the issue price \(p\).’ (Chowdhry & Nanda, 1996:30)

The simple intuition behind Proposition 1 is that by reducing ex ante adverse selection costs by price stabilisation, less underpricing is required to entice

\textsuperscript{29}Call option: right to buy shares if \(\tilde{\nu} > P\).

\textsuperscript{30}A put option, or price floor, is more valuable to uninformed participants, as informed individuals are expected to bid only when the shares are underpriced.

\textsuperscript{31}See Chowdhry & Nanda (1996) for a comprehensive proof.
investors. Hence greater revenue for the issuing company, with reduced expected profits for informed investors.

3.9 Conclusion

The US IPO market has experienced significant fluctuations in IPO underpricing levels since 1980. However, rarely has it experienced average underpricing in excess of 20 percent, which, as we will discover and discuss in the next chapter, places the US among the more modestly underpriced countries. It may in fact be that the US, with its deep, mature and robust markets, provides us with an international benchmark, against which we can judge whether other countries are experiencing abnormal IPO pricing. However, one notable exception to this observation was the 1999-2000 US stock market tech bubble. On reflection, the tech IPO bubble may have been the perfect storm: Investment banks becoming increasingly careless in their rent seeking; overenthusiastic investors looking for a short-term profit and managers in issuing companies being blinded by the sudden rise in their wealth (through retained shares).

By examining some of the factors that may partly drive underpricing in this chapter, it becomes apparent that the pricing of IPOs is a complex process where underwriters, issuers and investors all have their own agenda. Moreover, the bookbuilding process, widely and successfully used across the world (including Russia, India and China), is open to abuse by market agents if it is not correctly regulated and monitored. It is a multifaceted process that is certainly based on good corporate governance standards to ensure transparency and accountability. In the Western European and the North America financial markets, we may assume that transparency and accountability is a basic requirement for investing in the markets (although there are notable exceptions, for instance Enron). However, as we will discuss in Part III, this is not the case in Russia, India and China. Other variables may, in a sense, substitute for transparency. For example, as the markets are in essence non-transparent and most investors are not familiar with financial products in these countries, the role of intermediate agents (e.g., independent financial advisors, brokers and even other family members) is magnified. Investors seem to follow their advise somewhat blindly. There is also a sense among local investors in these markets that investing is a game, a lottery. You place your bet and hope for the best. Which takes us to the theoretical asymmetric information models (Rock (1986), Beatty & Ritter (1986) and Chowdhry & Nanda (1996)) that we covered in this chapter. They highlight in a stylised setting the vital role information flows play in ensuring efficient markets and they account for some of the consideration made by market participants. Financial markets and empirical models are by their very nature noisy. The theoretical models covered in this chapter give us a better idea of what ideal market dynamics may look like, and make it easier to identify behaviour that goes against this ideal setting when we discuss IPO dynamics in the quantitative analysis (Chapters 4 and 5) and the qualitative analysis (Chapters 6, 7 and 8).
Chapter 4

Exploratory Data Analysis

4.1 Introduction

Chapter 4 marks the beginning of the quantitative analysis that will be complemented by the qualitative analysis carried out in Part III of this thesis, in accordance with the multi-method approach where quantitative and qualitative tools are used to achieve synergy. Following the IPO underpricing discussion in Chapter 3, this chapter carries out an exploratory data analysis (prominent contributions by Hoaglin, Mosteller & Tukey (1983), Martinez, Martinez & Solka (2010) and Tukey (1977)) on IPO underpricing data and relates IPO performance to a number of variables and factors, most notably Dreher’s (2006) KOF Index of Globalization. In effect, it serves to develop a vehicle, of a ‘barometric’ type, which suggests further investigation ‘on the ground’ in Russia, India, China and the UK in Part III of the thesis.

4.2 Data Sources and Summary Statistics

The US, and to some extent the UK, have traditionally been the main areas of interest when trying to establish why IPO underpricing occurs. There are two key reasons why some slight underpricing may be justified: asymmetric information and risk bearing. When potential investors are looking to buy an IPO, they are considering a new, untested product in the markets. They are taking a liquidity risk; the company managers will often not be known to equity analysts and the company’s financial records may not be substantial. Investors will need to become informed about the company, which will require research expenses that should be covered by the IPO to make it attractive.

---

1 See e.g. Bryman (2004) and Teddlie & Tashakkori (2009) on the theory behind the multi-method approach. Moreover, Buchanan, Chai & Deakin (2012), Chapter 2 and Janssen, Bousquet, Ostrom (2011) are recent examples of the approach used in the field.

for informed investors to enter the market. Later, as the literature became
more internationally orientated, it became clear that underpricing is a global
phenomenon.\footnote{Engelen & van Essen (2010) provide a current international perspective on IPO under-
pricing.} However, as we will discover in the following section (4.2.1),
while all major markets are united in displaying average IPO underpricing, the
severity of underpricing varies considerably between countries.

4.2.1 Initial Public Offering (IPO) Data

The Loughran, Ritter & Rydqvist (2008) data, which is the key foundation
for the quantitative analysis, and by extension, the fieldwork, is graphically
illustrated by the barchart in Figure 4.1. The figure provides a striking image
of the extent of variation in international underpricing. The figure is comprised
of a sequenced listing of countries, with the country with the lowest average
underpricing found at the beginning of the figure, followed by ever-increasing
levels of underpricing. The data illustrated in Figure 4.1 (and subsequently
listed in Table 4.1) is equally weighted, that is, a similar weight is allocated
to each company and each year when calculating the average returns listed
in Figure 4.1 (and Table 4.1). It should be noted that the Loughran, Ritter
& Rydqvist country data vary is sample sizes and sampling periods. We will
discuss this further below Table 4.1.
Figure 4.1: Equally Weighted Cross-country Variations in Underpricing

Although there are significant differences in the sample sizes and the periods covered, Figure 4.1 makes for interesting reading. At one end of the scale (see short red bar), with the lowest level of underpricing, we see countries such as Russia (4.2 percent), Argentina (4.4 percent) and Austria (6.5). At the other end of the scale (see the long red bars), we have Malaysia (69.6 percent), India (92.7 percent) and China (164.5 percent) with the most pronounced levels of underpricing. Not surprisingly, each end of the bar chart requires a different explanation. The underpricing levels seen in, for example, India and China, arguably reflect different inefficiencies in resource allocation than those in Russia. As we will explore in Chapter 6 (Part III), The Russia Bear, Russia saw little IPO activity during the 1999 to 2006 issue window. The Russian financial markets are still shallow and somewhat illiquid. Strong Russian companies tend to seek listings abroad, to protect their ownership structure from government intervention and to access more liquid markets. In contrast, as we will discover in Chapters 7 and 8, The India Tiger and The Chinese Dragon respectively, these markets are considerably more dynamic. All three countries (Russia, India and China) are faced with corporate governance challenges. However, India and China have been able to accommodate relatively many large listings on their domestic markets, a fact that is also reflected in the sample sizes in Table 4.1: Russia (40), compared to India (2,811) and China (1,394). Furthermore, underpricing may not necessarily reflect an inefficient market either, as some mild degree of underpricing may indeed be efficient. IPO shares are by their very nature unknown entities; the management of the company may not be known to investors and may not have been previously followed by analysts. There is an inherent liquidity risk associated with new issues. Moreover, as we will discover and discuss in Part III of the thesis, in a market such as the Russian one, with poor company transparency and little minority share holder protection, the risk of investing in a new issue is magnified. Loughran & Ritter (2004:8) argue that if asymmetric information is attenuated, or even resolved, underpricing may still exist but they would expect that it would ‘be no more than several percent’. Indeed, a possible international benchmark for ‘efficient’ underpricing may possibly be found through the US (where it stands at 16.9 percent) and the UK (where it stands at 16.8 percent), clustered together in the middle of the barchart (see the medium length green bars in Figure 4.1).

Figure 4.1 is visually effective in illustrating cross-country differences in IPO underpricing. However, it does not tell the full story. Table 4.1. (below) provides the reader with the sample sizes and the sampling time periods for each country.\footnote{Underpricing is calculated as $\text{Undpri} = \left(\frac{\text{Issue price}}{\text{Closing price of first day of trading}}\right) \times 100$ Each IPO is equally weighted in the data set.} Moreover, Table 4.1 lists the specific country IPO underpricing (or ‘average initial returns’) figures.
Table 4.1: Equally Weighted Cross-country Variations in Underpricing

<table>
<thead>
<tr>
<th>Country</th>
<th>Sample Size</th>
<th>Time Period</th>
<th>Avg Initial Returns</th>
<th>Country</th>
<th>Sample Size</th>
<th>Time Period</th>
<th>Avg Initial Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td>40</td>
<td>1999-2006</td>
<td>4.2%</td>
<td>Indonesia</td>
<td>321</td>
<td>1989-2007</td>
<td>21.1%</td>
</tr>
<tr>
<td>Austria</td>
<td>96</td>
<td>1971-2006</td>
<td>6.5%</td>
<td>Iran</td>
<td>279</td>
<td>1991-2004</td>
<td>22.4%</td>
</tr>
<tr>
<td>Canada</td>
<td>635</td>
<td>1971-2006</td>
<td>7.1%</td>
<td>Poland</td>
<td>224</td>
<td>1991-2006</td>
<td>22.9%</td>
</tr>
<tr>
<td>Denmark</td>
<td>145</td>
<td>1984-2006</td>
<td>8.1%</td>
<td>Cyprus</td>
<td>51</td>
<td>1999-2002</td>
<td>23.7%</td>
</tr>
<tr>
<td>Chile</td>
<td>65</td>
<td>1982-2006</td>
<td>8.4%</td>
<td>Ireland</td>
<td>31</td>
<td>1999-2006</td>
<td>23.7%</td>
</tr>
<tr>
<td>Norway</td>
<td>153</td>
<td>1984-2006</td>
<td>9.6%</td>
<td>Greece</td>
<td>363</td>
<td>1976-2005</td>
<td>25.1%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>181</td>
<td>1982-2006</td>
<td>10.2%</td>
<td>Germany</td>
<td>652</td>
<td>1978-2006</td>
<td>26.9%</td>
</tr>
<tr>
<td>France</td>
<td>686</td>
<td>1983-2006</td>
<td>10.7%</td>
<td>Sweden</td>
<td>406</td>
<td>1980-2006</td>
<td>27.3%</td>
</tr>
<tr>
<td>Turkey</td>
<td>252</td>
<td>1990-2004</td>
<td>10.8%</td>
<td>Singapore</td>
<td>441</td>
<td>1973-2006</td>
<td>28.3%</td>
</tr>
<tr>
<td>Spain</td>
<td>128</td>
<td>1986-2006</td>
<td>10.9%</td>
<td>Switzerland</td>
<td>147</td>
<td>1983-2006</td>
<td>29.3%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>114</td>
<td>1989-2006</td>
<td>12.7%</td>
<td>Bulgaria</td>
<td>9</td>
<td>2004-2007</td>
<td>36.5%</td>
</tr>
<tr>
<td>Belgium</td>
<td>114</td>
<td>1984-2006</td>
<td>13.5%</td>
<td>Thailand</td>
<td>459</td>
<td>1987-2007</td>
<td>36.6%</td>
</tr>
<tr>
<td>Israel</td>
<td>348</td>
<td>1990-2006</td>
<td>13.8%</td>
<td>Taiwan</td>
<td>1312</td>
<td>1980-2006</td>
<td>37.2%</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>1,008</td>
<td>1980-2006</td>
<td>15.9%</td>
<td>Japan</td>
<td>2,579</td>
<td>1970-2007</td>
<td>40.5%</td>
</tr>
<tr>
<td>Mexico</td>
<td>88</td>
<td>1987-1994</td>
<td>15.9%</td>
<td>Brazil</td>
<td>180</td>
<td>1979-2006</td>
<td>48.7%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>3,986</td>
<td>1959-2006</td>
<td>16.8%</td>
<td>Sri Lanka</td>
<td>115</td>
<td>1987-2007</td>
<td>48.9%</td>
</tr>
<tr>
<td>United States</td>
<td>12,007</td>
<td>1960-2007</td>
<td>16.9%</td>
<td>Korea</td>
<td>1417</td>
<td>1980-2007</td>
<td>57.4%</td>
</tr>
<tr>
<td>Finland</td>
<td>162</td>
<td>1971-2006</td>
<td>17.2%</td>
<td>Malaysia</td>
<td>350</td>
<td>1980-2006</td>
<td>69.6%</td>
</tr>
<tr>
<td>Italy</td>
<td>233</td>
<td>1985-2006</td>
<td>18.2%</td>
<td>India</td>
<td>2,811</td>
<td>1990-2007</td>
<td>92.7%</td>
</tr>
<tr>
<td>Australia</td>
<td>1,103</td>
<td>1979-2006</td>
<td>19.8%</td>
<td>China</td>
<td>1,394</td>
<td>1990-2005</td>
<td>164.5%</td>
</tr>
<tr>
<td>New Zealand</td>
<td>214</td>
<td>1979-2006</td>
<td>20.3%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Longharn, Ritter & Rydqvist (2008)

It is clear from Table 4.1 that sample sizes and sampling time periods vary significantly between countries, partly reflecting their individual activity levels.
For example, the Russian sample size of 40 (1999-2006), is modest in comparison to, for example, the Chinese sample of 1,394 (1990-2005) listed companies. On a similar note, the US, the UK and Japan have large sample sizes and long sampling periods. The amount of publicly available data for these three markets is testament to their prominent positions within the financial world.

Looking at Table 4.1 in more detail, there are some interesting potential anomalies to be observed. Firstly, and key to this thesis, Russia, India and China stand out clearly as a cardinal group of interest. Russia (4.2 percent for 1999-2006), India (92.7 percent for 1990-2007) and China (164.5 percent for 1990-2005) are all fast growing, developing countries with strong socialist backgrounds but very different IPO performances. Russia has the lowest measured IPO underpricing of all the countries in the table, in contrast to India and China, which both display overwhelming underpricing. As far as we are aware, there has not been any academic study into why Russia, India and China differ considerably in their primary markets, and by extension, how their corporate governance profiles are evolving. It is the objective of this thesis to shed light on the market dynamics and corporate governance issues that govern these three markets, and to benchmark them against the mature UK markets. The analysis carried out in this chapter, and continued in Chapter 5, is instrumental in enabling the qualitative fieldwork which follows in Part III of this thesis.

Another interesting consideration, outside the scope of this thesis, would be to add Brazil to the grouping of Russia, India and China, and thus consider the BRIC group. We note that Brazil, with average initial returns of 48.7 percent, is only three countries removed from India in Table 4.1.

Austria (6.5 percent for 1971-2006) and Switzerland (29.3 percent for 1983-2006) also stand out in Table 4.1. They both share a land border and are in many ways integrated, both in terms of trade and financial services. Yet, with 6.5 percent and 29.3 percent underpricing respectively, they differ significantly in primary market pricing.

Norway (9.6 percent for 1984-2006) and Sweden (27.3 percent for 1980-2006) also clearly differ, despite the fact that they are similar in many aspects. This variation may be due to differences in the two countries’ tax systems. Up until 1990, the profits made by individuals from underpriced IPOs were not subject to capital gains tax in Sweden. As a result, companies would reward employees with underpriced IPOs, as a tax-free benefit. Rydqvist (1997) note that in 1990, the Swedish tax authorities made underpricing-related gains subject to income tax, thereby removing the incentive to allocate underpriced stock to employees. Underpricing subsequently fell from an average of 41 percent in 1980-1989 to 8 percent in 1990-1994, according to Rydqvist. The previous practise of exempting IPO capital gains from income tax in Sweden would seem to be a unique (or at least uncommon) tax arrangement that is not widely reported, that is, it may not be a factor in other counties experiencing significant underpricing.

Table 4.1 also encapsulates the complexity of comparing countries. Take,  

---

Footnote: The acronym ‘BRIC’, which represents Brazil, Russia, India and China, was coined by Jim O’Neill of Goldman Sachs in a seminal 2001 report titled ‘Building Better Global Economic BRICs’.
for example, the US and Canada. One might be struck by the difference in initial returns between these two countries, with the US at an average 16.9 percent (1960 - 2007) and Canada at 7.1 percent (1971 - 2006). Intuitively, one might expect Canada to be subject to higher underpricing than the US, all things being equal. The US is a much deeper and more liquid market than its Canadian counterpart. However, as discussed in Chapter 3 with the added insight of Professor Suret, Laval University, Canada, there are a number of reasons that may explain the pricing variations between the US and Canada.

4.2.2 Globalisation Data

The KOF Index of Globalization 2004, found in the updated tables of 2010 and made publicly available by Dreher (2006), is another important variable in this thesis. It should be noted that the scores represent the overall globalisation score for each country. The overall globalisation score is a composite of economic (37 percent weight), social (39 percent weight) and political (25 percent weight) globalisation.6 Please refer to Tables 1.1 (Economic), 1.2 (Social) and 1.3 (Political) in Chapter 1, for a breakdown of the specific sub-variables and their respective weight allocations.7 Table 4.2 contains the globalisation scores for the same countries listed in Table 4.1. Moreover, as we will be comparing globalisation and IPO underpricing in more detail in Sections 4.3 and 4.4, the IPO underpricing figures from Table 4.1 have been reproduce in Table 4.2 to facilitate a brief overview of these two data sets.

---

6The reader may note that the sum of the weights for economic, social and political globalisation comes to 101 in total. In private correspondence with Professor Dreher (June 25, 2012), he noted that it is due to the figures being rounded.

7These variables, with slight adjustments, serve as the foundation for the semi-structured fieldwork interview agenda on globalisation. The three other key areas in the field work are corporate governance, institutional structure and competitive strategy.
Table 4.2: Cross-country Variations in the 2004 Globalisation Index and Underpricing

<table>
<thead>
<tr>
<th>Country</th>
<th>Glo Index</th>
<th>Avg Initial</th>
<th>Country</th>
<th>Glo Index</th>
<th>Avg Initial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td>67.7609</td>
<td>4.2%</td>
<td>Indonesia</td>
<td>55.4415</td>
<td>21.1%</td>
</tr>
<tr>
<td>Argentina</td>
<td>62.784</td>
<td>4.4%</td>
<td>Philippines</td>
<td>59.2485</td>
<td>21.2%</td>
</tr>
<tr>
<td>Austria</td>
<td>91.519</td>
<td>6.5%</td>
<td>Iran</td>
<td>36.1661</td>
<td>22.4%</td>
</tr>
<tr>
<td>Canada</td>
<td>88.2234</td>
<td>7.1%</td>
<td>Poland</td>
<td>80.1585</td>
<td>22.9%</td>
</tr>
<tr>
<td>Denmark</td>
<td>85.1532</td>
<td>8.1%</td>
<td>Cyprus</td>
<td>77.1051</td>
<td>23.7%</td>
</tr>
<tr>
<td>Chile</td>
<td>72.2729</td>
<td>8.4%</td>
<td>Ireland</td>
<td>85.8295</td>
<td>23.7%</td>
</tr>
<tr>
<td>Norway</td>
<td>83.0363</td>
<td>9.6%</td>
<td>Greece</td>
<td>79.9707</td>
<td>25.1%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>90.6375</td>
<td>10.2%</td>
<td>Germany</td>
<td>80.5798</td>
<td>26.9%</td>
</tr>
<tr>
<td>France</td>
<td>84.8179</td>
<td>10.7%</td>
<td>Sweden</td>
<td>89.8007</td>
<td>27.3%</td>
</tr>
<tr>
<td>Turkey</td>
<td>64.1083</td>
<td>10.8%</td>
<td>Singapore</td>
<td>88.1856</td>
<td>28.3%</td>
</tr>
<tr>
<td>Spain</td>
<td>85.2434</td>
<td>10.9%</td>
<td>Switzerland</td>
<td>90.0058</td>
<td>29.3%</td>
</tr>
<tr>
<td>Portugal</td>
<td>86.6914</td>
<td>11.6%</td>
<td>South Africa</td>
<td>62.4266</td>
<td>32.7%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>49.7332</td>
<td>12.7%</td>
<td>Bulgaria</td>
<td>70.8657</td>
<td>36.5%</td>
</tr>
<tr>
<td>Belgium</td>
<td>92.7453</td>
<td>13.5%</td>
<td>Thailand</td>
<td>61.782</td>
<td>36.6%</td>
</tr>
<tr>
<td>Isreal</td>
<td>75.0512</td>
<td>13.8%</td>
<td>Taiwan</td>
<td>60.8889</td>
<td>37.2%</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>88.1856</td>
<td>15.9%</td>
<td>Japan</td>
<td>62.3963</td>
<td>40.5%</td>
</tr>
<tr>
<td>Mexico</td>
<td>59.6226</td>
<td>15.9%</td>
<td>Brazil</td>
<td>60.3482</td>
<td>48.7%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>80.2023</td>
<td>16.8%</td>
<td>Sri Lanka</td>
<td>49.618</td>
<td>48.9%</td>
</tr>
<tr>
<td>United States</td>
<td>77.6931</td>
<td>16.9%</td>
<td>Korea</td>
<td>63.7532</td>
<td>57.4%</td>
</tr>
<tr>
<td>Finland</td>
<td>86.3704</td>
<td>17.2%</td>
<td>Malaysia</td>
<td>77.9456</td>
<td>69.6%</td>
</tr>
<tr>
<td>Italy</td>
<td>80.3793</td>
<td>18.2%</td>
<td>India</td>
<td>46.9542</td>
<td>92.7%</td>
</tr>
<tr>
<td>Australia</td>
<td>82.929</td>
<td>19.8%</td>
<td>China</td>
<td>60.8889</td>
<td>164.5%</td>
</tr>
<tr>
<td>New Zealand</td>
<td>78.4947</td>
<td>20.3%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


As is evident from Table 4.2, countries vary significantly in their degree of globalisation. Examining Table 4.2 further, we find four countries with a total globalisation score of less than 50. Iran is, by far, the lowest entry with 36.17. As we know, United Nations’ (UN) sanctions against Iran took effect in 2006, due to Iran’s insistence on developing their nuclear programme. However, Katzman
(2009) notes that the US implemented sanctions against the country as early as 1995 (the Iran Sanction Act (ISA)), in an effort to isolate the country and slow down its nuclear programme. As a result, it is probably not surprising that Iran is the least globalised country in this sample. India is the second lowest entry. However, with a 46.95 score, it is around 10 points higher than Iran. It will become clear from the reported fieldwork in Chapter 7, The Indian Tiger, that the country has been quite reluctant in opening up its markets to foreign participants and has instead embraced a gradualist approach to liberalisation. Furthermore, until 1991 the country was in essence an autarky. Sri Lanka is next on the globalisation list, with a score of 49.61. Fearon & Lainin (2010) note that the Sri Lankan Civil War (1983 to 2009) has been one of the longest and most ferocious civil conflicts over the past 30 years. Although there was a ceasefire, brokered by Norway, between 2002 and 2006, our data may reflect the difficult period that Sri Lanka underwent. Nigeria, with a score of 49.73, follows closely after Sri Lanka. However, due to Nigeria’s oil wealth, it may be expected that the country will accelerate its integration into the wider global community in the coming years.

At the other end of the globalisation scale in the sample reported in Table 4.2, we find four (small and homogeneous) countries above the 90 mark. They are Belgium (92.74), Austria (91.52), The Netherlands (90.64) and Switzerland (90.01). Interestingly, the UK (80.20) and the US (77.69) are not ranked at the top of Table 4.2 in terms of globalisation. During the fieldwork carried out in London, several interviewees (e.g., C_U, a Chief European Economist, and H_U, a Managing Director in banking), commented that the international atmosphere found in London is not indicative of the country as a whole. The same might be said for New York, the US financial centre. Two more countries are of particular interest to this thesis, China (60.89) and Russia (67.76), as together with India and the UK (London), they constitute the fieldwork destinations. Chapter 8, The Chinese Dragon, documents and analyses China’s attempt to build a uniquely Chinese market form (a socialist market economy with Chinese characteristics, as it is known). While, as discussed in Chapter 6, The Russian Bear, Russia has a complex relationship with its neighbours and the West. Trenin (2006:87) suggests that Kremlin’s foreign policy under President Putin, is based on the assumption that ‘Russia is essentially friendless.’

---

8Escribà-Folch & Wright (2010) find that economic sanctions may work against individualist-driven regimes, however they are ineffective against single-party and military regimes. Pape (1997), amongst others, suggests that economic sanctions are in general ineffective. See Askari (2002) for an analysis on the effect of economic sanctions on business interests, from a US/Iran perspective.

9See e.g. Nayar (2001) on the liberalisation process that started in the early 1990s and moved India away from an autarky model.

10See, for example, Iwayemi & Fowowe (2011) on the macroeconomic impact of oil price shocks in Nigeria.

11See, for example, Coase & Wang (2012) on the Chinese liberalisation process which began in the mid to late 1970s.
4.2.3 Summary Statistics

Finally, in concluding the discussion on data sources, a summary of statistics is a useful tool to gain a brief overview of the two key data sets.

Table 4.3: Summary Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undpri</td>
<td>45</td>
<td>.2712667</td>
<td>.2738393</td>
<td>.042</td>
<td>1.645</td>
</tr>
<tr>
<td>GloIndex</td>
<td>45</td>
<td>73.64476</td>
<td>14.08003</td>
<td>36.1661</td>
<td>92.74529</td>
</tr>
</tbody>
</table>

In Table 4.3 we note that the IPO underpricing (Undpri), Undpri = (Issue price / Closing price of first day of trading) × 100, sample mean is approximately 27.4 percent. This is around ten percentage points above the UK (16.8 percent) and the US (16.9 percent). The 4.2 percent recorded as the minimum is representative of Russia, while the maximum of 164.5 percent is China. With a globalisation index (GloIndex) mean of 73.64, the UK (80.20) and the US (77.69) are among the most globalised countries in the sample. The minimum value of 36.17 is Iran and the maximum is Belgium.

4.3 Scatter Plots

Scatter plots are a useful way to suggest correlation between two variables and to identify outliers. Right now, matters of potential causality will not be discussed, but rather deferred to Section 4.4 on a simple regression model. For the moment we will focus on what the data itself can tell us. One aspect of this will be whether any specific data points ‘belong’ to the population under consideration. In this section we plot IPO underpricing (Undpri) against the 2004 KOF Index of Globalization using the data in Table 4.2. Scatter plots often play a central role in exploratory data analysis (EDA). Early, seminal contributions to the literature are Cleveland & McGill (1988) and Stuetzle (1987). These are followed by Anselin, Syabri & Kho (2006) and Martinez, Martinez and Solka (2010), for example.
In Figure 4.2, the raw data points would suggest that the two variables, IPO Underpricing (Undpri) and Globalisation Index (GloIndex), are negatively correlated. Indeed, a straight line (in logs), which is superimposed on the data, might be regarded as adequate for summarising the data, if not for statistical inference. The downward-sloping, fitted line indicates more precisely the negative relation between the two variables: as the GloIndex increases in value, the Undpri variable decreases. An important feature of Figure 4.2 is that it indicates that Iran (at the bottom of the diagram) should be treated as an outlier (see section 4.2.2 on Iran). Globalisation is used in this thesis as a proxy for country openness, transparency, accountability and compliance with international standards. As such, it should not be surprising that underpricing and globalisation are negatively correlated. And yet, to our knowledge, no other publications have explored the connection between the KOF Index of Globalization and IPO underpricing.
To reinforce the observations made from Figure 4.2, an inferential element can be added, as in Figure 4.3. It is similar in design to Figure 4.2, but with the addition of a 95 percent confidence interval (CI) to the fitted line. The 95 percent confidence band is a graphical representation of the observations which, with 95 percent probability, fall within this distance from the fitted line. Figure 4.3 provides an inferential basis for confirming the fact that Iran is a significant outlier. Therefore, Iran is dropped from the further statistical analysis carried out in section 4.4. As discussed in section 4.2.2, Iran has found itself increasingly isolated on the world stage, due to its continuing development of its nuclear programme. Mehrabanpoor, Bahador & Jandaghi (2011), quoting the Economist (2007), find that despite the Tehran Stock Exchange reporting considerable returns in recent of years, there is little foreign participation in the Iranian stock market due to transparency issues and liquidity concerns. This would suggest that the country is not only isolated politically and economically, but that its financial markets are also missing out on foreign engagement.

### 4.4 Simple Regression Model

In Section 4.3 we established that there is probably a correlation between the Undpri and GloIndex variables. However, we did not consider causality or the
strenght of this correlation. To progress with the analysis, we now change focus from description to inference. We argue that causality is from globalisation to underpricing. Therefore, we move Undpri to the y-axis and GloIndex to the x-axis as, in Figure 4.4.

**Figure 4.4: Globalisation Index and IPO Underpricing data in Levels, with Fitted Log Linear Line**

![Figure 4.4: Globalisation Index and IPO Underpricing data in Levels, with Fitted Log Linear Line](image_url)

In Figure 4.4 we note that a convex curve is now superimposed on the data, with variables expressed in levels. The specific functional form used is:

\[
Undpri = b_1 \exp(b_2 \cdot GloIndex) + a
\]  

(4.1)

Equation 4.1 was estimated in Stata, giving a positive value for \( b_1 \) and a negative value for \( b_2 \). Thus, the slope of the fitted line is negative, and the second derivative is positive, implying convexity:

\[
Undpri = 2.335368 \exp(-.0291156 \cdot GloIndex) + (-.0148254)
\]

The fitted line again suggests that IPO underpricing drops as a country becomes more globalised, and now also that the causality is from globalisation to underpricing. Figure 4.4 suggests that, in general, we should expect to find pronounced underpricing in countries with a low globalisation score and, as we move up the globalisation ranking, IPO underpricing should drop, but at a decreasing rate.
Whilst many functional forms can be used as alternatives to (4.1), simplicity is an important consideration, on the basis of Occam’s Razor. Therefore, to start the continued inferential work in Chapter 5 on the simplest possible basis, we begin by running a bivariable linear regression on the 45 country sample. IPO underpricing (Undpri) is the dependent variable and the globalisation index (GloIndex) is the independent variable, and both variables are untransformed.

The IPO underpricing (Undpri) and globalisation (GloIndex) variables discussed in Sections 4.2 and 4.3 produce this specific equation (4.1), which can be econometrically estimated:

$$Undpri = \beta_0 + \beta_1 GloIndex + \epsilon$$  \hspace{1cm} (4.2)

An estimation of equation (4.1) by least squares, using Stata software and the command <reg>, is provided in Table 4.4A and Table 4.4B, where Iran is dropped in the latter.

**Table 4.4A: Bivariable Linear Regression**

<table>
<thead>
<tr>
<th>Number of obs</th>
<th>F(1, 43)</th>
<th>Prob &gt; F</th>
<th>R²</th>
<th>Adj R²</th>
<th>Root MSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>6.77</td>
<td>0.0127</td>
<td>0.136</td>
<td>0.1159</td>
<td>25748</td>
</tr>
</tbody>
</table>

Undpri    Coef.  Std.Err.  t  P > |t|  Elast\textsuperscript{13}  
GloIndex  -0.0071728   0.0027568  -2.60\textsuperscript{**}  0.013  -1.271248  
cons      0.7995027    0.2060229   3.87  0.000  3.828835

Note: **Significant at 5% level

Table 4.4A reports results estimated by ordinary least squares (OLS) for $N = 45$ observations. Goodness-of-fit, $R^2$, is reasonable for a cross-section at 0.13, coupled with a low p-value. We note that the explanatory variable is statistically significant at the 5 percent level. Moreover, an elasticity of -1.2712 was calibrated for the globalisation index (GloIndex), which would suggest a 10 percent increase in a country’s globalisation index should reduce the country’s average IPO underpricing by 12.7 percent. However, as exemplified in the scatter plot analysis, Iran is an outlier and may unduly influence the results.

\textsuperscript{12}See for example Domingos (1997) on Occam’s Razor role in facilitating knowledge discovery.

\textsuperscript{13}The elasticities used here, and elsewhere in this chapter where magnitudes of elasticities are mentioned, were obtained as the coefficients of the corresponding variables in a log linear form of Equation (4.1). This is done to obviate the arbitrariness of having to choose a point (e.g., the point of means) at which to calculate the elasticity. Our procedure is adopted for calibration purposes only. Our preferred estimator procedure is applied to the model of (4.1), for which all other results are reported in the rest of Table 5.1.
Table 4.4B: Bivariable Linear Regression, Iran Dropped

<table>
<thead>
<tr>
<th>Number of obs</th>
<th>F(1,42)</th>
<th>Prob &gt; F</th>
<th>R²</th>
<th>Adj R²</th>
<th>Root MSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>44</td>
<td>8.76</td>
<td>0.0051</td>
<td>0.1725</td>
<td>0.1528</td>
<td>.25487</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Undpri Coef.</th>
<th>Std. Err.</th>
<th>t</th>
<th>P &gt;</th>
<th>Elast</th>
</tr>
</thead>
<tbody>
<tr>
<td>GloIndex</td>
<td>-.0088356</td>
<td>.0029859</td>
<td>2.96***</td>
<td>0.005</td>
</tr>
<tr>
<td>cons</td>
<td>.9305623</td>
<td>.2257321</td>
<td>4.12</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Note: ***Significant at 1% level

Table 4.4B repeats the same estimation, but with Iran dropped from the sample. As a result, R² increases from 0.13 to 0.17, while the estimation also increases in statistical significance (now statistically significant at the 1 percent level). Moreover, the calibrated elasticity increases by approximately 3.5 percentage points.

4.5 Kernel Density Estimations

We now move from discussing IPO underpricing in relation to the KOF Index of Globalization to focusing on IPO underpricing and variations between regions. Non-parametric kernel density estimates work well as an exploratory tool; they provide an initial visualisation of the data. Being a non-parametric estimator, the kernel does not impose any fixed functional form on the density and relies on the data points to create an estimate.

The kernel density estimates are related to well-known histograms. However, they provide a number of advantages over a simple histogram. For example, kernel estimators set a kernel function at each data point, hence eliminating the dependence of the end points of the bins. Moreover, using an appropriate kernel function as the underlying assumption will result in a smooth density estimate.

On the other hand, the quality of kernel density estimates relies on establishing the correct bandwidth (h) for the kernel estimate. If h is set too low, the resulting estimate would be considerable spiky as there would be insufficient smoothing. Contrastingly, h values that are too large lead to oversmoothing and a loss of detail. Within the kernel density estimation literature there is a considerable debate as how best to establish the optimal bandwidth. The main dispute is whether the integrated squared error (ISE) or the mean integrated squared error (MISE) should be used in determining the optimal bandwidth, notes Turlach (1993). This notwithstanding, this thesis is minimising the MISE in the endeavour to obtain the optimal bandwidth, which we note is in line with the Cameron & Trivedi (2005) approach.

The kernel density estimate is the sum of the weighted values, calculated using the kernel function K and the bandwidth h:

\[
\hat{f}_K = \frac{1}{qh} \sum_{i=1}^{n} w_i K\left(\frac{x - X_i}{h}\right)
\]

(4.3)
where \( q = \sum w_i \) if the weights are analytic weights or frequency weights and analytical weights are rescaled to \( \sum w_i = n \). Otherwise, if they are importance weights we set \( q := 1 \). When weights are not used, \( w_i = 1 \), for \( i = 1, \ldots, n \). We denote by \( h \) the bandwidth (or window width), \( x \) represents the range of the kernel estimate, \( n \) is the number of observations and \( X_i \) is the observation that the kernel is centred on. For the kernel function \( K \) in the formula there is a choice of eight different kernel functions to choose from, as shown in the following table.

### Table 4.5: Kernel Function, Commonly Used Examples

<table>
<thead>
<tr>
<th>Kernel</th>
<th>Kernel Function ( K(z) )</th>
<th>Parameter ( \delta )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uniform (or box or rectangular)</td>
<td>( \frac{1}{2} * 1(</td>
<td>z</td>
</tr>
<tr>
<td>Triangular (or triangle)</td>
<td>( \frac{3}{2}(1 -</td>
<td>z</td>
</tr>
<tr>
<td>Epanechnikov (or quadratic)</td>
<td>( \frac{3}{4}(1 - z^2) * 1(</td>
<td>z</td>
</tr>
<tr>
<td>Quartic (or biweight)</td>
<td>( \frac{15}{8}(1 - z^2)^2 * 1(</td>
<td>z</td>
</tr>
<tr>
<td>Triweight</td>
<td>( \frac{7}{8}(1 - z^3)^3 * 1(</td>
<td>z</td>
</tr>
<tr>
<td>Tricubic</td>
<td>( \frac{1}{8}(1 -</td>
<td>z</td>
</tr>
<tr>
<td>Gaussian (or normal)</td>
<td>( (2\pi)^{-\frac{1}{2}} \exp(-z^2/2) )</td>
<td>0.7764</td>
</tr>
<tr>
<td>Fourth-order Gaussian</td>
<td>( \frac{1}{3}(3 - z)^2(2\pi)^{-\frac{1}{2}} \exp(-z^2/2) )</td>
<td>-</td>
</tr>
<tr>
<td>Fourth-order quartic</td>
<td>( \frac{1}{12}(3 - 10z^2 + 7z^4) * 1(</td>
<td>z</td>
</tr>
</tbody>
</table>

Silverman’s seminal paper from 1986 on kernel density estimation evaluated many of the kernel functions in terms of their efficiency in minimising the MISE. Although it was concluded that there is little difference between the potential kernels efficiency, the Epanechnikov function was found to be the most efficient. As a result, this thesis is using the Epanechnikov function to obtain the optimal bandwidth.

The optimal bandwidth that minimises the MISE can calculated through differentiating \( MISE \) with respect to \( h \) and setting the derivative equal to zero:

\[
h^* = \delta \left( \int f''(x_0)^2 dx_0 \right)^{-0.2} N^{-0.2},
\]

(4.4)

Here, the constant \( \delta \), which is also used in Table 4.5, is defined to be

\[
\delta = \left( \frac{\int K(z)^2 dz}{\int z^2 K(z) dz^2} \right)^{0.2},
\]

(4.5)

where \( h^* \) is the optimal bandwidth, \( \delta \) is a constant, \( f(x_0) \) is a density estimate, \( N \) is the sample population and \( K \) is the kernel function.

Applying the above theoretical framework to the Loughran, Ritter & Rydqvist (2008) data set presented in Table 4.1, potentially informative kernel estimations can be constructed.

The countries will be grouped according to their geographical region:

\[\text{Cameron & Trivedi, 2005.}\]
Europe: Russia, Austria, Denmark, Norway, Netherlands, France, Turkey, Spain, Portugal, Belgium, United Kingdom, United States, Finland, Italy, Poland, Cyprus, Ireland, Greece, Germany, Sweden, Switzerland and Bulgaria. Asia: Indonesia, Philippines, Singapore, Thailand, Taiwan, Japan, Sri Lanka, Hong Kong, Korea, Malaysia, India and China. North America: The USA and Canada. South America: Argentina, Chile, Mexico and Brazil. Oceania: Australia and New Zealand. Middle East: Israel and Iran. Africa: Nigeria and South Africa.

Countries differ in many respects within these regions, however it would still be interesting to analyse whether any conclusion can be extended to any particular area.

Figure 4.5: Kernel Density Estimation: Asia, Europe and all Countries

Figure 4.5 shows the distribution of Asian underpricing (with a fat tail) to be considerably different from the categories of ‘all countries’ and Europe. Europe is also shown to display somewhat different properties from the group as a whole, with a distinct peak parallel to ‘all countries’. Also, Europe’s tail is flattens out sooner than the other countries in the estimate.
Figure 4.6: Kernel Density Estimation: South America, North America and all Countries

Figure 4.6 shows the North America IPO underpricing distribution to be concentrated at the lower end of the scale, with an early spike and a sudden drop. However, since it only applies to two countries, it may be difficult to assign significance to this distribution. Moreover, as mentioned in Section 4.2, the US and Canada differ considerably in their IPO markets. South America, on the other hand, is shown to mirror the general sample distribution, albeit somewhat negatively skewed. South America also flattens out sooner than ‘all countries’; there are no extremely high values in this sub-sample.
Figure 4.7: Kernel Density Estimation: Asia, Oceania and all Countries

Figure 4.7 illustrates the kernel density estimate for the Oceania set in contrast to its neighbour Asia and ‘all countries’. Oceania displays somewhat similar characteristics to those of North America in Figure 4.6. They are both regions represented by only two countries and this may make it difficult to analyse their performance in this framework. This notwithstanding, it is interesting to note the clear difference in performance between Oceania and Asia.

Figure 4.8: Kernel Density Estimation: Africa, Middle East and all Countries
For Figure 4.8, it should be noted that, again, that the samples for both Africa and the Middle East consist of only two countries apiece, making more general observation in regard to these regions difficult. Africa is seen to mirror ‘all countries’, however with a slightly reduced peak which is slightly negatively skewed.

Further complicating comparisons is the fact that the two African exchanges are very different. The South African stock exchange is older, considerably larger and more active than its Nigerian counterpart.\(^{15}\) Moreover, the South African market may also be more efficient, as Nigeria limits its stock prices to a daily change of 5 percent in either direction.\(^{16}\)

Figure 4.8 also represents the kernel density estimate for the Middle East. The Middle East is illustrated by a sharp early rise, with a high peak, and a subsequent drop in the estimate. Again, it is difficult to draw conclusions from this group, as it consists of only two, and very different, countries: Iran and Israel. Israel has been the centre of a considerable amount of IPO studies, due to its extensive use of IPO auctions. The Iranian IPO market, in contrast, is not widely referred to in the IPO literature.

### 4.6 Two-Sample Kolmogorov-Smirnov Test

Having discussed observed differences in the underpricing distribution between regions in Section 4.5, we can now test to see whether regional differences are significant. By using a two-sample Kolmogorov-Smirnov test it is possible to determine whether there are statistically significant differences in the underpricing distribution between the different regions. Table 4.6 shows the results from contrasting Asia, Europe, North America, South America and Oceania respectively with ‘all countries’:

\(^{15}\)This is based on contrasting market capitalisation, total turnover value and average daily turnover between the two markets (World Federation of Exchanges, 2007 and Okereke-Onyiake, 2009).

\(^{16}\)From personal communication with Professor Ikoku of Lagos Business School, Pan-African University on the 5th of April 2009.
Table 4.6: Two-sample Kolmogorov-Smirnov Test

<table>
<thead>
<tr>
<th>Region</th>
<th>Smaller group D</th>
<th>P-value</th>
<th>Exact</th>
<th>Smaller group D</th>
<th>P-value</th>
<th>Exact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asia</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0:</td>
<td>0.6979</td>
<td>0.000</td>
<td></td>
<td>0:</td>
<td>0.0000</td>
<td>1.000</td>
</tr>
<tr>
<td>1:</td>
<td>0.0000</td>
<td>1.000</td>
<td></td>
<td>1:</td>
<td>−0.3750</td>
<td>0.043</td>
</tr>
<tr>
<td>Combined K-S:</td>
<td>0.6979</td>
<td>0.001</td>
<td>0.0000</td>
<td>Combined K-S:</td>
<td>0.3750</td>
<td>0.0896</td>
</tr>
<tr>
<td><strong>Europe</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North America</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0:</td>
<td>0.1163</td>
<td>0.950</td>
<td></td>
<td>0:</td>
<td>0.5061</td>
<td>0.155</td>
</tr>
<tr>
<td>1:</td>
<td>−0.6512</td>
<td>0.198</td>
<td></td>
<td>1:</td>
<td>−0.1951</td>
<td>0.758</td>
</tr>
<tr>
<td>Combined K-S:</td>
<td>0.6512</td>
<td>0.392</td>
<td>0.275</td>
<td>Combined K-S:</td>
<td>0.5061</td>
<td>0.308</td>
</tr>
<tr>
<td>South America</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0:</td>
<td>0.2093</td>
<td>0.846</td>
<td></td>
<td>0:</td>
<td>0.3256</td>
<td>0.667</td>
</tr>
<tr>
<td>1:</td>
<td>−0.7209</td>
<td>0.137</td>
<td></td>
<td>1:</td>
<td>−0.4419</td>
<td>0.474</td>
</tr>
<tr>
<td>Combined K-S:</td>
<td>0.7209</td>
<td>0.274</td>
<td>0.184</td>
<td>Combined K-S:</td>
<td>0.4419</td>
<td>0.850</td>
</tr>
<tr>
<td>Oceania</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0:</td>
<td>0.2791</td>
<td>0.743</td>
<td></td>
<td>0:</td>
<td>0.2791</td>
<td>0.998</td>
</tr>
<tr>
<td>1:</td>
<td>−0.2326</td>
<td>0.813</td>
<td></td>
<td>1:</td>
<td>−0.2326</td>
<td>0.813</td>
</tr>
<tr>
<td>Combined K-S:</td>
<td>0.2791</td>
<td>0.998</td>
<td>0.994</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle East</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0:</td>
<td>0.2791</td>
<td>0.743</td>
<td></td>
<td>0:</td>
<td>0.2791</td>
<td>0.998</td>
</tr>
<tr>
<td>1:</td>
<td>−0.2326</td>
<td>0.813</td>
<td></td>
<td>1:</td>
<td>−0.2326</td>
<td>0.813</td>
</tr>
</tbody>
</table>

Generally speaking, the Kolmogorov-Smirnov test, is used as a tool to determine whether there are any differences in the distribution of a variable between two groups. In other words, the null hypothesis states that there is equality of distributions. With this in mind, the first line tests the hypothesis that the data set for Group 0 contains smaller values than for Group 1. The $D$-value shows the largest difference between the distribution functions, with a corresponding $p$-value to indicate whether the observed $D$-value is significant. In contrast, the second line tests whether Group 0 contains larger values than for Group 1, again with corresponding $D$ and $p$-values. The third and final line, states the approximate $p$-value for the combined test.

Interestingly, the $p$-values for the standard test, which are based on the asymptotic distribution derived by Smirnov (1939), are not suitable for smaller samples ($n < 50$). As a result, when working with small samples, the $p$-values are reported too conservatively (i.e., the real $p$-value is considerably lower than reported). This phenomenon can be corrected for by analysing the nondirec-
tional hypothesis based on an empirical continuity correction. Here, this is represented as the exact value in the third line.

By applying these principles to the data set it is possible to analyse the underlying fundamentals. The variable under consideration is ‘underpricing’. Specifically, we are interested in the distribution of underpricing between specific regions as compared to the sample in general.

For Asia, the first line tests whether the remaining sample contains smaller values of underpricing than the Asian grouping, which is clearly found to be the case. The second lines run a similar test but testing whether the remaining sample contains larger values than the Asian grouping, which is not the case. The exact \( p \)-value of 0.000 would strongly suggest that the null hypothesis can be rejected and that Asia displays a significantly different underpricing distribution to that of the sample in general.

The same principle can be applied to Europe (exact value: 0.060 - significant), North American (0.275 - not significant), South America (0.223 - not significant), Oceania (0.184 - not significant), Middle East (0.741 - not significant) and Africa (0.994 - not significant). From these results, it is clear that Europe also differs in its underpricing distribution in relation to the rest of the world, as the European distribution displays a lower degree of underpricing than the remaining sample as a whole.

4.7 Conclusion

The analysis carried out in this chapter, through scatter plots and a simple regression model, would suggest that there is a statistically significant, negative correlation between IPO underpricing and globalisation. As a country becomes more open and integrated into the world community, it should experience less IPO underpricing. This is not surprising, as globalisation may be a proxy for greater transparency, higher accountability and higher compliance with international standards in financial markets and in corporate governance. We learn in Part III of the thesis that the market participants in Russia, India and China are keen on moving towards international standards in their financial markets (although India has wholeheartedly adopted a ‘gradualist approach’ to their liberalisation process). As we see these countries integrate further into the wider global community, we can, according to this analysis, expect IPO prices that more accurately reflect the company fundamentals. This is the first study, as far as we know, that links the KOF Globalization Index to IPO underpricing. However, it should be noted that, as we developed a more general model in Chapter 5, involving a range of variables and embracing economic, demographic and institutional factors, the globalisation variable was swamped by those dominant variables and finally fell out of statistical significance. This influence of dominating variables (including, archetypally the demographic variable) in regression analysis is well known, and should not suggest that globalisation is unimportant. In a larger sample, it would be likely to remain important and significant. Fortunately, we are using the ‘mixed method’, which allows us to keep global-
isation in our qualitative analysis, even though it falls out of our most general quantitative analysis in Chapter 5. Thus, globalisation forms a key part of the semi-structured interview agenda covering the fieldwork conducted in Russia (Moscow), India (Mumbai) and China (Shanghai) and benchmarked against the UK (London) and which is further analysed in Part III of this thesis.

The kernel density estimates for Asia and Europe would suggest that they are considerably different to the general group of countries as a whole. The Asian underpricing distribution would seem to be located at the higher end of the scale. In contrast, the European underpricing distribution would seem to display the opposite properties. For the other regions, it becomes more difficult to draw conclusions. The kernel density estimates for North America, Oceania and the Middle East all seem to at peak around the same point in the sample, possibly suggesting that they display similar characteristics. However, their small sample sizes make comparisons difficult. The Middle East and South America also display somewhat similar density estimates to both each other and ‘all countries’, but they are distinctly different markets.

Our two-sample Kolmogorov-Smirnov test strongly suggests that both Asia and Europe display a significantly different underpricing distribution to that of the sample in general. Europe, with generally mature and developed financial markets, display uniquely low average underpricing. Asia, on the other hand, with generally with immature and developing markets, is found at the higher end of the IPO underpricing scale.
Chapter 5

Econometric Modelling

5.1 Introduction

Following the IPO underpricing discussion in Chapter 3 and the explorative data analysis carried out in Chapter 4, Chapter 5 is dedicated to econometric modelling of the IPO data and, thus, completes Part II and provides the foundation for the fieldwork which is analysed in Part III. The exploratory data analysis (Chapter 4) highlighted the unique attributes of the Russian, Indian and Chinese financial markets in terms of IPO underpricing. Before travelling to Russia, India and China in an endeavour to better understand these important markets, it is imperative to more fully comprehend the dynamics that may drive these IPO markets. Once the significance and impact of key variables have been established through econometric analysis, it is possible to build on this knowledge and to further illuminate its interpretive content by activities in the field. This fieldwork will be covered in Part III of the thesis, with country specific chapters analysing Russia, India and China (which are themselves benchmarked against the UK).

As previously discussed, underpricing occurs when the IPO price is below the subsequent market value (normally taken as the closing price after the first day of trading). Individual IPOs can be either underpriced, on the money, or overpriced. However, when annualised, which is a kind of averaging or smoothing of data, all countries display IPO underpricing.\(^1\) We know from Chapter 4 that there is a wide range of average underpricing across the globe, with Russia, India and China being of particular interest due to their contrasting pricing behaviour. This is to say that the three countries are at the extremes of low (Russia) and high underpricing (India and China). However, to further analyse these anomalies in the field, it is imperative that we analyse and discuss some of the significant factors that may drive difference in underpricing between countries in an inferential framework. To advance this endeavour, we make use of six

\(^1\)Loughran, Ritter & Rydqvist (2011) provide a table with 49 countries represented. The IPO time periods vary between the countries, however they all display underpricing.
5.2 Model Specification

In order to further the understanding of the factors that may drive cross-country differences in underpricing, it is advantageous to construct an econometric model that may capture some of the key IPO pricing factors. In Chapter 4, the exploratory data analysis chapter, we discussed and analysed the role of globalisation in pricing IPOs. Now, in Chapter 5, we have the opportunity to focus our analysis on exploring some variables in more detail. Chapter 4 would suggest that there is a link between globalisation and the level of country’s underpricing. It may be reasonable to posit that transparency, accountability, openness of the economy, education levels, the effectiveness of regulators, business ethics, the efficiency of stock markets and the fairness/effectiveness of the judicial system are all factors that are influenced by the globalisation process and, by extension, may influence IPO underpricing. In short, economic, demographic and institutional factors may partly explain underpricing.

As is often the case in data analysis, the data available is somehow compromised, incomplete or missing altogether, which necessitates the use of proxies. This specific analysis, looking at variables across 39 countries in total, is no exception.

Quantitative easing and the role of monetary policies to stimulate growth have been at the forefront of policy discussions in recent years in both the US and the UK amongst other countries, due to the 2008 financial crisis. Blinder (2010) notes that it also played a significant role in the Japanese economy between 2001 and 2006, before entering into the US debate in 2008. Mishkin (1999) notes that an expansionary monetary policy will generate growth and reduce unemployment in the short-run, but will result in higher inflation in the long-run. To capture the effect of cross-country liberalisation of money on IPO underpricing, this model includes a variable that represents domestic credit extended to the private sector (PSD).

An interesting avenue of exploration would be to analyse the impact of the market microstructure on IPO underpricing. For example, Brennan & Subrahmanyam’s (1996) seminal paper finds that informed investors are instrumental in creating considerable illiquidity costs for uninformed investors. As a result, required rates of return on relatively illiquid shares should be higher, according to Brennan & Subrahmanyam. Additionally, Andersen, Bollerslev & Meddahiz (2011) conclude that market microstructure noise reduces share price forecasting accuracy. It would also be interesting to analyse cross-country market efficiency against IPO underpricing. Fama (1965, 1970 and 1998) and Samuelson (1965) were pioneers in this field and they established the efficient market hypothesis (EMH) which is still being analysed and extended today. Lo (2005) states that

\[ \text{See Benford, et al. (2009) on the UK and quantitative easing.} \]
behavioral finance can be reconciled with the efficient market hypothesis and proposes a new framework: the Adaptive Markets Hypothesis. It is not possible to account for these issues in this model, but, as a proxy for increased market liquidity and maturity, we use stock market capitalisation growth ($MCG$).

It would also be interesting to consider demographic variables in this context. For example, Hong, Kubik & Stein (2004) posit that there is a link between social interaction and stock market participation in the US, while Kumar (2009) finds that individuals’ propensity to gamble and their investment decisions are correlated in the US. Financial literacy and stockmarket participation (van Rooij, Lusardi & Alessie, 2011) would also be of great interest when evaluating factors that drive underpricing. It is not possible to capture financial literacy in this econometric model. However, as this thesis makes use of a mixed-method approach, we will explore this in more detail in the fieldwork (i.e., the qualitative analysis in Chapters 6, 7 and 8). In this econometric model, we make use of population ($Pop$) to represent the demographic dimension, which will be explored in much greater detail in the field research carried out in Russia, India, China and the UK (Part III of the thesis).

Earnings quality is a crucial factor in reducing asymmetric information in financial markets, which in turn should reduce IPO underpricing. The institutional framework governing this area is becoming more complex, and increasingly international as we see the rise of multi-national companies (MNCs) and globalisation. For example, the US Sarbanes–Oxley Act (SOX) may have forced lower quality auditors to exit the market in the US (DeFond & Lennox, 2011), while it also served as the inspiration for the framework that underpin the financial standards required for listed Indian companies (i.e., Clause 49), note Chakrabarti, Megginson & Yadav (2008). However, it may be difficult to assess whether international standards are truly met in audits. Luchs, Stuebs & Sun (2009) examining the relationship between earnings quality and company reputation. They find that in the US, higher reputation companies display better earnings quality. This econometric model will use timeliness of disclosures ($FreqRep$), which is a combination of the frequency of financial reporting and the number of items included in reports, as a proxy for audit quality and reliability in this cross-country analysis. However, once again, the following fieldwork in Part III of the thesis will be a useful tool to better understand audit dynamics on a country-specific level.

Market contestability and barriers to market entry may also be a partial explanation of IPO underpricing. A perfectly contestable market needs to meet three requirements: agents can freely enter and exit the market at no costs, there are no sunk costs and all firms have access to the same level of technology. Such a market would ensure efficiency among the incumbent firms, due to the

---

3It should be noted that SOX was rushed through by US politicians amid corporate scandals (prominently Enron), volatile financial markets and significant media focus. It has been widely noted in the academic literature that the Act should not have implemented corporate governance mandates. See for example Romano’s (2005) widely cited paper for a review of the SOX Act and corporate governance.

4See Baumol’s (1982) seminal paper on market contestability.
threat of rival companies entering the market. From the perspective of country development, de Soto (1989) posits that barriers to entry are detrimental to increasing income levels in Peru, as it is difficult for small businesses to enter the formal economy. Moreover, Herrendorf & Teixeira (2011) conclude that if all barriers to entry in developing countries were removed, they would be lifted out of poverty. Barriers to entry may encourage corruption and the formation of cartels, both of which would adversely affect IPO underpricing. This analysis makes use of minimum capital requirement to start a business ($MCR$) as a proxy for barriers to entry and also as a gauge of the level of bureaucracy and legal requirements that countries level on businesses.

The viability of the connection between financial openness and economic growth has been discussed for a number of years. However, according to Bekaert, Harvey & Lundblad (2011), three studies, Gupta & Yuan (2009), Mitton (2006) and Quinn & Toyoda (2008), have firmly established that financial openness and economic growth are linked. And yet, Claessens et al. (2010) warn that with the increased level of globalisation and interconnectedness of financial markets, countries face increased systemic risk and vulnerability to global crises.\footnote{Schwarc (2010) notes that the increasing complexity of financial markets and the threat of systemic failure pose a significant challenge to regulators. Frank & Hesse (2009) examine the financial spillovers into developing markets, during the 2008 global financial crisis. Interestingly, Gai, Jenkinson & Kapadia (2007) find that systemic risk in developed countries is now less likely to occur due to financial innovations and greater macroeconomic stability. However, potentially, systemic risk may have become a more severe factor.}

Freedom to use alternative currencies ($FreeAltCur$) serves as a proxy for country openness in this econometric study.

The general model may be expressed as follows:

\[
\text{Underpricing} = f(\text{economic variables; demographic variables; institutional variables}) + \text{error}.
\] (5.1)

IPO underpricing ($Undpri$) is, as discussed and outlined in Chapter 4 (see table 4.1), a global phenomenon. It is measured as the difference between the issue price and the market value. The market value is assumed to be evident after one day of trading on most stock exchanges, hence underpricing is calculated as $Undpri = \left( \frac{\text{Issue price}}{\text{Closing price of first day of trading}} \right) \times 100$

Before moving on to the regression model, the independent variables will be listed in greater detail, with definitions, sources and a note on their relevance to this model.

\textit{Economic variables}

Private Sector Development ($PSD$), defined as domestic credit extended to the private sector, is obtained from the World Development Indicators (World Bank, 2003) and represent 2001 figures. The World Bank notes that a well-developed private sector is indicative of a wider, sound, macro climate. Private sector development is dependent on policies that promote openness in the economy and ensure a legal/regulatory framework which supports a healthy busi-
ness environment (e.g., protects private property rights and promotes access to credit).\footnote{World Bank, 2003.}

Stock Market Capitalisation Growth ($MCG$) is calculated as the change between the ratio of market capitalisation to GDP in 1990 and the ratio of market capitalisation to GDP in 2001. These figures are obtained from the World Development Indicators (World Bank, 2003). It is often the case that countries with large stock market capitalisation to GDP ratios are associated with lower risk ratings in relation to their investment climate.\footnote{World Bank, 2003.}

**Demographic variables**

The Population variable ($Pop$) is, of course, a reflection of the size of a country’s population.\footnote{UN Stats (2006) for 2003 world population, except for Ireland and Taiwan. For Ireland, Department of Health (2003), population figures for 2002. For Taiwan, 2002 figures from Yearbook of the Republic of China (2004).} However, in this analysis population may reflect more nuanced issues. Countries with larger populations may be less transparent and, as such, experience less corporate and institutional accountability. Extrapolating on the demographic variable, it may also be that other considerations within this heading may influence market dynamics, for example, income levels, education, family sizes and age. For instance, we know that China is facing an aging population, with all of the challenges that are associated with such shifts in the population make up. Moreover, as financial products are becoming increasingly complex and international in nature, it may also be that education is a factor in creating market anomalies. To more fully understand such issues and gain insight beyond what the figures can tell us, it is important to visit the countries in question. Moving from the quantitative analysis in Part II to the qualitative analysis in Part III, will allow this thesis to provide a more substantial and considered conclusion on how economic, demographic and institutional variable influence market anomalies.

**Institutional variables**

The Timeliness of Disclosures variable (FreqRep) measures the ‘[f]requency of reporting, consolidation of interim reports, # of disclosed items’ (Bushman, Piotroski & Smith, 2004:211). Bushman, Piotroski & Smith note that higher frequency of and more comprehensive disclosure in financial reports yield higher scores in their study.

The data on the Minimum Capital Requirement to start a business as a share of GNI per capita in 2002 ($MCR$) was obtained in the World Development Indicators (World Bank, 2003). This variable relates to the business environment within a country. When a new company seeks to establish a new business in a country, it is faced with some degree of bureaucracy and certain legal requirements. In some countries the process is quite straightforward, while in others, it can represent a significant barrier that drives businesses into the informal economy. The World Bank (2003) finds that as of January 2002, the minimum capital requirement to start a business as a share of GNI per capita varied considerably between Russia, India, China, the UK and the US. For Russia it was
38 percent, while there was no minimum requirement in India. India’s openness to capital requirements notwithstanding, the country is, of course, well known for its substantial informal economy. Harris-White & Sinha (2007) conclude, through the use of both fieldwork and modelling, that the informal sector of the economy is expanding at a rapid pace in developing countries. China is another country with a large, informal economy, however, China required a staggering 4338 percent of GNI per capita to start a business (which may partly reflect the low GNI for the country) in 2002. In 2002, neither the US nor the UK had any minimum requirements in terms of capital to start a business.

Freedom to Use Alternative Currencies (FreeAltCur) is a composite of two factors: the ‘Freedom of Citizens to Own Foreign Currency Bank Accounts Domestically and Abroad’ and the ‘Difference between the Official Exchange Rate and the Black Market Rate’ in 2001 (Gwartney et al., 2001:6). Both variables are weighted equally to produce the Freedom to Use Alternative Currencies variable. In other words, it measures the freedom of a country’s citizens to access foreign currency.

5.3 Regression Model

We now turn to expressing the general model of (5.1) in a specific form, set out in Equation 5.2 below. As a reminder, Table 5.1 briefly reviews the definitions of all relevant variables described in the previous section, in the context of three crucial factors: economic, demographic and institutional.

Table 5.1: Brief Definitions of Explanatory Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Acronym</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPO Underpricing</td>
<td>Undpri</td>
<td>Economic</td>
</tr>
<tr>
<td>Private Sector Development</td>
<td>PSD</td>
<td>Economic</td>
</tr>
<tr>
<td>Market Capitalisation Growth</td>
<td>MCG</td>
<td>Economic</td>
</tr>
<tr>
<td>Population</td>
<td>Pop</td>
<td>Demographic</td>
</tr>
<tr>
<td>Frequency of Financial Reporting</td>
<td>FreqRep</td>
<td>Institutional</td>
</tr>
<tr>
<td>Minimum Capital Requirements to start a business</td>
<td>MCR</td>
<td>Institutional</td>
</tr>
<tr>
<td>Freedom to use Alternative Currencies</td>
<td>FreeAltCur</td>
<td>Institutional</td>
</tr>
</tbody>
</table>

The variables in Table 5.1, when entered into the above model (5.1), produce this specific equation (5.2) which can be econometrically estimated:

\[
Undpri = \beta_0 + \beta_1 PSD + \beta_2 MCG + \beta_3 Pop + \beta_4 FreqRep + \beta_5 MCR + \beta_6 FreeAltCur + \epsilon \tag{5.2}
\]

An estimation of equation (5.2) by least squares, using Stata software and the command <reg> is provided in Table 5.2.
Table 5.2: Estimated Regression Model Explaining IPO Underpricing

<table>
<thead>
<tr>
<th>Number of obs</th>
<th>F(6,32)</th>
<th>Prob &gt; F</th>
<th>$R^2$</th>
<th>Adj$R^2$</th>
<th>Root MSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>39</td>
<td>33.74</td>
<td>0.0000</td>
<td>0.8635</td>
<td>0.8379</td>
<td>0.1161</td>
</tr>
</tbody>
</table>

| Undpri | Coef. | Std.Err. | t     | P > |t| Elast
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PSD</td>
<td>.0010137</td>
<td>.00045194</td>
<td>2.24**</td>
<td>0.032</td>
<td></td>
</tr>
<tr>
<td>MCG</td>
<td>-.0022484</td>
<td>.000867433</td>
<td>-2.59**</td>
<td>0.014</td>
<td></td>
</tr>
<tr>
<td>Pop</td>
<td>4.94e-07</td>
<td>.0109869</td>
<td>4.37***</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>FreqRep</td>
<td>-.0021069</td>
<td>.00089032</td>
<td>-2.36**</td>
<td>0.024</td>
<td></td>
</tr>
<tr>
<td>MCR</td>
<td>.0002546</td>
<td>.00059126</td>
<td>4.28***</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>FreeAltCur</td>
<td>-.039901</td>
<td>.0109508</td>
<td>-3.64***</td>
<td>0.001</td>
<td></td>
</tr>
<tr>
<td>cons</td>
<td>0.6255221</td>
<td>.1156258</td>
<td>5.41</td>
<td>0.000</td>
<td>-3.825</td>
</tr>
</tbody>
</table>

Note: ***Significant at 1% level, **Significant at 5% level

Table 5.2 displays the results estimated by ordinary least squares (OLS) for $N = 39$ observations, with some observations being lost from the Ritter (2008) sampling frame of $N = 45$, due to missing data for a few variables from a few countries.\(^{10}\) Regarding goodness-of-fit, $R^2$, a satisfactory value of 0.86 is obtained. Moreover, the $F$ statistic (33.74) for the model is highly statistically significant with $p = 0.0000$. Finally, each single parameter is statistically significant as indicated by the $t$-test being above the 5% critical value.

The independent variables represent different aspects of the makeup of a country: economic, demographic and institutional. The sample of 39 observations, represents countries from North American, South America, Europe, the Middle East, Africa, Asia and Australia. See Table 4.1 (Chapter 4) for a full country list.

Private Sector Development (PSD), here measured as domestic credit extended to the private sector, is noted as having a positive coefficient, which is to be expected, and it is statistically significant at the 5% level ($p$-value of 0.032).\(^{11}\) This is, in effect, liberalisation of money, which would cause economic growth, stimulate the financial markets and, as a result, also impacts on the expected returns from the IPO market. This model supports this assumption. The elasticity of underpricing with respect to PSD has a magnitude of +0.253, implying that it has one of the largest impacts on underpricing among the exploratory variables analysed.\(^{12}\) PSD growth is dependent on the openness of

---

\(^{10}\)The countries not included in the 39 country sample are: Belgium, Bulgaria, France, Netherlands, Nigeria and Portugal.

\(^{11}\)The World Bank, 2003.

\(^{12}\)The elasticities used in this analysis are obtained from the coefficients of the variables in
the economy and on institutional effectiveness. As it links different aspect of the economy, it is interesting to note that it has a significant impact on IPO underpricing.

Market Capitalisation Growth or market value growth (MCG) is here defined to be the ratio of nominal market value in 2001 to the market value in 1991.\(^\text{13}\) It is found to have a negative coefficient and to be statistically significant at the 5% level \((p\text{-value of } 0.015)\). The model suggests that stronger market growth over this period is associated with lower returns. Generally speaking, one may expect high growth markets to display higher IPO underpricing. This has certainly been the case for developing countries like Brazil, Sri Lanka, Korea, Malaysia and India in recent years. It was also evident during the US dot-com bubble of 1999 – 2000, where excessive IPO returns became the norm. The highly significant negative coefficient may be explained by the nature of the markets that saw growth in the 1990s. European and North American markets and their satellites all performed well during this period. They recorded significant, stable growth and at the same time managed to avoid, on average, disproportionate IPO mispricing. The elasticity of \(-0.0764\) calibrated for Market Capitalisation Growth is the smallest of the elasticities in this model, which would suggest that for policy implementation purposes this area has the least potential for policy influence on underpricing.

The coefficient on Population \((Pop)\) is positive and highly statistically significant at the 1% level \((p\text{-value of } 0.000)\).\(^\text{14}\) China and India are prime examples of this relationship at the higher end of the scale. Russia is one of the exceptions to this rule. With around 143 million citizens it is one of the more populous countries, and yet, it displays negligible underpricing. This only adds to the previous discussion regarding the opacity of Russian market dynamics and illustrates why it is paramount to travel to the country to more fully understand the economic and social trajectory of the country. In contrast, countries such as Austria, Canada, Denmark, Chile, Norway, Israel and Hong Kong are all at the lower end of the scale in terms of both underpricing and population size. It may be that these smaller countries (in terms of population) offer a higher degree of accountability in their markets, that is, their markets may be more transparent. Although the population variable is highly statistically significant at the 1% level, its \(+0.109\) elasticity suggests that it is not one of the most important factors in influencing underpricing performance.

The frequency of interim corporate reports \((FreqRep)\) also encapsulates ‘number of items disclosed’ and ‘consolidation of interim reports’.\(^\text{15}\) \(FreqRep\) is significant at the 5% level \((p\text{-value of } 0.024)\) and has a negative coefficient. The negative coefficient supports the notion that a higher degree of transparency/accountability reduces underpricing. Moreover, with a relatively high elasticity in absolute terms of \(-0.184\), compared to the other independent variables, the log linear form. This is done to overcome the issue of choosing at which point to calculate the elasticity.

\(\text{13}\) The World Bank, 2003.
\(\text{15}\) Bushman, et al. (2004).
ables, \( FreqRep \) has the potential for greater policy impact on underpricing (\( Undpri \)).

Minimum Capital Requirement to start a business as a percentage of GNI per capita (\( MCR \)) is, in effect, a measure of barriers to entry.\(^{16}\) Highly statistically significant at the 1% level (\( p\)-value of 0.000), it is noted as having a positive coefficient. This would suggest that countries with greater minimum capital requirements will also experience greater underpricing. If it is more difficult to set up a new business in a country, some insiders might be more inclined to manipulate the share price to maximise their returns, as start up companies may be less frequent. Higher barriers to entry may lead to more collusion between incumbent agents. Minimum Capital Requirements display an elasticity of +0.293, which is the highest absolute value of any elasticity in the model.

Freedom to Use Alternative Currencies (\( FreeAltCur \)) reflects the availability of money in the economy.\(^{17}\) However, it may also be a proxy for the openness and efficiency of a country’s financial markets. \( FreeAltCur \) has a negative coefficient and is statistically significant at the 1% level (\( p\)-value of 0.001). Moreover, with an elasticity of \(-0.172\) it is among the key variables in the model in regard to impact on IPO underpricing. It is not surprising to see a negative coefficient. As economies open up their markets they become more accountable to external stakeholders and they have the opportunity to adopt more efficient controls, both on a market and a corporate governance level. It is interesting to consider the availability of foreign exchange in China. As we will discover and discuss in Chapter 7, The Chinese Dragon, China has a well developed, informal economy that can move currency around, even internationally. Some of these facilities may not be widely appreciated in the international literature, which tends to focus more on corporate transactions. Indeed, it has become clear through the fieldwork that even some Chinese citizens do not know about these facilities, which again emphasises the need to couple quantitative analysis with a more in-depth qualitative investigation on the ground.

### 5.4 Robustness Testing

To determine the strength of the findings discussed in the previous section, it is paramount to run a series of robustness tests. In this thesis we will report on three investigatory techniques. The first, multicollinearity, looks at problems which may arise if regressors are highly correlated (see Section 5.4.1). The second, kernel density trimming, tests the robustness of the coefficients, as a predetermined percentile of values (10 percent in this analysis) are trimmed away on each variable individually (see Section 5.4.2 on trimming). The third, trimmed least squares (TLS), is an extension of, and complement to, the kernel density trimming. TLS trims the variables simultaneously (at 5, 10, 15 and 20

\(^{16}\)World Bank (2003).
percent levels), which again allows us to assess the robustness of the coefficients.\(^{18}\)

### 5.4.1 Multicollinearity

Having discussed the merits of the coefficients in relation to not only being statistically significant but also economically significant, it is advisable to test for multicollinearity. As we know, multicollinearity becomes a problem when two or more independent variables are highly correlated in a multiple regression. When this occurs in a regression, the coefficient estimates may become unreliable. Farrar & Glauber (1967), amongst others in the 1960s and 70s especially, discuss the implications of multicollinearity and how best to detect this issue in regressions. It is a classic consideration and should be accounted for in this type of work. Multicollinearity often exists amongst regressors but may not be crucial, depending on its degree of severity.

There are two ways of testing for this condition. Method 1 would be simply to analyse the bivariate correlation coefficients as given in Table 5.3.\(^{19}\)

#### Table 5.3: Bivariate Correlation Coefficients

<table>
<thead>
<tr>
<th></th>
<th>Undpri</th>
<th>PSD</th>
<th>MCG</th>
<th>Pop</th>
<th>FreqRep</th>
<th>MCR</th>
<th>FreeAltCur</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undpri</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSD</td>
<td>0.1458</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MCG</td>
<td>0.5540</td>
<td>-0.0835</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pop</td>
<td>0.8195</td>
<td>-0.0489</td>
<td>0.6219</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FreqRep</td>
<td>-0.2187</td>
<td>0.1105</td>
<td>0.0426</td>
<td>-0.0784</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MCR</td>
<td>0.7908</td>
<td>0.1482</td>
<td>0.8083</td>
<td>0.7277</td>
<td>-0.0516</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>FreeAltCur</td>
<td>-0.4506</td>
<td>0.3537</td>
<td>-0.4259</td>
<td>-0.4221</td>
<td>-0.0061</td>
<td>-0.2740</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

Any figure above 0.8 would be considered high. It is evident, from Table 5.3, that with a correlation coefficient of 0.8083, correlation between Minimum Capital Requirement to start a business (MCR) and Market Capitalisation Growth (MCG) is a borderline result.

The second, and more comprehensive, method of testing multicollinearity is to test for Variance Inflation Factors (VIFs). The dependent variable in this simple model represents IPO underpricing (Undpri).

The general model:

\[
\text{Underpricing} = f(\text{economic variables}; \text{demographic variables}; \text{institutional variables} + \text{error}),
\]

\(^{18}\)We ran extensive tests of endogeneity (viz. Hausman (1978) and Wu (1973, 1974)). That is, we attempted to refute exogeneity in the independent variables. In general, we failed to refute exogeneity. However, in one case, for MCG, the variable with the lowest elasticity, there was a slight suggestion of endogeneity at somewhat over the 5 percent significance level.

\(^{19}\)Table 5.3 is produced using the Stata command \texttt{<correlate>} on the dependent and independent variables.
can be stated specifically as:

\[ Undpri = \beta_0 + \beta_1 PSD + \beta_2 MCG + \beta_3 Pop + \beta_4 Time + \beta_5 MCR + \beta_6 FreeAltCur + \epsilon. \]  
(5.4)

The VIF test can be broken down into three stages:

Suppose that equation 5.4 is represented by a general model that has \( K \) regressors and is indexed by \( i \):

\[ Y_i = \beta_0 + \beta_1 X_{1,i} + \beta_2 X_{2,i} + \ldots + \beta_K X_{K,i} + \epsilon_i \]  
(5.5)

Now each independent variable can be tested as a dependent variable to determine multicollinearity by running auxiliary regressions of the form:

\[ X_k = \alpha_0 + \alpha_1 X_{1,i} + \ldots + \alpha_{k-1} X_{k-1,i} + \alpha_{k+1} X_{k+1,i} + \ldots + \alpha_K X_{K,i} + \epsilon_i \]  
(5.6)

For each auxiliary regression an unadjusted goodness of fit \( (R_k^2) \) can now be obtained. This reflects the proportion of variation in \( X_k \) that can be explained by variation in the other independent variables \( X_1, X_2, \ldots, X_{k-1}, X_{k+1}, \ldots, X_K \).

Let us now turn to the Variance Inflation Factor (VIF) for \( X_k \), which is defined to be

\[ VIF (\hat{\beta_k}) = \frac{1}{1 - R_k^2}. \]  
(5.7)

The higher the VIF for a given variable, the higher the estimated coefficient of that variable. Any \( VIF (\hat{\beta_k}) \) in excess of 5 might be a cause of concern in terms of multicollinearity, to the extent that variables rejected under t-tests as insignificant may need to be re-evaluated.

### Table 5.4: Variance Inflation Factor (VIF) Estimates

<table>
<thead>
<tr>
<th>Variable</th>
<th>VIF</th>
<th>1/VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSD</td>
<td>1.37</td>
<td>0.730780</td>
</tr>
<tr>
<td>MCG</td>
<td>3.65</td>
<td>0.274009</td>
</tr>
<tr>
<td>Pop</td>
<td>2.44</td>
<td>0.409182</td>
</tr>
<tr>
<td>FreqRep</td>
<td>1.06</td>
<td>0.941492</td>
</tr>
<tr>
<td>MCR</td>
<td>4.81</td>
<td>0.207840</td>
</tr>
<tr>
<td>FreeAltCur</td>
<td>1.52</td>
<td>0.658784</td>
</tr>
<tr>
<td>MeanVIF</td>
<td>2.48</td>
<td></td>
</tr>
</tbody>
</table>

Fortunately, as Table 5.4 indicates, all VIF factors are below the critical value of 5.\(^{20}\) Whilst the Minimum Capital Requirement to start a business \( (MCR) \) is found to be the variable with the strongest potential for multicollinearity, it has a VIF factor which is still below the critical value of 5. Overall, one therefore concludes that no significant problems of multicollinearity arise for estimates of the key equation (5.1).

\(^{20}\)Table 5.4 was produced using Stata. First the regression command <reg> was run, followed by the command <estat vif>.
5.4.2 Sample Trimming

By running tests that trim the data and remove outliers it is possible to further assess the robustness of the specified model.

**Kernel Density Trimming**

Kernel density estimates were used in Chapter 4 and we can now bring the method full-circle by using it to trim one independent variable at a time. We will exemplify the process by reporting the full results of the two independent variables in the model (5.2) with the highest elasticities in terms of absolute values: PSD and MCR, as these are potentially the most important in policy contexts. Table 5.5 and Table 5.7 illustrate the percentile trimming levels. For example, a 10 percent trim will remove the observations below the 5th percentile and above the 95th percentile. Moreover, Table 5.6 and Table 5.8 represent the modified results, on the basis of a ten percent trim of respectively PSD and MCR.

**Table 5.5: Distribution of PSD**

<table>
<thead>
<tr>
<th>Percentiles</th>
<th>Smallest</th>
</tr>
</thead>
<tbody>
<tr>
<td>1%</td>
<td>11.5</td>
</tr>
<tr>
<td>5%</td>
<td>15.4</td>
</tr>
<tr>
<td>10%</td>
<td>20.6</td>
</tr>
<tr>
<td>25%</td>
<td>34.7</td>
</tr>
<tr>
<td>50%</td>
<td>86.2</td>
</tr>
<tr>
<td>75%</td>
<td>127.2</td>
</tr>
<tr>
<td>90%</td>
<td>149.2</td>
</tr>
<tr>
<td>95%</td>
<td>158.5</td>
</tr>
<tr>
<td>99%</td>
<td>186.7</td>
</tr>
</tbody>
</table>

| 50% | Obs 39      | 75% | 127.2 | 149.2 | 90% | 149.2 | 155.9 | 95% | 158.5 | 158.5 | 99% | 186.7 | 186.7 | Mean 86.22051 |
|------|-------------|------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------| Std. Dev. 48.66319 |
| Obs | Sum of Wgt. 39 |

**Table 5.6: 10 percent Trim of PSD**

<table>
<thead>
<tr>
<th>Number of obs</th>
<th>F(6,30)</th>
<th>Prob &gt; F</th>
<th>$R^2$</th>
<th>Adj $R^2$</th>
<th>Root MSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>37</td>
<td>31.91</td>
<td>0.0000</td>
<td>0.8645</td>
<td>0.8375</td>
<td>.11887</td>
</tr>
</tbody>
</table>

| Undpri | Coef.  | Std.Err. | t     | $P > |t|$ | [95% Conf. Interval] |
|--------|--------|----------|-------|------|---------------------|
| PSD    | .0009443 | .0005022 | 1.88  | 0.070 | -.0000812, .0019698 |
| MCG    | -.0024034 | .0009159 | -2.62 | 0.014 | -.004274, -.0005328 |
| Pop    | 4.90e -07 | 1.16e -07 | 4.23  | 0.000 | 2.53e -07, 7.27e -07 |
| FreqRep| -.0019793 | .0009303 | -2.13 | 0.042 | -.0038792, -.000794 |
| MCR    | .0002641 | .0000624 | 4.24  | 0.000 | .0001368, .0003915 |
| FreeAltCur| -.0402035 | .0112202 | -3.58 | 0.001 | -.0631182, -.0172887 |
| _cons  | .6289949 | .1193539 | 5.27  | 0.000 | .3852418, .8727481 |

109
Table 5.7: Distribution of MCR

<table>
<thead>
<tr>
<th>Percentiles</th>
<th>Smallest</th>
</tr>
</thead>
<tbody>
<tr>
<td>1%</td>
<td>0</td>
</tr>
<tr>
<td>5%</td>
<td>0</td>
</tr>
<tr>
<td>10%</td>
<td>0</td>
</tr>
<tr>
<td>25%</td>
<td>0</td>
</tr>
<tr>
<td>50%</td>
<td>24</td>
</tr>
<tr>
<td>75%</td>
<td>109</td>
</tr>
<tr>
<td>90%</td>
<td>326</td>
</tr>
<tr>
<td>95%</td>
<td>544</td>
</tr>
<tr>
<td>99%</td>
<td>4338</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Largest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obs</td>
</tr>
<tr>
<td>Sum of Wgt.</td>
</tr>
<tr>
<td>Largest</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Std. Dev.</td>
</tr>
<tr>
<td>Variance</td>
</tr>
<tr>
<td>Skewness</td>
</tr>
<tr>
<td>Kurtosis</td>
</tr>
</tbody>
</table>

Table 5.8: 10 percent Trim of MCR

<table>
<thead>
<tr>
<th>Number of obs</th>
<th>F(6, 31)</th>
<th>Prob &gt; F</th>
<th>R²</th>
<th>AdjR²</th>
<th>Root MSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
<td>10.2</td>
<td>0.0000</td>
<td>0.6637</td>
<td>0.5986</td>
<td>.11745</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Undpri</th>
<th>Coef.</th>
<th>Std.Err.</th>
<th>t</th>
<th>P &gt;</th>
<th>95% Conf. Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSD</td>
<td>.0009997</td>
<td>.0004588</td>
<td>2.18</td>
<td>0.037</td>
<td>-.000064 to .0019354</td>
</tr>
<tr>
<td>MCG</td>
<td>-.0024538</td>
<td>.000964</td>
<td>-2.55</td>
<td>0.016</td>
<td>-.0044199 to -.000477</td>
</tr>
<tr>
<td>Pop</td>
<td>4.75e-07</td>
<td>1.20e-07</td>
<td>3.97</td>
<td>0.000</td>
<td>2.31e-07 to 7.20e-07</td>
</tr>
<tr>
<td>FreqRep</td>
<td>-.0022308</td>
<td>.0009331</td>
<td>-2.39</td>
<td>0.023</td>
<td>-.0041339 to -.0003277</td>
</tr>
<tr>
<td>MCR</td>
<td>.000178</td>
<td>.0001594</td>
<td>1.12</td>
<td>0.273</td>
<td>-.0001471 to .0005032</td>
</tr>
<tr>
<td>FreeAltCur</td>
<td>-.0411324</td>
<td>.0113297</td>
<td>-3.63</td>
<td>0.001</td>
<td>-.0642395 to -.0180254</td>
</tr>
<tr>
<td>cons</td>
<td>.6551501</td>
<td>.1301763</td>
<td>5.03</td>
<td>0.000</td>
<td>.3896538 to .9206465</td>
</tr>
</tbody>
</table>

The kernel density trimming procedure slightly improves the model’s $R^2$ when the PSD variable is tested (from 0.8635 to 0.8645), while $R^2$ for the MCR variable drops from 0.8625 to 0.6637 in the 10 percent trim sample. Moreover, it is evident that the coefficients are stable under a 10 percent sample trim; the coefficients display similar (positive/negative) signs as in Table (5.2), while their magnitudes are also stable in comparison to Table (5.2). The results displayed for PSD and MCR, are indicative of all six independent variables. As such, it is possible to conclude that the model is relatively stable under trimming and that the model is relatively robust.

**Trimmed Least Squares**

Alternatively, the Least Trimmed Squares (LTS), devised by Rousseeuw (1984), allows for trimming at specified levels across all variables simultaneously. This analysis is carried out in Stata, using the robsreg lts function.11 Atkinson &

11Robreg lts was devised by Jann in 2010 and is an independent addition to Stata.
Cheng (1999) account for the process of computing LTS estimates. The coefficients are also relatively stable under the LTS trimming, which is another encouraging sign that the model is relatively robust.\footnote{For example, for 15\% trimming, using least trimmed squares under Stata, we obtain values for $PSD$ ($0.005982$), $MCG$ ($-0.019027$), $Pop$ ($3.03e-07$), $FreqRep$ ($-0.005666$), $MCR$ ($0.002816$) and $FreeAltCur$ ($-0.999836$).}

5.5 Conclusion

It is clear from the econometric analysis that economic, demographic and institutional variables are statistically and economically significant in influencing cross-country variation in levels of IPO underpricing. For example, we find that Minimum Capital Requirement to start a business as a percentage of GNI per capita ($MCR$), a proxy for barriers to entry, is statistically significant, with a positive coefficient. Countries with greater minimum capital requirements are associated with higher IPO underpricing. As we will discuss in detail in Part III, India and China are both economies where licence requirements are ubiquitous and barriers to entry are considerable. Moreover, Private Sector Development ($PSD$), measured as domestic credit extended to the private sector, is also positively correlated with IPO underpricing. As credit is increased to the private sector, stimulating growth, underpricing becomes more pronounced in the financial markets. This may partly reflect the dynamics observed in India and China. Both countries have achieved impressive growth rates in recent years, and they also display significant IPO underpricing. The variable with the third highest coefficient in the model is Freedom to Use Alternative Currencies ($FreeAltCur$). This variable is a measure of the availability of money in the economy. However, it can also be used as a proxy for the openness and efficiency of a country’s financial markets. $FreeAltCur$ is found to be negatively correlated with IPO underpricing. As financial markets become more open and interconnected with the wider global community, we should expect to see improvements in company oversight and higher corporate governance standards. This finding also ties in with the globalisation index analysis, which was carried out in Chapter 4 of the thesis.

To more fully understand the impact and influence of these key factors and variables on Russia, India and China, it is necessary to conduct fieldwork in their financial centres: Moscow, Mumbai and Shanghai. As discussed in Chapter 1, this is consistent with the mixed method approach. The quantitative analysis (Part II) has highlighted some key areas that warrant further investigation, which will be covered in the qualitative analysis (Part III).
Part III

Part III: Qualitative Analysis: Governance, Globalisation, Institutions and Strategy
Chapter 6

The Russian Bear

6.1 Introduction

Following on from the outline of the fieldwork instrumentation in Chapter 1 and the quantitative analysis in Part II of the thesis, Chapter 6 marks the start of Part III of the thesis. Part III, which is a qualitative analysis, builds on and expands the quantitative analysis carried out in Part II (Chapters 3, 4 and 5) of the thesis. As such, Part III brings the mixed method approach, discussed in Chapter 1, full-circle. In particular, we detected market anomalies in the pricing of equity in Russia, India and China in Chapter 2 and Chapter 3, when benchmarked against the UK (London). The econometric model constructed in Chapter 4, proved a good fit on the overall country data set. The analysis and discussion in Chapter 5 presented some key variables that influence global IPO pricing. It is clear that economic, institutional and demographic variables are significant in explaining global IPO pricing. However, the quantitative analysis does not provide a complete picture on a country level. To understand the underlying dynamics governing IPO pricing in Russia, India and China, it is necessary to conduct field work in each country. Chapters 6, 7 and 8 are based on this field research and endeavour to explain the market anomalies found through the statistical and econometric analysis, using London as a benchmark for a mature and efficient market. To summarise, the quantitative analysis (Part II) identified a number of interesting pricing anomalies and the qualitative analysis (Part III) seeks to explain this pricing behaviour on a country level.

Russia first saw attempts to reform its economy during Mikhail Gorbachev’s perestroika programme in the late 1980s. The Union of Soviet Socialist Republics (USSR) was experiencing economic difficulties and perestroika reforms were introduced to stimulate growth and improve living standards. These tentative economic reforms, which included leasing of land to farmers and allowing small-scale private ownership of some businesses, still left the state planning firmly in control and by 1991 it was clear that perestroika had failed. The USSR
was officially dissolved in December that year.\textsuperscript{1} It was clear that significant economic reforms were required and Russia’s journey towards a market economy began in 1991 with the election of Boris Yeltsin as the President of Russia, who implemented Russia’s first economic reforms in January 1992 (Brainerd, 1998). Initially, President Yeltsin’s attempt to implement ambitious and much needed economic reforms to stimulate growth were met with approval by both domestic and foreign experts alike (Gerber & Hout, 1998). However, the ‘shock therapy’ reforms proved catastrophic to the general population. Gavrilova, et al. (2000) observe that the abolition of price controls in 1992, within a still heavily monopolised economy, resulted in significant inflation, which in turn reduced real wages and wiped out almost all private savings. At the same time, between 1992 and 1994, the life expectancy for Russian females and males dropped from 73.8 to 71.2 years and from 62.0 to 57.6 years, respectively. Desai (2005) finds that the 1990s were characterised by the shock therapy economic reforms, significant contraction of the economy, hyperinflation and privatisation as the country moved from a planned economy towards capitalism. Megginson & Netter (2001:33) comment on the severe economic challenges that Russia was facing in the 1990s, moving towards a capitalistic market model:

‘It is very difficult to reach a simple conclusion regarding privatization’s impact in the former Soviet Union in general, and Russia in particular [...] the transition from socialism to capitalism was much more difficult and painful in the former Soviet Union republics than anywhere else in the world, both because these republics were under communist rule the longest and because the transition to capitalism also coincided with dissolution of the Soviet Union. Breaking up any continental scale nation was likely to prove traumatic; breaking up a country that was also an economic system proved doubly so. [...] the contraction in output that occurred in the former Soviet Union after 1991 was far greater than anywhere else–and there is as yet no upturn–making it very difficult to document any kind of relative performance improvement, or to assign causality to any improvement that is found. [...] it seems clear that the former Soviet Union republics—especially Russia—took a decided turn for the worse economically after 1997 [...]’

However, by the year 2000 Russia had reversed the downward trend in GDP per capita after the 1997 crisis and by 2003 it had reached 1997 levels again at a modest $2,976 GDP per capita. The decade, with the exception of 2009,\textsuperscript{2} continued to see steady GDP growth, according to the World Bank.\textsuperscript{3}

Given the relatively recent date of the economic reforms, the Russian financial markets and institutions are still immature and in their development

\textsuperscript{1} Desai (2005).

\textsuperscript{2} The significant drop in GDP in 2009 was a result of the financial crisis and its repercussions, which occurred 2008.

\textsuperscript{3} World Bank (2012a), Data Indicators, GDP per capita (current US$).

114
phase. The Moscow Interbank Currency Exchange (MICEX) was opened in 1992, followed by the Russian Trading System (RTS) in 1995. These two exchanges constituted the main equity markets in Russia and in December 2011 they merged in an endeavour to create a credible Russian alternative to the London Stock Exchange (LSE). This is the current centre of Russian initial public offerings (IPOs).\(^4\) As noted in Chapter 1 (and explored in Chapter 4), the surprisingly modest IPO underpricing of equity in Russia (4.2 percent underpriced, 1999-2006), coupled with a small sample size of 40 companies, gave rise to inquisitiveness. This was amplified when comparing the Russian IPO profile with India and China, which both displayed considerable underpricing and large sample sizes. The reason behind this pricing behaviour is explored in this chapter (with India and China to follow in Chapters 8 and 9). We know from Chapter 5 that Economic, Institutional and Demographic variables influence global IPO underpricing. However, fieldwork is required to more fully grasp the issues at hand and to understand the nuances within the market framework.

Scope of Fieldwork

The fieldwork which forms the basis for this Russia case study was conducted between Friday August 5 and Saturday August 20, 2011, in Moscow. The first formal interview took place on the first Monday morning (August 8); this was followed by an additional 12 formal interviews over the following nine working days. The interviewees were accomplished finance professionals and opinion formers in Moscow. Interviewees had initially agreed to meet for one hour to cover the interview agenda (the minimum time period required to cover all sub-headings), however, as the conversations developed almost all the interviews lasted around two hours.

Table 6.1: Interviewees’ Codes, Status, and Sector

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Code</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Credit Analyst</td>
<td>AR</td>
<td>Russian Investment Bank</td>
</tr>
<tr>
<td>Advisor to the Chairman</td>
<td>BR</td>
<td>Russian Investment Bank</td>
</tr>
<tr>
<td>Strategic Analyst</td>
<td>CR</td>
<td>Russian Private Equity Firm</td>
</tr>
<tr>
<td>Head of Banking</td>
<td>DR</td>
<td>International Investment Bank</td>
</tr>
<tr>
<td>Managing Partner</td>
<td>ER</td>
<td>Big Four Accounting Firm</td>
</tr>
<tr>
<td>Emerging Markets Broker</td>
<td>FR</td>
<td>Russian Brokerage Firm</td>
</tr>
<tr>
<td>Senior Investment Officer</td>
<td>GR</td>
<td>International Organisation</td>
</tr>
<tr>
<td>Head of Client Services</td>
<td>HR</td>
<td>Asset Management Company</td>
</tr>
<tr>
<td>Chief Economist</td>
<td>IR</td>
<td>International Investment Bank</td>
</tr>
<tr>
<td>Deputy Director, Research</td>
<td>JR</td>
<td>Russian Retail Bank</td>
</tr>
<tr>
<td>Chief Economist</td>
<td>KR</td>
<td>Russian Retail Bank</td>
</tr>
<tr>
<td>Finance Professor</td>
<td>LR</td>
<td>Moscow based University</td>
</tr>
<tr>
<td>Chief Economist</td>
<td>MR</td>
<td>International Investment Bank</td>
</tr>
</tbody>
</table>

\(^4\)Weaver (2011).
The interviewees, listed in Table 6.1, were explicitly guaranteed anonymity and they all signed a University of St Andrews’ Participant Consent Form, Anonymous Data, that explained the nature of the research and list their rights as interviewees (see Appendix E). They were, for example, informed that they could terminate the interview at any stage and that they were free to refuse to answer any specific questions. Moreover, there were four additional formal meetings which served to build a more full picture of the country and its culture. After returning to the UK, two more extensive conversations were conducted by telephone with experts on Russia who at the time were not in Moscow.

In this chapter, the analysis carried out and the evidence presented, as in the India and China case studies, is predominantly based on these primary sources and augmented by additional secondary sources.

Chapter Structure

The remainder of this chapter is structured as follows: Section 6.2 examines Russia in the context of globalisation, both from an economic and a social/political perspective. This section makes it clear that, for better or worse, the Russian economy has become increasingly dependent on hydrocarbon exports. Moreover, information flows are actively stifled by the state although the internet remains uncensored in Russia. Section 6.3 looks at corporate governance and its nature and implementation today in Russia. Although corporate governance practises have improved significantly since the 1990s, it was evident that accountability and transparency were still far from Western European standards. Section 6.4 discusses the institutional structure within the country, which was seen to be improving to some extend. For example, the two main stock exchanges in Moscow were only a few months away from merging, which was seen as a positive development. However, as long as the self-interested government interferes in the market processes and directly influences the regulators, it is difficult to see how the institutional structure can develop and mature into a market stabilising force. Section 6.5 evaluates competitive strategy within the Russian financial sectors. With thousands of small opaque private banks in Russia there is talk of future consolidation within the retail banking sector. Notwithstanding this, the Russian Sberbank and VTB are firmly in control of the Russian retail market. Russian banks and firms are strongly represented in both the banking and brokerage sectors, whereas auditing is almost entirely dominated by the Big Four international auditing firms. Russia is still heavily dominated by the state and any company entering Russia will have to take this into account when planning its entry strategy. Finally, conclusions will be drawn on the basis of the evidence presented on Russia in Section 6.6.

The Big Four accounting firms consists of: Deloitte Touche Tohmatsu (Deloitte), Ernst & Young (E&Y), Klynveld Peat Marwick Goerdeler (KPMG) and PricewaterhouseCoopers (PwC).
6.2 Globalisation

This section examines Russia’s interaction with the international community from a number of different angles. We will examine the relative importance of actual economic flows and restrictions, the relative importance of personal contact, information flows and cultural proximity, and political effects on market functions. The globalisation sub-headings and the questions in the semi-structured interviews that form the foundation for this chapter are derived from the KOF Index of Globalization which also forms a part of the explorative analysis carried out in Chapter 4 (Dreher, 2003).

6.2.1 Economic Effects on Market Functions

The 2008 financial crisis was mentioned throughout most interviews as a watershed moment. Capital flight was significant, property prices dropped considerably, many lost their jobs in the financial services in Moscow, foreign retail chains either slowed down their expansion in Russia or withdrew from the market. By 2012, activity in the financial markets have still not fully recovered. Gaddy & Ickes (2010) echo this sentiment, as they state that Russia, from mid-2008 to early 2009, saw a sharper contraction of the economy (in measures including output and stock market values) than almost any other major country. Frankel & Saravelos (2012) note that, measured as GDP change during the period Q2 2008 to Q2 2009 for a 64 country sample, only Macao, Estonia, Ukraine, Latvia and Lithuania performed worse than Russia. All six countries experienced negative growth. In contrast, India and China were at the very top of the best performing countries during this period, with respectively around approximately 5.5 percent and 7.0 percent GDP growth. Gaddy & Ickes attribute the severity of the crisis to Russia’s dependence on oil exports: ‘Russia grew thanks to oil; Russia fell because of oil [...] These recent shocks, positive and negative, are by no means the first and will not be the last.’ Gaddy & Ickes (2010:307).

Figure 6.1: RTS Stock Exchange Index performance vs. London Stock Exchange FTSE 100 between 2007 Q3 and 2010 Q1
Figure 6.1 illustrates the considerable drop in share prices on the RTS Stock Exchange around June 2008, here in the thicker red colour. The London Stock Exchange FTSE 100 (indicated as the thinner grey line) also displays negative growth but with less volatility and less drop in value.

The Relative Importance of Economic Flows
The relative importance of economic flows for Russia is quite straightforward when examining trade flows. Exports of oil and gas constitute around two-thirds of the value of total Russian exports in 2011 and minerals make up another ten percent, according to Ir, the Chief Economist of a large international investment bank. The US Census Bureau (2012) reports that Russia produced 9,674,000 barrels of crude oil per day in 2012 out of a total daily production of 74,043,000 barrels, making Russia the world’s largest producer of crude oil in 2010. So, despite its legendary standing as a highly intellectual probity, based on these statistics, Russia is a natural resource based economy. Russia’s oil rich deposits have given rise to a number of publications questioning whether Russia is moving towards becoming a rentier economy.6 Beblawi (1987: 51) notes that ‘[a] rentier economy is thus an economy where the creation of wealth is centered around a small fraction of the society; the rest of the society is only engaged in the distribution and the utilisation of this wealth’. Estrada & Arilla (2005) concluded that by the mid-2000s the Russia economy was not drifting towards a rentier system. Desai, Freinkman, & Goldberg (2005) and Freinkman & Plekhanov (2009), on the other hand, suggest that there are signs on a regional level which indicate that local Russian governments have taken on rentier characteristics. During the fieldwork stay in Moscow, FR, an Emerging Markets Broker, shared a Citigroup flagship publication that is not disseminated to the wider public (see Appendix N for the full document). In the Citigroup’s (2011:4) ‘The Russian Hunter’, their inaugural strategy publication, they build their equity investment strategy around the notion that Russia has become a borderline rentier economy:

‘[...] Russia is not yet a pure rentier economy, but [...] it is in danger of becoming one, with some of the less appealing aspects of rentier economies. Commodity taxation makes up over half of the federal revenue, rents to the level of over a quarter of GDP are generated by the commodity sector, the economy is highly vulnerable to external price shocks, as we saw in 2008, rent is transferred from the government to the people, and so on.’ Appendix N.

Citigroup define rent rate as the difference between world market prices and extraction costs and continue to note that rent is extracted from three key providers: oil, gas and metals. They conclude, according to their estimates that

total Russian rent is $500bn. This figure is based on the estimate of $650bn is natural resources, with extraction costs estimated at $150bn.

On the other hand, Russia imports mainly manufactured goods as its manufacturing industry suffers from chronic underinvestment and is not competitive on an international scale. Erixon & Dreyer (2010:8) observe that ‘underinvestment in the industrial sector – and the heavy dependence on commodity export revenues – has been displayed with brutal force during the [2008 financial] crisis’.

Foreign direct investments (FDI) have proven elusive in Russia. M_R, a Chief Economist, noted that FDI is a chronic problem, below 1 percent of GDP, even during the so-called “golden years”. They continued to state that the lion share; around 80 to 85 percent, of FDI reported is not transparent. In contrast, in Central and Eastern Europe FDI constitutes 3 to 4 percent of GDP and it is even higher for Kazakhstan at around 8 percent.

The large state-owned investment bank, VTB Capital (2011) has communication material which states that FDI and capital flight official estimates for Russia are skewed for a number of reasons. The fundamental issue is that, “[t]hroughout Russia, Kazakhstan and the Ukraine, private sector companies are very often owned from the outside (e.g., Russians control Russian companies not from Russia itself, but through a chain of intermediate offshore holding vehicles). Even state-owned companies occasionally have an offshore component in their corporate structure” (VTB, 2011:2).

VTB continues to list a number of reasons for the resources of Russian companies to be held offshore:

- It provides the companies with the opportunity to make use of foreign courts for protection of ownership rights, contractual agreements and capital structure flexibility
- It allows for companies to be less transparent and can ‘lower visibility of the real beneficial interests’ (VTB, 2011:2)
- Thirdly, ‘and most trivially, certain offshore jurisdictions provide a better tax climate versus onshore regimes’ (VTB: 2011:2)

As a result, funds that are officially marked as FDI or capital flight, may often in reality be capital that is moved between different legal entities that ultimately come under a Russian based company (although ownership is registered through an offshore account). In this context, most of the interviewees (A_R, B_R, C_R, D_R, E_R, H_R, K_R and L_R) mentioned that Cyprus has become particularly popular with Russian companies as an offshore base. One of the main beneficiaries of bona fide FDI in Russia is the automobile industry, according to the Chief Economist, K_R. Krkoska & Spencer (2008) conclude in an European Bank for Reconstruction and Development (EBRD) report that FDI

---

7As an aside, the third bullet point mentions the term: most trivially. This is of course an interesting choice of words, which would suggest that Russian companies already extensively exercise tax evasion/avoidance in Russia.
has created enough momentum and know-how in the Russian car manufacturing sector to ensure that more capital intensive processes will be attracted to the country over the coming years, provided that announced investments projects are carried out. There have also been some improvements in terms of ownership transparency and the Central Bank is moving in the right direction, according to one Senior Investment Officer, G_R. Banks are now required to publish the names of their beneficiaries on their website - not all comply and there are no consequences for this noncompliance - but the big Russian banks do follow this requirement. In general, the banking sector is much better regulated than other sectors.

Russia is one of the four BRIC countries, which should facilitate its attracting investments from abroad. However, B_R, Senior Advisor to the Chairman of a large Russia investment bank, notes that Russia is a less prominent member of the BRIC grouping. Portfolio investments in Russia are often driven by oil prices, according to another local economist. This observation ties in with those of London interviewees when expressing their views on Russian investment opportunities. As J_U, a London Investment Analyst who has lived and worked in Moscow in the past, noted “[the] smart money goes to China and India”, before adding that the appetite to invest in Europe is currently quite limited.

The Relative Importance of Economic Restrictions

Economic restrictions is an area that should be liberalised with the accession into the World Trade Organisation (WTO) in December 2011. Currently, Russia make use of tariffs to protect domestic industries and there are informal barriers to entry, such as bureaucracy and ad hoc customs rules. There is no “one-stop-shop” for those keen to export into Russia and most find the process needlessly opaque. C_R, a Strategic Analyst in private equity, noted that there are also unofficial restrictions in, especially, the mining sector. Small Canadian and UK companies have encountered problems in the past that seem to have been designed to push out small foreign companies. They are often listed but small in size. These episodes often get reported in annual reports. For example, small firms find that they cannot get their licenses renewed and they are forced to sell to big Russian companies. These problems are often encountered in infrastructure projects and exploration and typically revolve around licences renewals. Chebankova (2010), for example, details the politicisation and conflict of interest that is present in the issuing and management of natural resource licences in Russia.

Moreover, in 2008 Putin imposed strict foreign ownership restrictions on Russia’s ‘strategic companies’. According to G_R, a Senior Investment Officer, this may be the biggest restriction to inflows in Russia and the biggest obstacle to growth. The Federal Antimonopoly Service (FAS) enforces these restrictions

---

8 The acronym ‘BRIC’, which represents Brazil, Russia, India and China, was coined by Jim O’Neill of Goldman Sachs in a seminal 2001 report titled ‘Building Better Global Economic BRICs’.

9 Gati (2008) provides a comprehensive legal overview of the strategic law, which covers 42 types of activity included within 15 broad sectors or industries.
rigorously. For example, banks are classified as strategic due to their use of the SWIFT transfer system (although everyone realises that it was a mistake to classify them as such), since this system is cryptographic and, as such, it is sensitive high-tech equipment. The list of restrictions is extensive and covers banks, natural resources, media and defence companies, amongst others. This is of course in sharp contrast to the UK approach. There, most of the UK interviewees commented upon the openness of the UK. D_U, Global Chief Economist for an international investment bank, encapsulated the sentiment by stating that the UK is famous for selling off its crown jewels to foreigners. On the other hand, 2010 marked somewhat of a reversal in UK openness to foreign takeovers. Patrone (2011:2) analysed the ‘$19 billion hostile-turned-friendly’ 2010 Kraft and Cadbury takeover and finds that it ‘illustrated sound execution of the United Kingdom’s board neutrality regime but tested a nation’s resolve of its underlying policies.’ Patrone (2011:2). However, within months of taking over Cadbury, Kraft announced the closure of a UK plant to the dismay of UK regulators and stakeholders. As a result, which was also noted by A_U, a Chief Economist in London, the Takeover Panel Code Committee published a report in 2010 that gave non-equity stakeholders a greater say in potential takeovers (Patrone, 2011).

6.2.2 Social Effects on Market Functions

Personal contact between Russia and the international community has increased in recent years. In particular, Turkey (chiefly because of no visa requirements) and Egypt are popular for package holidays. London is the destination of choice for wealthy Russians. As A_R, a Senior Credit Analyst, noted, one third of Moscow, one third of St Petersburg and one fifth of other big Russian cities are ‘plugged-in’, meaning fully economically, socially and politically engaged. This has been the case for centuries. It should also be noted that personal contacts are essential in conducting business in Russia. Interestingly, both C_U, Chief European Economist, and F_U, Global head of Mergers & Acquisitions, observed that the (international) culture found in London is very different to the rest of the country. Moreover, H_U, Managing Director, observed that “sitting in London you feel connected to many countries. However, London is not representative of the country as a whole. London may be more like the Netherlands.”

Information is censored in Russia, especially any medium that reaches the wider population. As a result, TV news programmes are seen as listing the policy objectives of the Kremlin and not transmitting actual news. However, the two main business papers (Vedomosti and Kommersant) are seen as quite independent and objective. There are also some minor intellectual news sources that have remained independent of government influence. The Internet is also not censored and is used by mainly one activist (Alexei Navalny) to publicly

---

highlight shortcomings of corporate governance practices.

During an informal conversation with a US educated Human Resource (HR) Audit Manager from one of the Big Four accounting firms in Moscow, they mentioned that their firm sells salary data to other companies. However, they noted that pricing this information is not done in, for example, the UK and US since these countries are considerably more transparent about salaries. As in China and, to a lesser extent, India, information comes at a premium in Russia. Unimpeded information is paramount for financial markets to function efficiently and pricing information out of the market is detrimental to efficiency. In contrast, the UK benefits from a free flow of information and a free press.

Cultural proximity may be gauged by the country’s openness to Western European brands in retailing. Russia saw an upward trend in foreign retailers entering the large Russian cities up until the 2008 crisis. Today, there are some prominent foreign retailers present. According to HR, a Head of Client Services in asset management, McDonalds may be the biggest success story in this context. There were six-hour queues when McDonalds first opened their doors in Moscow in 1991. They have a joint venture with the state and have secured excellent locations and buildings for their restaurants. On the other hand, Ikea was mentioned by the majority of observers as having had a more problematic entry into Russia. Ikea was from the outset extorted by local electricity providers. However, Ikea hired diesel generators to avoid paying bribes to local officials. This became Ikea’s modus operandi as it moved to open more stores in Russia. However, it transpired that the manager that was tasked with hiring the generators allegedly was taking kickbacks from the rental company. The estimated fraud came to $196 million over two years. Ikea sought redress in a local Russian court but the rental company was instead awarded €5 million euros for breach of contract. This incident is somewhat reminiscent of a Russian joke that HR mentioned, with the caveat that this may be happening quite frequently:

“You are tasked with building a big house in Russia. First you go and ask a Turkish contractor for a quote; he wants $100 million. Then you ask a German contractor and he quotes $200 million for the same project. Finally you ask the Russian contractor and he also quotes $200 million. You then ask the Russian: “Why would I want to hire you when I can get the German contractor for the same amount of money and he has great skills and technology available?” The Russian replies: “Because I will hire the Turkish guy, and we split the remaining $100 million between us, 50/50.”

\[12\] Kramer (September 12, 2009) reporting for the New York Times. The Economist Intelligence Unit (January 18, 2011) adds that Ikea had encountered further bribery issues and had dismissed two more managers in relation to giving bribes to local energy officials. The Economist Intelligence Unit suggests that Ikea is doing well financially in Russia but that underlining corruption issues need to be continually addressed by the company.
6.2.3 Political Effects on Market Functions

Russia uses its natural resources as leverage on the international stage. It would like to be seen as a superpower again and is historically suspicious of the motives of the West. \( D_R \), Head of Banking in an investment bank, stated that Russia wants to be among the global elite and thinks that this is a ‘club’ of less than ten countries. Moreover, Russia understands that the only reason it was accepted into the G8 was due to its nuclear power status. It does not like to be part of the G20, as it is considered to be less exclusive. Russia often sides with China, India and some other peripheral countries in international disputes, despite the fact that economically its significant trade partners are Western Europe countries.

The UK itself may be able to identify with this dilemma of allegiance. Most of the UK interviewees mentioned that there is a danger of the UK losing influence on the world stage, as it seems conflicted between working closely with the US or seeking more integration with the European Union. For example, \( I_U \), a Senior European Economist, expressed surprise that the UK does not join forces more often with the rest of the EU, for influence.

6.3 Corporate Governance

This section examines the position of stakeholders in Russia, corporate social responsibility, business ethics, enforcement and control, corporate governance and firm performance. Moreover, it also covers mergers and acquisitions and initial public offerings. Good corporate governance practices are essential in establishing fair IPO valuations and, by extension, ensuring efficient allocation of resources in economies. Issues such as transparency, earnings quality, business ethics and management skills will be important to both investors and stakeholders in the wider community. Chapter 5 established through econometric modelling that the frequency and the level of detail required of interim corporate reports influences IPO underpricing. More stringent reporting requirements were found to reduce underpricing. By including core corporate governance topics in the fieldwork study, it is possible to go behind the figures and build a fuller picture of the underlying causes of market failure. It is for example possible to evaluate earnings quality in Russia, India, China and the UK through the fieldwork.

6.3.1 Stakeholders

Internal Stakeholders

Employees are not normally involved in daily decision making in an average local company and their job prospects are quite static. Russia has what are known as monotowns scattered around the country, often is isolated areas. These are towns with essentially only one (large) industrial employer and they are a legacy
from the planned economy of the former USSR. In these towns and cities where, say, 95 percent are dependent on this one entity, it is difficult to move and it is difficult to obtain a mortgage. Employees cannot afford to lose their jobs, that is, they are in a weak negotiating position. However, the factory needs to keep certain employment levels, otherwise authorities will go after the company. The labour code, which is also a product of the former USSR, is quite good in theory. Manager accountability has improved although it is still a weak area. There is often a very hierarchical ownership structure, with a strong hands-on individual as the owner.

CU observed that “[t]he notion that the company is being run in the interest of the owner, not the employees, is important for the UK”. That shareholders, not the management or the company founder, are the dominant force behind listed companies is a fundamental difference between the UK and Russia. Deakin (2005) questions the primacy of shareholder value in the UK and the US and notes that shareholder primacy originates from norms and culture in these two countries, not from corporate law. He continues to state that:

‘What we are witnessing is a shift in the content of the shareholder value norm, so that it comes to represent the idea that shareholders exercise their powers not as the representatives of the market, but as agents of society as a whole. The corporate governance of the future will be centrally concerned with how this idea is worked out in practice.’ Deakin (2005:16)

More recently, Stout (2011) predicts that the classic notion of shareholder primacy in the US will soon give way to more sophisticated considerations on corporate governance and its objectives. In contrast to these nuanced considerations and mature markets with well developed and tested corporate governance principles, it was the very substantial 1992-1994 privatisation period in Russia that laid the foundation for its structure of corporate ownership and governance, according to Vasilyev (2000). Black, Kraakman & Tarassova’s widely cited paper from 2000 ‘Russian Privatization and Corporate Governance: What Went Wrong?’ supports this conclusion. Black, Kraakman & Tarassova found that the privatisation process of Russian SOEs was rushed through without the necessary well-developed institutional framework to support the process. It formed part of the general shock therapy method to move rapidly away from the old USSR model, however, it left vast country resources open to corruption, manipulation and asset stripping.

External Stakeholders

The lack of legal protection is a concern raised by all the interviewees in Russia. There is a consumer protection agency, which is somewhat effective in the large

---

13 One such monotown is Togliatti. Its population is 720,000 people, with 66,000 workers employed at the AvtoVAZ plant, producing lada cars. Between 2009 and 2012, the AvtoVAZ plant workforce has been reduced from 104,000 to 66,000 employees (Kelly, 2012).
cities. For suppliers and lenders the lack of legal protection, places an extra emphasis on them to carefully select their counterparties. This also extends to bank lending. Russian banks are reluctant to force bankruptcies and to take lenders to court, as often assets will simply be transferred offshore.

In contrast, the UK offers a strong legal framework. Its mature and transparent legal system is widely respected internationally. E_R, a Managing Partner from a Big Four accounting firm, pointed out that, in practise, if people invest into Russia, sale and purchase agreements are almost invariably written under English law structure, they use London courts. Similarly, although from a different perspective, C_U, a Chief European Economist in London, noted that, the UK legal system is expensive but effective: “English law is great for solving business disputes. For example, we currently see two Russian business men fighting it out in the English courts, over stolen funds from Russia...”. The interview took place on November 30, 2011 and at that time Boris Berezovsky and Roman Abramovich were locked in a High Court battle over a £2bn Russian business dispute.¹⁵

Unions have little influence in Russia and official unions are closely associated with the state. Some workers are trying to organise independent unions, including teachers and also coal and other mining unions in some places. Unions are often stronger in foreign companies, for example Ford’s car assembly plant has experienced strikes.

When asked about government influence as an external stakeholder, G_R replied that on a scale from 1 to 10, it would probably be 9.5/10, in a wide sense of the word, taking affiliated people into account. They also added that the influence of the government is growing. There is a long-term plan by President Medvedev to privatise a substantial part of the state companies. However, several interviewees (for example, F_R, an Emerging Markets Broker) predicted that if President Medvedev does not remain in power after the March 2012 election, the implications would be negative for the privatisation plan. As of May 7, 2012, Mr Putin is once again the President of Russia. Whether this will be detrimental to the tentative reform programme instigated by President Medvedev remains to be seen.

### 6.3.2 Corporate Social Responsibility

As discussed in Chapter 2, Andrew Carnegie (the nineteenth century industrialist with strong connections to St Andrews and the surrounding area) was one of the pioneers of what we today know as corporate social responsibility (CSR). By the mid-1950s in the US, the modern perception of CSR had been established in both industry and academia.¹⁶

---

¹⁴The consumer agency is called the ‘Federal Service for Supervision of Consumer Rights Protection and Human Welfare’ and can be found at http://rospotrebnadzor.ru/en/web/en/
¹⁵See e.g. Croft & Binham (2011) reporting for the Financial Times on the outline of the case, on October 2.
¹⁶See e.g., Cochran (2007) on the inception of CSR in industry and Carroll (1999) on the first academic contribution.
CSR is starting to become a factor in Russia. Most interviewees noted that there is a long way to go but that international companies coming into Russia have had a positive influence in this area. Although international companies are leading the way in promoting CSR in Russia, CSR commitments are still maturing in the UK. F_U found that CSR is an increasingly prominent topic in the UK business environment. “It is [m]ore important to talk about CSR than to act upon it. Although talking is leading to more action.” They suggest that brand considerations, image and political acceptability are the driving forces behind CSR in the UK. It has become a “social norm”. They also noted that in terms of action and activities that “companies can be just as cynical as individuals”.

Several Russian interviewees (e.g., C_R, D_R, F_R and L_R) alleged that CSR is also used as a front for asset stripping and bribery in some companies. Large sums of money is allegedly donated to non-transparent charities and opaque associations. D_R, a Head of Banking, stated that “however it’s common knowledge that it’s [CSR] very untransparent and an asset stripping activity”. They further mentioned that a big state owned oil company pays $100s of millions to unknown charities and then the money disappears. Also, private companies pay into charities linked to local government officials.

6.3.3 Business Ethics

Corporate and government scandals are publicised and discussed in Russia when they enter the public domain. In some cases ‘black PR’ may be used to achieve an ulterior objective.\textsuperscript{17} Dyck, Volchkova & Zingales (2008) document that during the period 1999-2002, Hermitage Capital Management lobbied for Anglo-American media coverage in an attempt to address corporate governance issues they uncovered through their investments in Russia.\textsuperscript{18} Dyck, Volchkova & Zingales posit that the Anglo-American press coverage was instrumental in reversing some corporate governance infringement cases and also in spurring Russian regulators into action. A_R, a Senior Credit Analyst, noted that any unethical means used today is basically the old US model: “what Russia is seeing is just like the second half of the twentieth century in the USA, i.e., it’s a normal stage in development. However, more of an issue in the 1990s...”. G_R added that ‘hear-say’ would suggest that all big deals have issues today. They continued to observe that the presidential election is imminent and that: “People think they need to build their fortunes now” and that there is a “no tomorrow approach”. President Medvedev is seen as saying all the right words, but the consensus is that the state is not proactive in reducing unethical behaviour.

The flagrant abuse of power and corruption in Russia today, is in stark contrast to the UK and the US. C_U stated that, “Business Ethics has become a

\textsuperscript{17}Black PR’ is a Russian phenomenon where journalists are paid to discredit adversaries and competitors in the press. See Ledeneva (2006), Chapters 2 and 3, for an extensive explanation and analysis of this phenomenon.

\textsuperscript{18}The below discussion under ‘Institutional Investors’ discusses Hermitage Capital Management dramatic exit from the Russian market.
brand after the crisis” in the UK. Moreover, $H_U$, a Managing Director, added that the UK Bribery Act demonstrates that ethical behaviour is expected globally that it is “not just lip service” in the UK. $E_R$, a Managing Partner with one of the Big Four accounting firms in Russia, explained that if they uncover corruption during due diligence for an US or UK investment/acquisition they will have to terminate the process. They add that underdeveloped corporate governance practices can be overcome but not corruption, due to the US Foreign Corrupt Practices Act, which applies globally to US businesses. The UK has been falling into line with the US on this issue.

6.3.4 Enforcement and Control

There is no real will to implement enforcement and controls in Russian companies, according to $E_R$, a Managing Partner with one of the Big Four international auditor firms. As a result, their company is very careful about who they take on as clients in an effort to stay out of the corrupt environment. $L_R$, a Finance Professor based in Moscow, commented that it is very difficult to be an honest auditor in a very corrupt environment, especially with big state owned companies. $D_R$ noted that audits are well organised, especially in companies that are traded in the West. The Big Four are used for publicly traded entities and although there is an understanding that they can be pushed around to a certain degree by big corporations, they try to be independent. $K_R$, a Chief Economist at a Russian retail bank, added that markets do not pay much attention to audit information, as they feel that audits do not go into depth. They see audits more as a cursory process that does not necessarily provide a certification value.

Notwithstanding this, most interviewees noted a marked improvement in the quality of financial statements. This was especially for companies with international exposure or seeking international finance.

Lack of enforcement is a concern among all the interviewees. $A_R$ observed that if a company is listed internationally then corporate governance standards are followed and there is enforcement of the rules. However, for domestic companies there is either no enforcement or it can easily be overcome.

$G_U$, an Operational Risk Manager in London, found that internal audits are quite reliable in the UK, which is in line with other interviewees. $G_U$ added that the credit crisis and the European regulation on financial services have increased the pressure for good internal corporate governance controls in the UK. Moreover, the UK media is found to have a positive effect on companies as an external corporate governance control mechanism.

6.3.5 Corporate Governance and Firm Performance

Board composition and dynamics are changing in Russia. Traditionally, SOE boards have not been involved in guiding their company strategically or had any other real influence over their company. The role of supervision and strategic steering that is normally ascribed to boards in the UK has not been applied to the Russia SOEs. According to one analyst, $A_R$, the Federal Agency for
State Property Management issue directives that are then “read out loud” by board members. Board positions are often awarded to long serving and loyal government members who are not officially paid for their services. These jobs have been highly sought after and AR stated that state official board members would find ways to ‘monetise’ their influence on the board. In 2011 the government began to replace officials on boards with external independent directors, however they may be independent in name only according to interviewees in Russia. Clover & Buckley (2011) wrote in the Financial Times that, ‘On March 31 he [President Medvedev] issued a decree that cabinet ministers had to vacate board seats they occupied at state companies, eliminating untold privileges and conflicts of interest.’ Chris Weafer, Chief Strategist at UralSib Financial Corporation was reported on June 20 2011, as stating that, ‘Already, there is disappointment that Medvedev’s initiative earlier this year to get rid of eight top government officials on state company boards isn’t producing the promised results because they are being replaced by allies.’

For non-state controlled listed companies there is more openness and they increasingly have international board members in an endeavour to promote good corporate governance.

Corporate boards should act as crucial links between stakeholders and management, mitigating conflict of interest issues. A board provides (or at least should ideally provide) separation of ownership and control (John & Senbet, 1998). It is evident that Russian boards do not in general fulfill this role. They are rather an extension of the founder’s reach or the state. As a result, stakeholder representation on a strategic level is greatly lacking in Russia, which does not inspire confidence in potential investors. In contrast, the UK is entering a new mature phase of its board composition considerations. CU found that there has been a stronger focus over the past five years on diversity and independence of directors. London has a competitive advantage in this area, as there is a great pool of expertise to be found in the City London. Women are currently lagging behind in representation on boards. However, according to HW, this is now changing. They mentioned the ‘30 Percent Club’ as a topical example: the goal is to achieve 30 percent women on the boards of FTSE 100 companies. Notwithstanding this, the UK can draw on some of the most experienced and accomplished finance professionals in the world in the board rooms.

6.3.6 Mergers & Acquisitions

The mergers and acquisitions (M&A) market is quite active. The banking sector consolidation started around 18 to 24 months ago, but the lack of transparency prevents some M&A activity. BR, an Advisor to the Chairman of an investment bank, stated that the market is driven by expansion of international players, especially in the beverage sector. For example, Nestle, Pepsi and Heineken are expanding in Russia. A Russian Chief Economist, MR, noted that, “in the dairy industry for example, Pepsi bought Wim-Bill-Done which has got a 15 to 20

\cite{pronina_meyer_2011}
percent Russian market share. Wim-Bill-Done is an excellent start-up company that had its IPO in 2000. Allegedly the owner realised that his company had reached a critical size and that he would have to deal more closely with the government if the company were to continue to grow. He sold the company to Pepsi as he was not comfortable to work with the state alone."

In contrast to the Russian M&A market, London is not hampered by transparency issues or undue state intervention. On the contrary, the well developed reporting standards and the free flow of information in the UK markets have proven fruitful to the UK financial industry. Speaking in regard to the UK, F_U, a Global Head of Mergers & Acquisitions, noted that London is one of the most active M&A markets in the world. The motivation behind M&As may vary, namely, it may be cheaper to buy than to build, synergies, growth of markets, new products, expansion of profits, increase in executive compensation and “more fun than just running a company - executives get bored!”

In Russia, the state acts as the primary takeover defence, according to A_R. In the UK, on the other hand, there are almost no takeover defences. The UK relies mostly on market forces to regulate M&A activity. Potentially markets can encourage increased company efficiency by the threat of disciplinary takeovers (see Jensen, 1993). F_U suggested that the two most effective (and rather simple methods of) takeover defences in the UK are management not allowing due diligence (as the buyer would need due diligence to obtain finance from the banks) and, secondly, anti-trust issues i.e., management of the targeted company may alert the authorities who may eventually block the deal.

6.3.7 Initial Public Offerings

The primary reason why Russia became a country of interest in Chapter 4 was its abnormal level of average underpricing. Russia, with 4.2 percent average underpricing between 1999 to 2006, was the country out of a sample of 45 countries that registered the lowest initial returns on the first day of trading. This is of course in stark contrast to India (92.7 percent, 1990-2007) and China (164.5 percent, 1999-2005), not to mention the international benchmark of the deepest and most mature markets of the UK (16.8 percent, 1959-2006) and US (16.9 percent, 1960-2007). Once on the ground in Moscow, it became apparent that the primary IPO market had not developed into a credible entity by 2006. F_R commented that the domestic Russian IPO market only started to see activity in earnest by 2007.

Moreover, the econometric model developed and explained in Chapter 5, lend itself well to further observations made during the field trip to Moscow. Interestingly, the private sector development (PSD) variable suggests that economies which are experiencing higher growth, will also see higher underpricing of their IPOs. However, although the Russian economy did experience significant growth during this period (1999 to 2006), its financial markets did not match this growth rate. Since Russia has a natural resource based driven economy, the financial

---

20Keynes (1936) first mentioned the 'animal spirits' that interfere with rational behaviour.
markets have not been prioritied in the past as growth areas. We know from
the econometric model that the otherwise highly statistically significant popu-
lation variable (Pop) does not fit Russia’s profile. We would expect to see, from
the model, that countries with large populations would experience higher levels
of underpricing, in general. However, it may be that the Russian economy’s
unique reliance on hydrocarbons, with less interest in its somewhat dormant
and underdeveloped financial markets during the 1999 to 2006 period, may ex-
plain the discrepancy between the Pop variables fit on Russia, as opposed to the
economies of India and China. FreqRep, a variable representing transparency
and good reporting standards, would suggest that transparency would reduce
underpricing. Russia is a notoriously non-transparent country and the fact that
it registered such low underpricing must again refer back to its uniquely under-
developed and dormant financial markets.

The Russian IPO market has been somewhat dormant in the past few years.
Good quality companies have been lacking. Although Russian companies have
only been allowed to list a maximum of 25 percent abroad, many companies
have been listed fully abroad through offshore holdings. In particular, London
and New York have been popular destinations for Russian IPOs. The Russian
government has removed the IPO cap on listing abroad from 2012.

In Russia it is seen as paramount that the owner stays in control of the
company after it has listed. A_R, for example, observed that it (the issuer)
“can’t be an orphan company”.

F_U, an expert in this area, observed that London is still a world centre for
IPOs. The dormant Russian IPO market is in contrast to the busy and highly
liquid London IPO market, to the extent that Russian companies are seeking
out the London Stock Exchange (LES) to go public. There are very few financial
centres that can offer the liquidity and depth of markets that can be found in
London, according to F_U. Moreover, F_U finds that the traditional reason for
going public, prestige, is now less important. It used to be quite important to
tell your friends that you run a listed company, but this is no longer such an
incentive.

6.4 Institutional Structure

This section examines the role of the state, the regulators and the stock ex-
changes in the financial markets. As discussed in Chapter 5, the econometric
modelling established that counties with higher minimum capital requirements
to start a business (MCG), that is, countries with higher barriers to market en-
try, would display, on average, higher degrees of underpricing. This institutional
variable was the inspiration to expand the qualitative cross-site investigation
into institutional factors as well.
6.4.1 Market Influence by the State

Market regulation continues to be a topical political issue in Russia. Some market participants see the equity market as being proactively regulated, for example, through the merger of the Moscow stock exchanges. Some also stress what they find to be proactive efforts of the Central Bank. On the other hand, some participants see the financial regulations as being more reactive.

6.4.2 Regulatory bodies

The Central Bank, which regulates the banking sector, was granted independence in 1995. Although it is not seen at all as independent, it may nevertheless be the most independent and best regarded of the regulators in Russia. They operate by law and can take information to the police if they seek a prosecution. The regulators are seen as a neutral- to-positive force by the market participants. Although the UK financial regulations are much more developed and mature, most of the UK interview participants also see regulations as being reactive in the UK. EU, an Equity Strategist, stated that the UK is reactive in regulating the markets, as there is an understanding that the market should operate freely, but if something goes wrong the regulators step in. However, IU, a Senior European Economist, warned that regulators are currently reacting to the causes of the 2008 crisis, which may carry a risk of over-regulating the UK markets.

6.4.3 Stock Exchange

It is seen as a positive signal to list in Russia and it brings a degree of transparency. The stock exchanges are quite open to entry, on par with the Alternative Investment Market (AIM) at the London Stock Exchange. CR noted that it is not difficult to list but getting trading volume is difficult.

KR, a Chief Economist, stated that the stock exchanges do, up to a point, share information, but they do not pressure companies to share information. The stock exchanges do release information but the quality is low. KR stated that the stock exchanges have “a very proscribed approach, dictated by the law; the law does not mention anything about the quality of the information - so the exchange does not care”.

All interviewees in Moscow saw the upcoming merger between the two Moscow stock exchanges, RTS and MICEX, as a positive development, on balance.21 They were concerned that it creates another monopoly but they felt it would be outweighed by the added benefits of a simplified financial infrastructure in Moscow.

The London Stock Exchange (LSE) is held in high esteem in London and throughout the world. International companies are keen to list, with the stock exchange offering liquidity (it is possible to enter and exit efficiently), market volume and a strong infrastructure. JU added that the exchange has benefitted

---

21 The merger officially happen on December 19, 2011.
in recent years over the New York Stock Exchange (NYSE) due to less red tape. The Alternative Investment Market (AIM) has also been very successful in terms of attracting Russian companies, as it has less listing requirements than in the States.

6.4.4 Market Maturity

One Russian Chief Economist, I\textsubscript{R}, stated that the Russian equity market is still nascent but moving in the right direction, although insider trading is mentioned as still being a problem. C\textsubscript{R} commented that “it’s an insider market”. The Moscow exchanges are hampered by a one-sided market. A\textsubscript{R} remarked that it is a “one way market: Oil”. This refers to the fact that the Russian equity market is three quarter hydrocarbon related and oil is priced efficiently. They continued by noting that for Russia, “tax reforms [in relation to oil] are more important factor than oil prices, in terms of stock prices”. There are around 15 to 20 liquidly traded companies connected with the oil, gas, metals and minerals industries. Since Moscow is not particularly liquid, London (predominantly) and New York are required for listings to raise large amount of funds. London, on the other hand, is a market maker for many products and is unparalleled in Europe. Globally, it is only matched by the US. Publicly traded equity responds quite well to information on the LSE. However, there are periods where the price is driven away from the fundamental underlying price, according to A\textsubscript{U} and other interviewees. In effect, the London markets are active, deep, liquid, transparent, have sophisticated monitoring systems scanning for abnormal trading trends (potential insider trading), with free movement of information and companies seeking to list from across the world. The Russian financial markets are undoubtedly maturing, but they are still in most respects the opposite paradigm to London.

6.5 Competitive Strategy

This section is inspired by three books on competition by Porter. Porter (1980, 1985) examined firm competition and the framework was extended to countries in Porter’s (1990) *The Competitive Advantage of Nations*. This section seeks to examine the rivalry within the different financial sectors, to understand the driving motivation behind the primary clients and look at the barriers to entry. Market barriers to entry is a key variable in the econometric model constructed in Chapter 5. This examination complements and extends the analysis carried out under the Institutional Structure heading (6.4).

6.5.1 Rivalry

Banking Sectors

The investment bank sector is highly competitive in Russia. Almost all international Houses are in Russia and they are heavily subsidised from other profit
centres abroad, which undercuts and hurts future profit, according to one sen-
ior investment banker. The two dominant local players are VTB Capital, with
around 1000 people on staff and Sberbank Troika, with around 1200 people. In
contrast, Deutsche Bank have only around 150 people in Moscow. International
investment banks tend to open representative offices in Russia with well con-
nected staff. Mostly the work carried out in London, New York and Frankfurt,
but as in many other countries, staff fly in as required.

It is quite common to see teams or individual employees switch employer
over the weekend in Moscow within the investment bank sector. For example,
Renaissance Capital had staff move to Otkritie. Its sales team had three or four
waves of people leaving in 2011.

The retail bank sector is dominated by the two state banks: Sberbank (for-
mer savings bank) and VTB (former trade bank). Sberbank has 40 to 50 per-
cent market share (with 50 percent of retail deposits market) and approximately
20,000 outlets/branches. VTB has a 10 percent market share. Alfa Bank (the
biggest private bank) has approximately 500 outlets/branches and has around 3
to 4 percent of the retail market share. According to K_R, a Chief Economist for
a Russian retail bank, in terms of market share Russia is the country with the
widest gap between its two largest retail players and their other competitors.
Some foreign retail banks have also managed to establish a strong foothold in
Russia. Raiffeisen may be the most successful. It has been in Russia for the
longest among the foreign banks and it may be the biggest one in Russia today.
Citi and Societe Generale can also be seen to be doing well. However, other are
struggling, with HSBC and Barclays now pulling out of Russia.

Further bank consolidations are expected in the future and there are thou-
sands of small non-transparent banks in the country.

Sell side recommendations were mentioned as a conflict of interest issue in
Russia. However, interviewees noted that this is a global problem. It was
mentioned that there is, in reality, no ‘Chinese Wall’ between the sell & buy
side. F_R, an equity broker, also noted that a ‘sell recommendation’ has a
much bigger impact in Russia. Companies call analysts (sometimes daily) who
are personally targeted by the company if they recommend “sell”. Companies
may also try to buy recommendations.

C_U noted that the investment bank industry is a very peculiar sector in
the UK. Although it behaves aggressively, there is little actual competition on
prices. It is based on relationships. I_U, a Senior European Economist, added
that competition is extremely high within the group, some may say that it is
“one big collusion”. Prices/fees are quite similar, with very high entry costs
into the sector. In short, I_U, concluded, it is an oligopoly.

In terms of the retail bank sector, I_U continues to observed that, again,
there is collusion among them and also there is incredibly high entry costs.
HSBC and Santander are currently the stronger banks (in the sense of stronger
balance sheets) that are pushing the others, though with little price difference.

---

22 See, Cohen, Frazzini & Malloy (2010) on an innovative analysis of sell side recommenda-
tions and school ties.
A_U added that there is a very low propensity for households to move bank. It can be seen, from a local perspective, as a natural monopoly.

**Auditor Sector**

Competition is high between the Big Four auditing companies. They are used widely by listed companies in Russia and by Russian companies that are seeking international finance, to the extent that companies will often report three to six months late, due to the lack of auditors (generally, but in particular for the Big Four), and consequently long waiting times. Auditors are now “as common as pocket thieves in the London Metro”, according to A_R. The quality of the actual auditors may have suffered - as they are in high demand and with high turnover - as good auditors are headhunted by their client companies and switch side. An audit manager from one of the Big Four, in an informal setting, also complained that their team was suffering from a lack of international level talent.

Generally speaking the auditors are seen as independent to the audited company. However, as previously stated, they are operating in a difficult and challenging environment where it is believed that the state and large corporations can influence their reports.

Most of the interviewees referred to the much publicised Pricewaterhouse-Coopers (PwC) and Yukos incident where PwC in 2007 withdrew its Yukos audit reports for the period 1995 to 2004, as an example that the government hold sway over auditors. D_R, a Head of Banking in Moscow, stated that PwC changed position due to severe pressure by the government. PwC were under the threat of having the government close all PwC offices in Russia. The Yukos case marked a watershed in Russia’s corporate governance practises, according to K_R. The Yukos court case made it apparent in Russia that the government control the judicial system and that the system can be used to extort money from companies operating in Russia. There may be little doubt that Mikhail Khodorkovski, who controlled Yukos, acquired Russian natural resources at a criminally low price and behaved in an unethical manner but it was the state’s response that greatly concerned interviewees in Russia.

Competition is high between the Big Four auditing companies. C_U, a Chief European Economist, states that auditors cover very complex issues and that a big house is needed to manage big clients. As such, the Big Four are dominant in the UK. D_U, a Global Chief Economist, added that it is a relationship-based business arrangement. That is, banks tend to stay with the same auditors, even if they charge more, since the relationship is more important than the fees. This observation is echoed by the outcome of three Freedom of Information Requests submitted to the Bank of England (see Appendix O). From the replies it is

---

23 Most companies are still comfortable with using PwC as they look at prices. However, for individual taxation, some people feel they will not be protected sufficiently by PwC, according to one Head of Banking, Moscow.

24 See, for example, Black, Kreekman & Tarassova (2000) on some of Mikhail Khodorkovski business practises. See chapter eight in Milhaupt & Pistor (2008) on the renationalisation of Yukos.
evident that ‘the Bank’ employed the same auditor firm/entity for in excess of 85 years continuously.\textsuperscript{25} It would seem that between 1919 and 2006 the only reason that the Bank changed auditors was due to mergers and demergers on the part of the auditors, not due to the Bank seeking to ensure auditor independence:

‘The Bank of England (‘the Bank’) first employed an external auditor in 1919, Deloitte, which became Deloitte Haskins & Sells in 1952. In 1990 the Bank was audited by Coopers & Lybrand Deloitte following a merger between Deloitte Haskins and Sells (UK) and Coopers and Lybrand. In 1993 Coopers & Lybrand were the Bank’s auditors, after Deloitte was dropped from the firm’s name, and in 1998 Coopers & Lybrand merged with Price Waterhouse to become PricewaterhouseCoopers, who were then the Bank’s auditors from 1999 onwards. In 2006, as you are aware, KPMG Audit plc was appointed as the Bank’s external auditors.’ Munro, Bank of England (2012:1), Appendix O.

As evident from the above quote, KPMG won the tender in 2006. It was awarded a contract up to five years in length (which can potentially be extended to a second term).\textsuperscript{26} This would suggest that relationships have historically been valued in this type of client and agent agreement, even with the Bank of England acting as a best practise example.

In seeking legal counsel, the Bank would seem to have been more proactive in ensuring outside advice:

‘[…)] it was the Bank’s practice in 1850 and for many years thereafter to appoint an individual lawyer rather than a law firm as such as the Bank’s ‘attorney and solicitor’. Based on some research we have conducted in the Bank in response to your request, the following individuals held that office from 1850, in some cases the office was held on a joint basis: J Freshfield (1840-57); C Freshfield (1840-70); H Freshfield (1857-77); W D Freshfield (1869-1903); E Freshfield (1869-1918); E H Freshfield (1892-1921); Sir WH Leese (1916-1937). Following the death of Sir William Leese, no successors were formally appointed as the Bank’s ‘Attorney and Solicitor’. The Bank maintained a close connection with the firm of Freshfields after the Second World War, but worked increasingly with an ever-widening range of law firms and barristers, as and when necessary. Since 1992 the Bank has had its own in-house legal department and much of the Bank’s legal work has been handled in-house. During the last 20 years or so the Bank has worked with a vast number of different law firms and external counsel in the UK and overseas in relation to individual transactions, projects or matters.’ Munro, Bank of England (2012:1), Appendix O.

\textsuperscript{25}See Appendix O to consult all three documents.

\textsuperscript{26}See Freedom of Information Request, appendix O.
It is interesting to note that the Bank chose to employ one specific lawyer from 1850 to approximately 1937. During that period the British Empire was a vast and complex entity and the Bank was an integral part of this system. In Davutyan & Parke's (1995) review of the Bank of England between 1890 and 1908, they note that a number of the countries that constituted the British Empire held accounts at the Bank.\textsuperscript{27}

**Brokerage Sector**

Competitiveness is very high with the brokerage sector, to the extent that it is almost a zero margin business. VTB Capital (owned by VTB) and Troika Dialog (owned by Sberbank) are the two biggest players in Russia. Other significant participants are Otkritie, Aton, BCS, Finam, Citi Bank, Meryl Lynch and Goldman Sachs. Renaissance Capital also used to be a major player in Russia but they were badly affected by the 2008 financial crisis (however, they are now strong in Africa).

In the UK, competitiveness in this sector is also very high, with independent agents unable to benefit from cross-selling products to retail clients. Barriers to entry and to stay in business are quite considerable. H, a Managing Director in banking, noted that it is "becoming an arms race in terms of technology" and that they expect competition to decrease as technology becomes a factor, i.e., the leading companies will cement their position through proprietary trading systems.

However, F, a Global Head of Mergers and Acquisitions in the audit sector, suggested that on a corporate brokerage level there may be a strong conflict of interest between some investment institutions and their clients. The institutions have repeat customers that enter into an arrangement of 'cross-selling', in other words, they move shares around between the group. It is very simple and very profitable. Suppose that a client is looking to sell shares. The broker allocate these shares to its regular buyers. The broker does not make much money on this transaction. However, the regular buyers who have been given shares at a significantly discounted price (as opposed to the market price), will move shares around between themselves and use the same broker. This is where the real profit is obtained by the broker. If this happens in the UK, one of the most mature and sophisticatedly- monitored markets in the world, we may reasonably infer that such manipulation may be even more pronounced in Russia, India and China.

### 6.5.2 Customers

**Institutional Investors**

There is one single government pension fund that is pay-as-you-go operating in the market. Domestic banks mostly trade in bonds and they are not allowed

\textsuperscript{27}See, for example, Sayers (1976) classic book on the Bank of England from between 1891 to 1944, for an in-depth analysis of the Bank during that period.
to trade in private equity. In terms of ranking the market participants by size, \( K_R \) observed that foreign institutional investors (for instance, Delta Capital and TPG Capital)\(^ {28} \) make up the largest segment, at least by volume. \( K_R \) and \( M_R \) both noted that these funds are usually characterised by short-term thinking and create volatility in the market. There is a BRIC element (as Russia forms part of the BRIC portfolio) but most of the investments go to the other three countries, according to \( B_R \). Pre-deposits in the clearing house are now required, which should eliminate counter-party risk. This used to be a problem in the Russian market, due to low transaction transparency.

Institutional investors tend to keep a low profile in Russia, with little shareholder activism. Hermitage Capital Management, funded by William Browder, is one of the only examples.\(^ {29} \) The idea behind its approach was simple: Buy shares, obtain minority stake in a company, get board membership, drive up efficiency and, as a result, drive up the share price.\(^ {30} \) The fund transformed $25 million into $4 billion by investing in underperforming Russian companies between 1996 and 2005.\(^ {31} \) However, the company and its founder got into difficulties with the Russian government. \( H_R \), head of client services for an asset management company, stated that Mr Browder ‘made a lot of noise’ to bring companies to the attention of the media, in an endeavour to force the targeted companies to become more transparent. He also took on the very large state-controlled Gazprom company but was then refused a visa to re-enter Russia.\(^ {32} \) Hermitage was then raided. One of his lawyers, Sergei Magnitsky, investigated the raid and allegedly uncovered a $200 million tax refund scheme fraud by Government officials, they were looking to claim back Hermitage’s funds for themselves.\(^ {33} \) The lawyer was arrested and sent to prison where he died before going on trial.

Institutional investors are well represented on the London Stock Exchange (LSE), however, they tend to keep a somewhat low profile. Pension funds and insurance companies dominate and move the market. In contrast to London, pension funds are not dominant in Russia, India or China. In Russia and China they are allowed but they remain small in size, whereas in India they are not allowed to invest in equity. In contrast to the previous high profile of Hermitage in activism, on the LSE, institutional investors have taken a more low key approach to influence companies, according to, \( J_U \), a London equity Analyst.

\( ^{28} \)Delta Capital also jump-started the mortgage industry in Russia.
\( ^{30} \)Gillan & Starks (2000) note that the primary motivation behind shareholder activism has been to pressure management into improving firm performance and, as a result, enhance shareholder value.
\( ^{31} \)Levy (2008).
\( ^{32} \)Gazprom: http://www.gazprom.com/
\( ^{33} \)See, for example, Firestone (2008) on how raids are used in Russia. Firestone suggest that raids in Russia are a sophisticated type of organised crime.
Retail Investors

Retail investors go through brokers and retail banks to invest in the equity market. However, only around 2 percent of the population buy shares and among that group, 10 to 20 percent of their wealth is invested in the financial markets. Russia has a pronounced spending culture, where people like to buy homes, cars and other physical assets, according to interviewees. L. R., a Finance Professor, noted that there may be several reasons why people are mistrustful of the financial markets. Only around 3 percent of the population is active in the market. For example, VTB (in other words, the state) heavily promoted Rosneft’s IPO and used VTB branches to sell these shares. President Putin also promoted this IPO. However, many people lost money on this initiative. Moreover, during the “voucher privatisation” of 1993 by President Yeltsin, people had their funds stolen. This was archived through wages arrays. For example, after wages were not paid for months, CEOs would come and offer a low price to buy their staffs’ vouchers. In the words of Megginson & Netter (2001:23):

‘Although most countries’ actual experience with vouchers has been poor, none has been quite as dismal as Russia’s. Although a variety of factors have played a role, Roman Frydman, Katharina Pistor, and Andrzej Rapaczynski (1996) show that insider control of privatized firms has been by far the most important impediment to effective reform. Initially, the Russian government had high hopes that the “voucher privatisation funds” (VPFs) formed during the initial voucher distributions might be able to overcome the collective action problem inherent in mass privatization programs. Such funds might use their concentrated ownership in privatized firms to force managers to restructure. Though most funds attempted to exercise their “voice” in corporate boardrooms, insider dominance completely blocked their efforts. The VPFs turned instead to their “exit” option and sold shares on the secondary market.’

Black, Kraakman & Tarassova (2000:1802) also lament the organisation and implementation of the 1992 to 1994 privatisation process and conclude that:

‘[a] central lesson from the past decade is that mass privatization offers no escape from that general lesson. A weak government can’t build the institutions that are needed to control self-dealing and support a complex market economy. Yet without that infrastructure, rapid large-firm privatization won’t help the economy much if at all. Initial conditions, especially the quality of institutions, matter more, and privatization matters less, than we thought in the early 1990s.’

This statement ties in with the statistical and econometric analysis in Chapters 4 and 5 of this thesis. It is evident that a well-developed institutional

34 Rosneft: http://www.rosneft.com/
framework is needed in order to promote and support economic growth and market efficiency.

Russian retail investors were also negatively impacted in the 1960s, when the state forced bonds on the population, according to LR. Due to these extreme financial events and crises, retail investors in Russia are generally sceptical of the financial markets. As a result, financial sophistication is still low in Russia and most of the Russian investors that do venture into financial investments are speculators.

Alexei Navalny was mentioned as the only current example of either individual or institutional shareholder activism in Russia. He publishes his ongoing disputes online and has a fund that people can contribute to if they would like to support his work.\textsuperscript{35} JR and LR, for example, mentioned his activities as an example of activism, while for example FR and MR concluded that there was no shareholder activism in Russia at the time of the interviews (2011, August).

Becht, et al. (2009) conclude on the basis of a number of studies that US institutional investors engage infrequently in activism, and, when they do, there is little or no link with firm performance. In contrast, the Hermes UK Focus Fund (HUKFF) which is somewhat similar in its approach to activism as some US hedge funds, is found to have a real impact on returns. Kahan & Rock (2007, cited by Becht, et al. (2009)) state that there are three reasons why hedge funds have great activism potential: fewer regulatory barriers, less political constraints and reduced conflicts of interest. If this is the level of commitment required to make a difference in a company through activism, it may not be surprising that few (if any) successful activists have emerged in recent years in Russia, India or China.

Although financial knowledge is significantly on average higher in the UK than in Russia, India or China, opinion is divided over whether the average UK investor is actually well informed. Financial sophistication may be very high in the UK, according to IU. People speculate a lot on interest rates on their mortgages. Most common is the two year fixed interest rate (the maximum fixed term interest rate available is ten years). It is a signal that they believe that they know where the interest rates are going. However, on the other hand, there is also “spread betting” where bets are place on financial developments.\textsuperscript{36} This is basically a ‘future’. Nine out of ten investors/speculators lose money on this, according to IU. “You are playing with fire as there is potential for unlimited losses”, added IU. Retail activism is limited. Most retail investors do not even go to the AGMs anymore to make their voices heard, noted MU. EU suggested that retail investors are too small to be taken seriously by management and that it is therefore difficult to have an impact.

\textsuperscript{35}Alexei Navalny online blog: http://navalny-en.livejournal.com/

\textsuperscript{36}See for example the website www.capitalspreads.com (one of the websites that specialises in offering spread betting on financial products) for the definition of spread betting.
6.5.3 Suppliers

New companies entering the stock market are mostly owned by the original founder. Free flow is very limited (20 to 25 percent) and the owner keeps most of the outstanding shares to ensure full control of the company. Formally, the issuing companies have everything in place to comply with rules and regulations, but the information released by the companies may be unreliable. One way or another, these companies are usually driven by individuals. Consistently with Russia’s economic and financial profile, the companies seeking to list around the 2007 market activity peak were predominantly from the oil and gas sector.

Transparency is getting better. However, when a company is controlled by one person only, as often is the case, transparency is limited to what they want to share.

As a greater number of foreign entities are seeking to list in London it is becoming increasingly common to see foreign companies that are controlled by a single majority shareholder in the UK. However, suppliers (that is, issuing companies) are waiting in the wings at the moment. IPOs both need a great story and need a good macro climate, according to AU, a Chief Economist. When companies do enter the market in the UK, they are quite transparent (as required by the LSE and the FSA). However, transparency is not enough in itself to satisfy investors. New companies to the market come often come with an inherent uncertainty, there is less historical information, analysts have not followed management for years (they do not know them) and the market will wonder what the motivation is for selling out. The company may also only have two or three years of financial statements. Interestingly, new companies may have underinvested in the past - so exiting owners could drain capital - however the effects may not be easy to see at the point of sale, only becoming apparent at a later stage. Since the IPO process is associated with a high degree of uncertainty and asymmetric information, it corresponds with the econometric model in Chapter 5 that suggests a higher degree of transparency/accountability of the issuer (denoted $FreqRep$ in the model) will reduce IPO underpricing.

6.5.4 Potential entrants

Barriers to entry may be the highest in retail banking as opposed to the investment bank sector. Foreign banks have moved into retail banking to a certain extent, but with mixed success. Some found that the state owned banks were too dominant and exited the market again, e.g., Swedbank and Barclays pulled out. Investment banking is more open and competitive: Citi Bank is strong and Societe Generale is also quite active. BSGV bought Rosbank and OTP Bank is also in the market. There are no legal barriers to entry but, as FR noted, the pie is already divided.

For issuing companies it is an international environment, that is, money raised internationally rather than locally. Life is becoming more like in the West but there is still a long way to go. Russian banks have dominated lending and have started to learn to be more sophisticated and careful. However, they
do still occasionally get a phone call from the government to ‘request’ the rescue of a company. Of course, these requests are in fact orders to take action.

For individual retail investors the market is quite open and the same rules apply to everyone. Private international investors would normally have to invest through a broker, which should be very simple.

UK investors are quite open to foreign entities, with I_U noting that ‘home bias’ can be overcome at the right price; the LSE is full of foreign companies. This is in contrast to Russia, India and China. In Russia, foreign companies could list, but local finance professionals questioned why any foreign company would seek a listing in Russia. In India, direct foreign listings are not allowed but a multinational company could list a subsidiary (e.g., Unilever listed Hindustan Unilever Limited (HUL)).\textsuperscript{37} In China, the Shanghai Stock Exchange is in the process of launching an ‘International Sector’ index. In short, the LSE (London) is open to foreign companies if they are somewhat transparent and meet its minimum requirements. Companies seek out the LSE for its deep and liquid markets, with only the NYSE being able to match London in prestige.

The market is very open to individual retail investors in London. It offers international standards on disclosure, corporate governance and financial statements, it has good liquidity, well-developed and deep markets. Moreover it is safeguarded by sound institutions and investors’ funds are kept separate from company accounts. In the words of J_U, the UK is the “paragon of the free market and free trade, even historically.”

\section*{6.6 Conclusion}

Evidence would suggest that Russia is still facing significant corporate governance and transparency issues. Russia was severely affected by capital flight at the outset of the global financial crisis in 2008 and its financial services industry is still in the recovery phase. One of the key issues raised by interviewees in Moscow is the lack of rule of law in the country, as the courts are not perceived to be effective or fair. The Yukos court case, where Mikhail Khodorkovsky was prosecuted for fraud, was significantly and directly influenced by the state. As a result, it became evident that state officials could use the courts to obtain private benefits. This business climate places an emphasis on the companies operating in Russia to choose their business partners with great care.

There are sign of improvements, including the fact that more independent directors (in name, at least) are gaining seats on boards; CSR is also improving and politicians are promising action. However, as long as Russia can balance its budget through the sale of oil and gas, there may be no real incentive to implement substantial reforms to its institutional framework, be regulatory or judicial.

\footnote{\textsuperscript{37}Unilever: www.unilever.com \newline Hindustan Unilever Limited: www.hul.co.in}
Chapter 7

The Indian Tiger

7.1 Introduction

Following on from the outline of the fieldwork instrumentation in Chapter 1 and the quantitative analysis carried out in Part II of the thesis, Chapter 7 is dedicated to exploring and analysing India in light of the information acquired during the field trip to Mumbai and the preceding quantitative analysis. Moreover, the fieldwork carried out in London serves as an efficient market benchmark. Chapter 7 is the second of the country case studies in Part III of the thesis. Part III, which is a qualitative analysis, complements and furthers the quantitative analysis carried out in Part II (Chapters 3, 4 and 5) of the thesis. This is consistent with the mixed method approach that is discussed in Chapter 1. The China case study follows in Chapter 8, with overall conclusions drawn in Chapter 9.

When India gained independence from British colonial rule in 1947, it was faced with the challenge of establishing an institutional framework that would move India forward economically and socially. In this respect, India inherited some key characteristics from Britain. Some, for example, Weiner (1952), suggest that the British colonial system proved a good training ground for the domestic political classes. However, Adeney & Wyatt (2010) posit that Britain did not seek to actively promote democracy during its rule; to the extent that it would oppress opposition politicians. Nevertheless, it did form the basis of the structure of the Indian parliamentary system and civil service. Furthermore, according to Adeney & Wyatt, it also inspired a preference for weak federal institutions in India. The British colonial practise of ‘divide and rule’, most notably applied in the creation of divisions between religious groups, has had a lasting legacy. Tensions between Muslims and Hindus, for instance, are still very much in evidence in India today.

---

1 It should be noted that the case studies are in a sense independent from each other and they can be read in any other.
3 Adeney & Wyatt (2010).
Another dimension to India is the caste system. As Hardgrave & Kochanek (1999:43) state:

‘And yet, even in a more open stratification system, caste remains a potent political factor in Indian political life. It functions often as a surrogate for class in a society in which class identity is weak.\(^4\) Caste conflict cuts deeply in India’s fragmented society.’

This conclusion correspond with the observation of D\(_I\), a Senior Economist in Mumbai, who suggested that the caste system today is a political tool that is widely applied in Indian politics. It would seem this very Indian phenomenon is another legacy of the British efforts to divide and rule India in the mid-nineteenth century:

After suppressing a widespread civil revolt in northern India during 1857 and 1858, the British established their dominance officially by making Queen Victoria monarch of India. The nineteenth century saw a massive state project undertaken by a small group of British officials to enumerate, classify, and thereby control a quarter of a billion Indians. In this project categories like caste, religious community, and race were variously applied, but two elements are of particular importance: the collection of endogamous groups - castes - ranked in a hierarchical order. This classification was derived from classical Hindu texts, but the census operation succeeded in making it a contemporary reality.\(^5\) They established an official discourse of caste that enabled officials to rule Indian society but that also had a deep impact on the way Indians came to perceive their relations with one another on an all-India basis. Some have argued that the British invented caste, but this seems an exaggeration.\(^6\) Caste society did exist before the colonial period, but the census operations did much to make caste divisions more rigid and to encourage the application of all-India categories. This resulted in the enhanced importance of caste in dealings with the state and led to the emergence of caste associations (sabhas).’ (Van Der Veer, 1994:19)

Another legacy from the colonial period is of course the English language. Today India has both Hindi and English as official languages. English serves as a uniting language within this large and diverse country, with 20 official language groups, 50,000 castes and 500,000 villages, according to Cohen, (2001). Moreover, it has provided India with a competitive advantage in the services industry, be it developing IT software or offering back-office support for global companies.


\(^5\)‘V.S. Naipaul, India: A Wounded Civilization, 18.’

\(^6\)‘Ibid., 21.’
When India became independent it adopted a socialist planned economy to promote future economic growth and social inclusion. It nationalised key industries, built up large (non-efficient) state owned enterprises (SOEs), established protectionism and introduced five-year plans from 1951 and onwards. This approach is not dissimilar to that taken in Russia and China, although private property rights remained in India.\(^7\)

In 1990/91 India experienced an extreme balance of payment (BOP) crisis that in 1991 forced a fundamental paradigm shift of the Indian economic system and introduced a wave of liberalisation that is still evolving today. There were a number of direct factors behind the BOP crisis in the early 1990s but the underlying weakness of the economy was exacerbated during the 1980s. The 1980s saw growth fulfilled by higher government fiscal deficits, increased current account deficits and more external debt. In addition, India’s exchange rate was inflexible and its currency overvalued. These factors combined were sufficient to bring the Indian economy to a tipping point. In 1990, external and internal factors conspired to induce the BOP crisis. Externally, the collapse of the Soviet Union, one of India’s main trading partners, was detrimental to its exports. Moreover, around the same time the Iraq-Kuwait war drove up oil prices significantly. Internally, this was coupled with increased political uncertainty in India, where political infighting had taken priority over the management of the economy and, as a result, market participants’ confidence in the economy was gradually eroded.\(^8\) The International Monetary Fund (IMF) agreed to bail out India in 1991 on the condition that India agreed to substantial financial reforms and liberalisation.\(^9\) However, Rodrik & Subramanian (2004) argue in their important paper on the Indian economy that the early 1980s was the inception of the growth transition that become more pronounced after the reforms in the 1990s. Although India opened the door to, for example, some foreign technology input and some FDI (Suzuki was a prime example of early FDI) around 1985, Rodrik & Subramanian suggest that these initiatives did not qualify as liberalisation, but rather as specific business friendly initiatives. Notwithstanding this, Rodrik & Subramanian posit that the tentative reforms in the 1980s provided India with the strength in the real sector of the economy to overcome the macroeconomic crisis in the early 1990s. Kambhampati & Kattuman (2009) find that the period can be divided into three sub-periods in terms of business growth. Until 1985 larger firms were growing faster, this trend was reversed in the period after 1985 where smaller firms saw higher growth (potentially due to their better positioning in terms of adjusting to the new business climate). However, this relationship was reversed again in the early 1990s, as the major liberalisation agenda was introduced in India. Kambhampati & Kattuman suggest that larger firms may have been in a stronger position to compete in the more volatile environment of the 1990s.

---

\(^7\) See Bhagwati’s (1993) considerations on the evolution of India’s economic reforms.

\(^8\) Virmani, 2001.

\(^9\) The International Monetary Fund (IMF): www.imf.org
**Scope of Fieldwork**

The fieldwork which forms the basis for this India case study was carried out between Sunday October 30 to Saturday November 12, 2011 in Mumbai. The first formal interview took place on the first Monday afternoon (October 31), which was followed by an additional 12 formal interviews over the following nine working days. The interviewees were accomplished finance professionals and opinion formers in Mumbai. Interviewees had initially agreed to meet for one hour to cover the interview agenda (the minimum time period required to cover all sub-headings), however, as the conversations developed, almost all the interviews lasted around two hours.

**Table 7.1: Interviewees’ Codes, Status, and Sector**

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Code</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor of Economics</td>
<td>A_I</td>
<td>Mumbai based University</td>
</tr>
<tr>
<td>Director</td>
<td>B_I</td>
<td>International Organisation</td>
</tr>
<tr>
<td>Managing Director</td>
<td>C_I</td>
<td>International Investment Bank</td>
</tr>
<tr>
<td>Senior Economist</td>
<td>D_I</td>
<td>International Investment Bank</td>
</tr>
<tr>
<td>Research Analyst</td>
<td>E_I</td>
<td>Indian Investment Firm</td>
</tr>
<tr>
<td>Senior Vice President</td>
<td>F_I</td>
<td>Large Indian Corporation</td>
</tr>
<tr>
<td>Director</td>
<td>G_I</td>
<td>Private Equity Firm</td>
</tr>
<tr>
<td>Assistant Adviser</td>
<td>H_I</td>
<td>Financial Regulator</td>
</tr>
<tr>
<td>Associate Vice President</td>
<td>I_I</td>
<td>International Retail Bank</td>
</tr>
<tr>
<td>Director &amp; Chief Economist</td>
<td>J_I</td>
<td>International Investment Bank</td>
</tr>
<tr>
<td>Chief Operating Officer</td>
<td>K_I</td>
<td>International Investment Bank</td>
</tr>
<tr>
<td>General Manager</td>
<td>L_I</td>
<td>Indian Retail Bank</td>
</tr>
<tr>
<td>Professor of Finance</td>
<td>M_I</td>
<td>Mumbai based University</td>
</tr>
</tbody>
</table>

The interviewees, listed in Table 7.1, were explicitly guaranteed anonymity and they all signed a University of St Andrews’ Participant Consent Form, Anonymous Data, that explained the nature of the research and listed their rights as interviewees (see Appendix E). They were, for example, told that they could terminate the interview at any stage and that they were free to refuse to answer any specific questions.

There were four additional formal meetings which served to build a more full picture of the country and its culture. Two afternoons were spent reading Indian banking publications in the corporate library of a large Indian bank, which had kindly offered its hospitality. Lastly, I was also fortunate enough to be given a guided tour of Mumbai, by the brother of a Indian contact, and fellow student, from the University of St Andrews.

In this chapter, the analysis carried out and the evidence presented, as in the China and Russia case studies, is predominantly based on these primary sources and augmented by additional secondary sources.
Chapter Structure

The remainder of this chapter is structured as follows: Section 7.2 examines India in the context of globalisation, both from an economic and a social/political perspective. India is still emerging from its past reliance on autarky, both economically and politically. India has undergone a rapid transition since the early 1990s and yet it is clear that the country still favours a protectionistic approach while seeking to promote growth. Section 7.3 examines corporate governance and its nature and implementation today in India. Although India’s corporate governance practices have been evolving and improving, there is still some way to go before they are on a par with Western European standards. Despite this, they may be the most developed of Russia, China and India. Section 7.4 discusses the institutional structure within the country, which is still significantly influenced by the state. For example, banks and markets are heavily regulated. There are encouraging signs of improvements in this area. For example, the regulators are held in high regard by most market participants and the rise of the National Stock Exchange (NSE) is seen as improving transparency and accountability in the financial markets. Section 7.5 evaluates competitive strategy within the Indian financial sector. Retail banking is dominated by domestic players with extensive branch networks. State Bank of India stands out as the most dominant force in the Indian retail banking sector. While the financial sectors in both Russia and China (and most certainly in the UK), to some extent is managed by foreign talent, this is not the case in India. However, many finance professionals are trained in the US and the UK. Finally, conclusions will be drawn on the basis of the evidence presented on India in Section 7.6.

7.2 Globalisation

This section examines India’s interaction with the international community from a number of different angles. It looks at the relative importance of economic flows and restrictions; the relative importance of personal contact, information flows and cultural proximity; and political effects on market functions. The globalisation sub-headings and the questions in the semi-structured interview that form the foundation for this chapter, are derived from the KOF Index of Globalization which also form a part of the explorative analysis carried out in Chapter 4 (Dreher, 2003).

7.2.1 Economic Effects on Market Functions

In response to the IMF’s demands for economic liberalisation in India in return for bailing out the country during the BOP crisis, India chose a decisively gradualist approach to its economic reforms and liberalisation which is evident today. Ahluwalia (2003) warned that although India had made significant progress in reforming its economic policies, it was too early to conclude whether the changes were enough to secure the future growth target of 8 percent. Ahluwalia high-
lighted that Indian fiscal reforms were especially needed. Today, it is clear that India is struggling to cement its high growth trajectory. India’s growth rate dropped to 5.3 percent in Q1 2012, down from 9.2 percent in Q1 2011. Since the current government (the Congress Party) was elected to a second term in office in 2009, it has been unable to pass any new substantial policy reforms, due to a series of public corruption scandals and a fragile government coalition. To secure medium-term growth, an HSBC research note finds that substantial Indian supply-side reforms are required.\(^\text{10}\)

The Relative Importance of Economic Flows

Indian economic flows have increased significantly since the early 1990s. Indeed, the prior four decades had been characterised by autarky and interventionism.\(^\text{11}\)

‘Even though India today can still be considered a heavily protected economy on many accounts, progressive liberalization has produced remarkable results. The country’s openness to international trade has more than trebled since the late 1980s and its economy has been expanding at an astounding pace, second only to China’s, who embarked on reforms earlier and more incisively so.’\(^\text{12}\)

India experienced a 31 percent drop in inwards FDI flow in 2010 from the previous year. Still, the 2010 FDI inflow still represent a 6.5 fold increased over the annual average amount of FDI inflows between 1996 and 2004.\(^\text{13}\) The recent drop in FDI was attributed to a deterioration of the macroeconomic climate, with concerns over a high current account deficit and inflation, in addition to the fact that the approvals of large FDI projects, including the government’s scheme to invest $1.5 trillion in infrastructure from 2007 to 2017, were being delayed.\(^\text{14}\) According to the Assistant Advisor with the India financial regulators, H, India has historically been running current account deficits. India is also a considerable net importer of crude oil, which is partly reflected in the current account deficits.

The Relative Importance of Economic Restrictions

Economic and financial restrictions are still a major factor in many aspects of the India economy, despite the ongoing concerted effort to liberalise India’s rules and regulations. For example, A, a Professor of Economics, noted that tariffs and taxes are still used in the manufacturing sector. Licences and quotas are renewed every 24 months for capital goods and every 18 months for raw materials and consumer goods, for import and export, by the Directorate General of

\(^{10}\)Chalmers, 2012.
\(^{11}\)Desai, 1999.
Foreign Trade. Moreover, infant industries policies are still in place to shield emerging industries from international competition.

A Senior Economist with an international investment bank, D, observed that foreigners cannot invest directly in Indian equity. However, from 2011 Indian mutual funds have been allowed to sell their products abroad. Moreover, there are no restrictions on foreign institutional investor (FII) portfolio flows. But there are sectorial caps on foreign participation. In particular, there is a 74 percent foreign ownership cap in banking and individuals can hold a maximum of 5 percent. Share holding rights differ between international and local investors, with restricted foreign holder rights. A Director with a private equity firm, G, added that there are 26 percent sectorial foreign ownership caps in the media and airline sectors, which are consider strategic. The insurance industry is also capped at 26 percent foreign ownership participation, which Warren Buffett stated as a decisive factor in not investing in the industry.

In late 2011 and early 2012 India’s very large retail market was somewhat liberalised with a view to attract more international players. Research analyst, E, stated that although international capital and expertise is needed in the Indian retail sector, allowing foreign competition is a sensitive political issue. Reforms that allow multi-brands (e.g. Tesco and Walmart) to establish stores in India were passed with a number of conditions:

- The foreign entity is required to have a local (minority) JV partner.
- The foreign entity is required to invest in infrastructure.
- The foreign entity is allowed only to establish stores in cities with excess of one million inhabitants.

Global supermarket chains expressed an interests in this development but they are aware that many obstacles are facing them in India, including political opposition. Consequently, they may choose to expand through their already existing partnerships with local companies.

Single-brand stores (e.g., Marks & Spencer and Ikea) are now allowed to be fully foreign owned in India, with the requirement that the company source 30 percent of its products locally.

As it stands, according to an associate vice president, I, more branded goods are sold to Indians abroad than in India.

The protectionistic nature of India’s trade framework is in clear contrast to the UK’s openness in both trade and in services, notably financial products and

---

15 Directorate General of Foreign Trade: www.dgft.gov.in
18 Bloomberg, 2011.
19 Multibrands are stores that sell several different brands under their roof. A classic example would be a supermarket e.g., Tesco. Singlebrands are stores that are dedicated to only sell a single brand, such as, a Nike store or Ikea.
20 The Economist, 2011.
expertise. D_U, a Global Chief Economist, stated that the UK government’s policy on QinetiQ (the British defence technology company) illustrates how open the UK is to foreign businesses. In early 2003 the UK government sold 33.8 percent of QinetiQ to the Carlyle Group, a US private equity firm.\textsuperscript{22}

### 7.2.2 Social Effects on Market Functions

Interviewees note that since the early 2000s India has become especially outward-looking in terms of tourism. However, as Managing Director, C_I, highlighted, India still represents a somewhat untapped potential for international tourism. It needs to invest a lot in tourist infrastructure to capitalise on its potential and attract tourists. There is great scope for growth, as India has abundant scenic beauty, beaches, important historical and religious sites. Moreover, health tourism (medical procedures and yoga) is another strand of tourism that could entice many more international travellers to visit India.\textsuperscript{23}

The foreign population in India is still negligible according to a director with an international governmental organisation, B_I. When an international company seeks to establish a presence in India for trade purposes, it sends out one or two people from the parent company to India. They in turn hire locals and handover the responsibility to them when the business is up and running. This is also reflected in the financial sector, where all the interviewees and contracts during the fieldwork visit were Indian. In contrast, J_U, an Analyst with a large international investment bank in London, noted that almost all their colleagues were European and Americans.

Print media is still strong in India. The Internet is popular with the younger urban generations, but 70 percent of the population is based in rural areas, where radio is a strong source of news and entertainment. The flow of information in India has increased dramatically since the early 1990s. A General Manager with an Indian retail bank, reminisced that around 1991 he would have to wait up to three hours to place a phone call to another local state. Moreover, the media was government controlled at the time. It become liberalised in the early 1990s and by the late 1990s it had attracted significant private involvement. One Senior Economist, D_I, observed that today there is very high competition in all 20 local languages. Bloomberg, CNBC, STAR TV (Murdoch owned) and local channels all compete in the market place.

As the media is now much less restricted in India, there are currently a significant number of political and corporate corruption scandals being widely published (including, but not limited to the 2G Telecoms licences, the ‘cash for votes’ scandal, Commonwealth Games financial irregularities, illegal mining involving politicians and finally P.J. Thomas, the anti-corruption watchdog, was forced to resign in 2010 as he himself faced corruption allegations). As several interviewees noted, it is a healthy sign that these issues are coming to the

\textsuperscript{22}See James, Cox & Rigby (2005) for a case study analysis on the national defence implications of the UK government’s part-privatisation of QinetiQ.

\textsuperscript{23}See Chinai & Goswami (2007), a World Health Organization note, on the challenges of channelling India’s benefits of health tourism into the care for local people.
surface and being dealt with publicly. The Right to Information Act of 2005, where public authorities are required to release information requested by the public within 30 days, has been widely praised for improving accountability and transparency in India. The proposed Lokpal Bill (anti-corruption law) is also seen as a significant tool to mitigate corruption and it has been widely discussed in the media.

However, the government is still involved in controlling and managing the flow of news and information in India. According to Reporters Without Borders (RwB), Press Freedom Index 2011-2012, India is ranked number 131st (Russia is number 142th and China is ranked 174th). RwB’s major concerns were that

‘[…j]ournalists were exposed to violence stemming from the persistent conflicts in the states of Chhattisgarh and Jammu and Kashmir. The threat from mafia groups operating in the main cities of the country also contributed to self-censorship. However, the authorities were no better. In May, they unveiled the “Information Technology Rules 2011,” which have dangerous implications for online freedom of expression. Foreign reporters saw their visa requests turned down or were pressured to provide positive coverage.’

In contrast, the UK is placed 28th in the world ranking, reflecting its open approach to the media. The US is ranked 47th in the 2011-2012 index. This is 27 places down from its 2010-2011 ranking. The reason for the US’s steep decline in the rankings was explained to be due to the arrests of journalists covering the Occupy Wall Street protests.

Citing terrorism concerns, the Indian government (Department of Telecommunications) is looking to monitor communication from Nokia phones and the BlackBerry Messenger system. In February 2012, the Economic Times reported that BlackBerry has agreed to place its servers in Mumbai following intense pressure from the government to provide a mechanism for lawful interception of its messenger services and Nokia has been requested to follow BlackBerry’s example.

Information generally flows freely in the UK. A_U has observed a proliferation of blogs and sites in recent years and believes that the “brand” has become vital in today’s market place. The brand is used to indicate that you can trust the information being transmitted. For the UK, the BBC is that brand. Chief European Economist, C_U, for an international investment bank, continued to add that the BBC offers both localisation (“evening news about cats stuck in trees”) and globalisation (News 24). They also note that the UK has five good international newspapers and the US has two or three good international newspapers. Television is still dominant across the board, but the Internet is playing an increasingly important role in disseminating information in the UK.

---

27Economic Times, the (2012a).
28BBC: British Broadcasting Company.
as a whole. It suggested that today there is no monopoly on forming opinions in the UK.

Cultural proximity is here measured as the country’s openness to Western European brands in retailing. Western brands are not seen widely in the Indian urban areas, as the retail sector is still quite restrictive of international entrance. The Indian retail sector is uniquely Indian and dominated by small independent shops. Notwithstanding this, McDonalds is very popular in urban areas. It has adapted an Indian approach and does not serve beef. Starbucks and some other food chains are also starting to emerge on the Indian scene. However, the infrastructure is a big challenge in India and there is high degree of variance in standards of living between rural and urban centres. Interestingly, as an Indian Finance Professor, MI, notes, sports may be the key to cultural proximity for India. Cricket is incredibly popular in India.

7.2.3 Political Effects on Market Functions

Director and Chief Economist, JI, noted that India was part of the Soviet group until the early 1990s. Although India was not communist, India was clearly left of centre. It is still at the centre or left of centre today, but is much more open to the West. JI continued to state that India’s mistrusted neighbour, Pakistan, is today basically a dictatorship. However, the West may prefer to deal with Pakistan politically as it is only one person versus “the noisy democracy of India”.

“India has arrived in the global arena”, according to DI. It wants to be a global power and has with rising aspirations. It is still a young domestic demand driven economy, with stable growth. Militarily, India is strong, “due to the hostile environment”, and it was the largest defence importer in the world in 2011. In contrast to the tension around the 1997 nuclear tests, it now has a nuclear treaty with the US. Moreover, it is a G20 member, with keen aspirations to secure a permanent seat on the UN Security Council. Cooper & Fues (2008:298) note that India is playing catch up with China on the world stage:

‘Whereas China has enjoyed the comfortable status as a UN insider India has remained an aspirant and frustrated outsider. Given this uncomfortable standing the prime focus of India’s foreign policy elites has turned toward gaining a permanent seat in the Security Council. For it is only by this measure of success that the ascendancy of India can be judged. In other words, “The big prize in India’s quest for a larger role in global governance is a permanent seat on the UN Security Council”’ (Schaffer & Mitra, 2005, p. 14).’

29Patel & Bhattacharya (2010) chart the (lack of) developments of the Indian infrastructure over recent years and conclude the political will to promote the infrastructure sector is lacking. Davis et al (2008), on a microlevel, find that low-income households in India are open to invest in improved water supplies and sanitation services if they are given access to microlending.

India is today a net lender to the IMF. Indeed, it controls the 9th largest foreign reserves in the world, with $294,846.00 million in foreign reserves. Russia, number four in the world ranking, holds $524,370.07 million in foreign reserves, due to its natural resource exports. However, by far the largest reserves are held by China, with $3,236,000.00 in total due to its successful objective of stimulating domestic growth through exporting manufactured goods. The UK holds a total of $130,163.00 in foreign reserves, placing it as number 19th on the world ranking.\textsuperscript{31} Despite India’s large foreign currency reserves, the Indian economy is still somewhat closed to foreign interaction, which is in contrast to the UK model. The UK is keen to convey that it is open for business, according to several interviewees, to the extent that the Foreign Office is diverting resources to promote the UK on the international business scene.

7.3 Corporate Governance

This section examines the position of stakeholders in India, corporate social responsibility, business ethics, enforcement and control, corporate governance and firm performance. Moreover, it also covers mergers and acquisitions and initial public offerings. Good corporate governance practices are essential in establishing fair IPO valuations, and by extension, ensuring efficient allocation of resources in economies. Issues such as transparency, earnings quality, business ethics and management skills will be important to both investors and stakeholders in the wider community. Chapter 5 established through econometric modelling that the frequency and the level of detail required of interim corporate reports influence IPO underpricing. More stringent reporting requirements were found to reduce underpricing. By including core corporate governance topics in the fieldwork study, it is possible to go behind the figures and build a more full picture of the underlying causes of market failure. It is, for example, possible to evaluate earnings quality in Russia, India, China and the UK through the fieldwork carried out in this thesis.

7.3.1 Stakeholders

Director & Chief Economist, J, noted that India used to worry about Western corporate governance practices entering India when it first started to open up in the 1990s. The practices were seen as capitalistic and Western, as J said, “India is India”. However, they realised that many corporate governance standards had already been implemented, although there are still challenges in dealing with corruption and extortion. Chakrabarti, Megginson & Yadav (2008), in an Indian corporate governance analysis, find that Clause 49 (Sarbanes-Oxley Act inspired)\textsuperscript{32}, which was introduced in 2001 by the Securities Exchange Board


\textsuperscript{32}See Romano (2005), among others, for a critical review of the Sarbanes-Oxley Act.
of India (SEBI), significantly raised the standards expected and required of Indian companies:

‘The key mandatory features of Clause 49 regulations deal with the following: (1) composition of the board of directors; (2) the composition and functioning of the audit committee; (3) governance and disclosures regarding subsidiary companies; (4) disclosures by the company; (4) CEO/CFO certification of financial results; and (5) reporting on corporate governance as part of the annual report.

The composition and proper functioning of the board of directors was one of the key areas of focus. Clause 49 stipulates that non-executive members should comprise at least half of a board of directors. It defines an “independent” director and requires that independent directors comprise at least half of a board of directors if the chairperson is an executive director and at least a third if the chairperson is a non-executive director. It also lays down rules regarding compensation of board members, sets caps on committee memberships and chairmanships, specifies the minimum number and frequency of board meetings, and mandates certain disclosures for board members.

Clause 49 also pays special attention to the composition and functioning of the audit committee, requiring at least three members on it, with an independent chair and made up two-thirds of independent directors, including at least one “financially literate” person. The Clause also spells out the role and powers of the audit committee and specifies the minimum number and frequency of the committee meetings.

With regard to “material” non-listed subsidiary companies, Clause 49 requires that at least one independent director of the holding company serve on the board of the subsidiary. The audit committee of the holding company should review the subsidiary’s financial statements, particularly its investment plans. The minutes of the subsidiary’s board meetings should be presented at the board meeting of the holding company, and the board members of the latter should be made aware of all “significant” transactions—those likely to exceed in value 10% of the total revenues or assets of the subsidiary—entered into by the subsidiary.’ Chakrabarti, Megginson & Yadav (2008:64,65)

These requirements are undoubtedly a step in the right direction. When meeting with Gt, a private equity Director, they also pointed out that one third of board members in listed companies are required to be independent. However, Gt continued by noting that they may in fact be independent in name only.

Employees are generally not involved in daily decisions. However, with the right skills there are good career prospects in the private sector in particular.

33Securities Exchange Board of India (SEBI); www.sebi.gov.in
The private sector also tends to pay higher salaries. The public sector is seen as potentially offering great opportunities with the same institution. It rotates people and jobs are for life, noted Hf.

The public sector has widely implemented a government policy that discriminate positively in relation to the caste system.34 Certain castes are recruited into the government system in order to promote equality.35 The public sector has entry and mid-level quotas for minorities and castes. This initiative was praised by Hf, who saw it as being quite effective in promoting equality. However, the private sector was very much against this initiative when it was first discussed and it only applies to the public sector. As noted by Chief Operating Officer, Kf, the private sector believes in “equal opportunities”, although from a Western perspective, this choice of words may be counter intuitive.

Management accountability seems to be increasing, both in the private and public sectors. According to If, an Associate Vice President in banking, the public sector has improved greatly, with a corresponding increase in the level of service provided. However, nepotism, bribery and loopholes are still major issues.

Space between ownership and management has been reduced in some companies. However, for some listed family companies, promoters act as owners, although it is now the shareholders that own the company.36

The Indian judiciary system is overstretched but it might be improving. There is a considerable backlog of cases and the process is slow (a large number of frivolous cases may have contributed to the current inertia). It has also been suggested that corruption is a problem within the system. Jf observed that there is a significant salary gulf between being a lawyer and a judge in India. A judge is paid approximately $24,000 to $48,000 annually, whereas the average successful lawyer is paid around $500,000 per year. Once a lawyer accepts a position as a judge, they are not allowed to return to practise law later. Jf continued that the UK system compensate judges in other ways, for instance the award of knighthoods. This is not the case in India.

Unions are mostly active in manufacturing, in particular in the automobile sector, where the Maruti Suzuki joint venture (JV) production has been hit by strikes and unrest.37 Unions are also active in public sector banks. Similarly, in the UK, union activity is centred within certain industries, although they have steadily lost influence over the past 40 years. As a collective force in the private sector it is extinct, according to Cu, a Chief European Economist. Unions are still in present in the public sector and former privatised companies, where they are rent seeking. Au, a Chief Economist, noted that they have seen evidence that some companies will not buy, or invest in, companies that are unionised

34See e.g. Dumont’s (1980) seminal work on the Indian caste system and, more recently, Dirks (2001) among many publications dedicated to this evocative topic.
35See Bassett-Jones (2005) and Liff (1999) on discussions on diversity and equal opportunities in the workplace.
36‘Promoters’ is the Indian terms for ‘founders’. See Fama (1980), Fama & Jensen (1983a) and Jensen & Mecklin (1976) on agency considerations.
i.e., they divert funds away from those entities. Nevertheless, according to I_U, a Senior European Economist, although unions are still somewhat strong in transport (airlines/ports/tube/rail) there has been a muted response to the severe austerity measures.

C_I, a Managing Director, mentions that the government should leave much more to private initiative, but stresses that it is nothing like China in terms of government influence.

**7.3.2 Corporate Social Responsibility**

The Ministry of Heavy Industries and Public Enterprises has made it mandatory for public sector industries to donate 5 percent of their profits to CSR.\(^{38}\) The private sector is also encouraged to follow suit.\(^ {39}\) This proactive approach is not entirely unlike the UK's CSR environment. As F_U, a Global Head of Mergers & Acquisitions for a Big Four accounting firm, observed, there is both political and social pressure in the UK on companies to implement CSR initiatives.

CRS is rising in importance in India; parallel to greater integration with the world, standards have improved. Family owned businesses are looking to establish a better corporate profile through CSR and they focus more on the environment and employee satisfaction. Some interviewees also note that CSR has become a PR tool (e.g., C_I and F_I), whereas G_I, a Director in private equity, stated that for many people it is still “hand-to-mouth living, [they] don't care about trees...”

**7.3.3 Business Ethics**

Both corporate and government scandals are discussed publicly in India, as is the case in the UK. The 2007 International Business Ethics Index (Tsalikis, Seaton, Li, 2008) find that India is ranked below China in ethical business conduct. India faces significant challenges in reducing the corruption that seem to have been ingrained into the fabric of Indian society, according to Chakraborty (1997, 1529):

'Since the 1950s however, with the launching of the era of state-planned and controlled economic development, things seem to have been going from bad to worse – though usually below the surface. This cumulative ethical depression began to break loose as an ethical cyclone with economic liberalization adopted by India in 1991. This storm has been exposing the supportive role of the “politics-bureaucracy” alliance in fostering and feeding upon economic terrorism of various kinds. The neutrality of bureaucracy has been tampered rather heavily since the mid-seventies by the political masters.'

---

\(^{38}\) The Ministry of Heavy Industries and Public Enterprises: www.dhi.nic.in

\(^{39}\) Carroll (1999) and Garriga & Mele (2004) both provide the reader with a good overview of some of the core areas within CSR.
The highest profile issue in recent memory is the ongoing second-generation spectrum licences scandal, where 2G mobile licences were sold at a significantly discounted price in an non-transparent process, Lamont (2011). There are significant issues of corruption and bribery in India. However, the government and the judiciary is seen as being proactive in reducing this behaviour. The Indian government announced in May 2012 that as of January 31 2012, the number of Central Bureau of Investigation (CBI) corruption cases pending trial was 7,172. As a result, 70 government sponsored special courts have been set up across the country, with 62 already functioning. The Financial Times highlight Mr Vinod Rai, India’s Comptroller and Auditor-General since January 2008, as one of the leading figures in India’s fight against poor business ethics.

7.3.4 Enforcement and Control

Audits are generally seen as reliable in India, with improving standards. Checks and balances are in place, “but with some window dressing going on”, according to D1, a Senior Economist. However, analysts are aware that this is happening and can see past the window dressing. The Big Four have a good reputation in India but there are also other local firms there are well regarded. The Institute of Chartered Accountants of India (ICAI) is the regulatory body for financial audits and accountancy in India. Moreover, the Comptroller and Auditor General of India (CAG) has the power to institute special audit but only if there has been a complaint or if there is a reasonable suspicion that there may be accounting irregularities. Rules and regulations are seen as being quite strong and as businesses move up in scale this is strengthened.

There has been one large accounting scandal in India, where Satyam Computer Services Ltd in 2009 was accused of accounting fraud (also known as India’s Enron scandal, according to Bloomberg (2009)). PwC was the auditor for this company, a fact that was mentioned by most of the interviewees. In contrast, the UK has not seen a US Enron-esque scandal, which DU, a Global Chief Economist, suggests may indicate that the audit functions are quite well implemented in the UK (although they add that it may be a question of luck that the UK has avoided such a scandal until now).

The quality of Indian financial statements are improving, especially for the larger companies, but there may still be grounds to be sceptical about the quality, according to G1, Director in private equity. Media scrutiny is somewhat effective in this regard and the Income Tax Department is seen as very active.

Enforcement is happening but resolution of issues can take a long time, especially through the legal system. The Securities and Exchange Board of

---

40 Central Bureau of Investigation (CBI): www.cbi.nic.in
42 Ibid.
43 The Institute of Chartered Accountants of India (ICAI): www.icai.org
44 Comptroller and Auditor General of India (CAG): www.cag.gov.in
45 See Atesci et al (2010) for a case study analysis of the Satyam Computer Services scandal.
India (SEBI) is seen as a strong regulator that side with investors. It also provides investor forums and training classes. Moreover, the Reserve Bank of India (RBI) is also perceived as a competent regulator.\footnote{Reserve Bank of India (RBI): www.rbi.org.in}

### 7.3.5 Corporate Governance and Firm Performance

Indian companies are becoming proactive in improving this area as more foreign investors are starting to focus on India. Moreover, Clause 49, discussed under Stakeholders (Subsection 7.3.1), has placed more impetus on companies to promote transparency and good corporate practices. Companies are keen to have prominent people on their boards for credibility. However, now non-executive directors are also arrested when fraud is detected and, as a result, they are careful about lending their names to companies. In contrast, A$_U$, a Chief Economist, observed that many people sits on boards in the UK due to the fact that they are motivated by the compensation package. However, for private equity, senior members will have their own money invested and there is a real commitment. Others will not have this dedication, there is no incentive to exercise due/proper oversight.

### 7.3.6 Mergers & Acquisitions

There were more M&As in 2008 than 2010, as the industry did not think that it would be such a severe/long-lasting downturn in India. They are now often announced in India, but many fall through due to the current market sentiment. Mergers are happening in the banking industry for example, as RBI is seeking to consolidate the market. Size has become important in India, as they seek to compete with very large Chinese companies and factories. Takeover defences are not common, deals are mostly made in agreement. Moreover, the banks and the government do not like hostile takeovers, which in turn influences the market.

Acquisitions are still quite popular. They are mostly cross-border activities that began in earnest around 2005. According to the United Nations (see Table 1), some of the largest cross-border M&As between South-East Asia and developed countries have been Indian in recent years.
Table 7.2: Selected M&As undertaken by firms from South, East and South-East Asia in developed countries, 2007 - 2011

<table>
<thead>
<tr>
<th>Acquiring Company</th>
<th>Target Company</th>
<th>Industry</th>
<th>Value ($ million)</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tata Steel (India)</td>
<td>Corus Group (United Kingdom)</td>
<td>Steel</td>
<td>11,791</td>
<td>2007</td>
</tr>
<tr>
<td>Hindalco Industries (India)</td>
<td>Novels Inc (United States)</td>
<td>Aluminium</td>
<td>5,789</td>
<td>2007</td>
</tr>
<tr>
<td>Doosan (Republic of Korea)</td>
<td>Ingersoll-Rand Co (United States)</td>
<td>Construction equipment</td>
<td>4,900</td>
<td>2007</td>
</tr>
<tr>
<td>Flextronics (Singapore)</td>
<td>Solectron Corp (United States)</td>
<td>Electronics</td>
<td>3,675</td>
<td>2007</td>
</tr>
<tr>
<td>Tata Motors (India)</td>
<td>Jaguar Cars Ltd (United Kingdom)</td>
<td>Motor vehicles</td>
<td>2,300</td>
<td>2008</td>
</tr>
<tr>
<td>China National Agrochemical (China)</td>
<td>Elkem (Norway)</td>
<td>Aluminium</td>
<td>2,179</td>
<td>2011</td>
</tr>
<tr>
<td>Warhu Polyurethanes (China)</td>
<td>BorsodChem (Hungary)</td>
<td>Chemical products</td>
<td>1,701</td>
<td>2011</td>
</tr>
<tr>
<td>Essar Steel Holdings (India)</td>
<td>Algoma Steel (Canada)</td>
<td>Steel</td>
<td>1,603</td>
<td>2007</td>
</tr>
<tr>
<td>United Spirits (India)</td>
<td>Whyte &amp; MacKay (United Kingdom)</td>
<td>Food and beverages</td>
<td>1,176</td>
<td>2007</td>
</tr>
<tr>
<td>Geely Holding Group (China)</td>
<td>Volvo (Sweden)</td>
<td>Motor vehicles</td>
<td>1,500</td>
<td>2010</td>
</tr>
</tbody>
</table>


In Table 7.2, it can be seen that 50 percent of the acquiring companies are Indian and they are targeting resource and manufacturing sectors in developed countries. This ties in with India’s overall strategy of securing international natural resources. India is also increasing their presence in Africa to acquire more resources. China is another Asian country that is actively seeking out international resource based investments, which is also evident from Table 7.2. Paladini & George (2011) document and discuss the geopolitical implications of China and India competing for global oil resources. They find that China has outpaced India in securing very large oil contracts and put forward that it may be that India’s democratic government framework makes it slower than China’s in negotiating the market place, which may be the reason why India is unable to compete with China in closing very large oil deals.

When considering the expansionary M&A activity of Indian companies, it may be interesting to note that according to $C_U$, the UK takeover code used to favour the “overtaker”, where Kraft vs. Cadbury is the classic example of a lax takeover code. However, the takeover code was changed in 2011 due to the Kraft/Cadbury case in a quasi-protectionistic move that has dampened M&A activity, according to $A_U$, a Chief Economist. Notwithstanding this, $F_U$, a Global Head of Mergers & Acquisitions, noted that London is one of the most active M&A markets in the world.

### 7.3.7 Initial Public Offerings

The IPO market is current almost dormant or, as noted by $G_I$, who is a private equity Director, “virtually dead”. It was quite active until 2008. There is often a cultural pressure to list in India where it is promoter driven, as they seek prestige. In private equity investments, many smaller clients are keen on IPOs but they are told that it is not realistic. This ties in with comments by $F_U$ on the motivation of UK IPOs. They mentioned that ‘prestige’ used to be the primary motivation to list a company, but that this factor is now less important.
Apart from prestige, another motivation for Indian IPOs may be to raise capital for R&D and to expand their business. It also raises the company’s profile and facilitates transparency, which in turn helps to attract more better qualified staff.

7.4 Institutional Structure

This section examines the role of the state, the regulators and the stock exchanges in the financial markets. As discussed in Chapter 5, the econometric modelling established that counties with higher minimum capital requirements to start a business ($\text{MCG}$), that is, countries with higher barriers to market entry, would display, on average, higher degrees of underpricing. This institutional variable was the inspiration to expand the qualitative cross-site investigation into institutional factors as well.

7.4.1 Market Influence by the State

Market influence by the state is still somewhat extensive and controlling in some areas. Market regulation is a topical political issue, but it is almost entirely left to the regulators to adjust the rules and regulations according to their aims and objectives. The regulators have a strong direct influence on market participants and the financial markets are still quite closely regulated. For example, at least 40 percent of bank lending is required to go to priority sectors, for instance agriculture. To be specific, for public banks:

‘[A]ll banks in India are required to lend at least 40 percent of their net credit to the priority sector, which includes small scale industry (SSI), at an interest rate that is required to be no more than 4 percentage points above their prime lending rate. If banks do not satisfy the priority sector target, they are required to lend money to specific government agencies at low rates of interest. In January, 1998, the limit on total investment in plants and machinery for a firm to be eligible for inclusion in the small scale industry category was raised from Rs. 6.5 million to Rs. 30 million [$162,500 to $750,000 using January 15, 1998, exchange rate of 1USD = 40 INR]’ Banerjee, Cole & Duflo (2004: 8)

For foreign banks entering the Indian market, the priority sector lending requirements are 32 percent. Although lower than the 40 percent required by domestic banks, it is a significant commitment.\textsuperscript{48} Foreign banks may soon be required to match the 40 percent priority sector lending undertaken by the public sector banks:

\textsuperscript{47}Historical exchange rates source: XE Currency Tables: http://www.xe.com/currencytables/?from=INR&date=1998-01-15
\textsuperscript{48}Economic Times (2012b).
‘As indicated in the SQR of October 2011, the Reserve Bank had constituted a Committee (Chairman: Shri M. V. Nair) to re-examine the existing classification and suggest revised guidelines with regard to priority sector lending classification and related issues. The Committee submitted its report in February 2012. It made the following major recommendations: (i) the existing target of the domestic scheduled commercial banks for lending to the priority sector be retained; [...] (v) the priority sector target for foreign banks be increased to 40 per cent of adjusted net bank credit (ANBC) or credit equivalent of off-balance sheet exposure (CEOBE), whichever is higher with sub-targets of 15 per cent for exports and 15 per cent for the MSE sector; [...]’ Reserve Bank of India, 2012

The agricultural sector has traditionally always played an important role in the Indian economy and it still accounts for 53 percent of the economy, according to L(1) (down from 70 percent in the past). Cole (2009) posits that evidence would suggest that agricultural loans may be tied to winning political elections. However, no matter the motivation, it is a significant intervention by the state.

K(1) noted that state intervention is not only about regulations but also about development of the markets.49 Several interviewees (e.g., L(1), a General Manager in retail banking) found that the protectionistic and restrictive financial regulations somewhat prevented the 2008 crisis from reaching India. However, according to Arora, Rathinam & Khan (2010) the financial crisis did hit India, through capital flight from its financial markets, exchange rate depreciation and tightening of external borrowing for the Indian corporate and banking sectors.

Notwithstanding this, market participants seem generally happy with the level of regulations and their implementation. One exception to the overall positive view, is M(1), a Finance Professor, who noted that SEBI is criticised for preventing competition and favouring the government. This general contentment with the regulators and their restrictions on the industry, is in sharp contrast to the prevailing perception in London where interviewees complain about the burden of compliance costs.

7.4.2 Regulatory bodies

The Reserve Bank of India (RBI) is currently the main regulator, which comes under the Ministry of Finance. The RBI is complemented by the Securities and Exchange Board of India (SEBI), Insurance Regulatory and Development Authority (IRDA) and the Pension Fund Regulatory and Development Authority (PFRDA).50 RBI is an independent and autonomous body, which operate by law. In particular, under the RBI Act and Banking Regulation Act. It does

49See e.g. Milner (1988) on protectionism and international trade.
50Insurance Regulatory and Development Authority (IRDA): www.irda.gov.in
Pension Fund Regulatory and Development Authority (PFRDA): www.pfrda.org.in
not have powers to prosecute. It investigates internally and then hands over investigations to the police to seek prosecutions. The Indian government will be setting up a super-regulator, the Financial Stability and Development Council (FSDC), which will be mainly tasked with co-ordinating the different regulatory bodies.

In the UK, the FSA may not be seen as a positive force by the market participants. Some interviewees complained about overbearing, burdensome and costly regulations, conducted by people with too few skills and with a political dimension, according to H, a Managing Director. Conversely, others note that the extensive regulation is needed, that it keeps clients happy and that it may even provide the UK with a competitive advantage by building a reputation for sound corporate governance practises.

7.4.3 Stock Exchange

The two dominant stock exchanges in India are the Bombay Stock Exchange (BSE) and the National Stock Exchange of India (NSE). The BSE can trace its history back to the 1830s but it has really developed over the past 15 to 20 years. Irregularities (fraud) have been uncovered periodically at the BSE and the NSE has now overtaken the BSE in terms of importance. Chakrabarti, Meginson & Yadav (2008) note that the NSE was one of the four new institutions created by the economic reforms in the early 1990s, in conjunction with the Securities and Exchange Board of India (SEBI), the National Securities Clearing Corporation (NSCC) and the National Securities Depository. Although the NSE was only established in 1994, by 2008 it accounted for approximately two-thirds of stock trading in India, in addition to almost all derivative trading. Interviewees noted that the NSE is making use of high-tech trading solutions and has a robust settlement system. The Regional stock exchanges have almost disappeared and are now mostly agents for the NSE. Retail equity participation has great potential for expansion. Today only around 4 percent of retail investors participate in mutual funds or equity, compared with around 20 percent in the early 1990s. Repeated crises and high market volatility due to the influx of institutional investors around the opening the Indian stock market to international participation drove retail investors away from equity.

Although the NSE in particular has made great strides towards international standards and is spoken of with pride in India (for example by C and D), it is clearly not comparable to the LSE. It would not be a fair comparison, as the UK market is significantly larger, more liquid, more transparent, more developed and deeper, with less equity price volatility. The Indian financial markets are still severely restricted to foreign participation, which will need to be addressed to develop their exchanges further. Daniels & Bobe (1992) argue that the liberalisation of the London Stock Exchange (LSE) was one of the main drivers for cementing London’s position as a world leader in the ‘footloose’

51 Bombay Stock Exchange (BSE): www.bseindia.com
National Stock Exchange of India (NSE): www.nseindia.com
financial services industry.\footnote{See Daniels & Bobe (1992) for an interesting and contextual account on the development of Canary Wharf as a second financial centre in London, from a city planning perspective.}

7.4.4 Market Maturity

The financial markets are still maturing but the pace has increased in recent years. Derivatives, which are still quite small in volume, were launched in 2002/03 and there are around 100 companies that are actively traded. As stated previously, equity markets have a long history in India and around a total of 5000 companies are listed between the BSE and the NSE. The UK and Indian markets are at different development stages. Whereas the LSE is an international investment environment, the Indian market is still domestically focused, with little outside influence.

7.5 Competitive Strategy

This section is inspired by three books on competition by Porter. Porter (1980, 1985) examined firm competition and the framework was extended to countries in Porter’s (1990) The Competitive Advantage of Nations. This section seeks to examine the rivalry within the different financial sectors, to understand the driving motivation behind the primary clients and look at the barriers to entry. Market barriers to entry is a key variable in the econometric model constructed in Chapter 5. This examination complements and extends the analysis carried out under the Institutional Structure heading (7.4).

7.5.1 Rivalry

Banking Sectors

The investment bank sector is characterised by high competition. Domestic banks have better access to local companies, while international players can provide better salaries which gives them a competitive advantage in the recruitment market. The sector is regulated primarily, like the retail sector, by RBI, although SEBI, as the capital market regulator, is also involved in overseeing the investment banking.

Retail banking, which opened up to competition through the 1992-93 banking reforms (Bhaumik & Dimova, 2004), is also competitive. Yet, the state and the regulators play an active role in determining the market dynamics. An example of this is that RBI only freed lending rates in April 2010 and deposit rates followed in late October 2011. According to \( L_I \), a general manager with an Indian retail bank, there is very significant competition in the retail sector. However, there are still some rural areas of India with no access to banks. There are a number of different bank segments: state co-operative banks, national co-operative banks, commercial banks (private, public (nationalised) and foreign), regional rural banks (come from public banks), premium
state co-operative banks and district co-operative banks. However, the normal classification for India is simply public sector banks, private sector banks and foreign banks. Table 7.3 provides an overview of the evolution of the banking industry in India, starting at the outset of the liberalisation period until the end of March 2004.

Table 7.3: Summary of the Banking industry: 1990-91 to 2003-04 (in Rs. billion)

<table>
<thead>
<tr>
<th>Year/Bank group</th>
<th>1990-91</th>
<th>1996-97</th>
<th>2003-04</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pub</td>
<td>Pvt</td>
<td>Forgn</td>
</tr>
<tr>
<td>No. of banks</td>
<td>28</td>
<td>25</td>
<td>23</td>
</tr>
<tr>
<td>Total assets</td>
<td>2929</td>
<td>119</td>
<td>154</td>
</tr>
<tr>
<td>Total deposits</td>
<td>2087</td>
<td>94</td>
<td>85</td>
</tr>
<tr>
<td>Total credit</td>
<td>1306</td>
<td>50</td>
<td>51</td>
</tr>
<tr>
<td>Credit-deposit ratio</td>
<td>0.63</td>
<td>0.52</td>
<td>0.60</td>
</tr>
</tbody>
</table>

Share (%)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total assets</td>
<td>92</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Total deposits</td>
<td>92</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Total credit</td>
<td>93</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Total income</td>
<td>246</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>of which: interest income</td>
<td>239</td>
<td>9.3</td>
<td>12.7</td>
</tr>
<tr>
<td>Total expenditure</td>
<td>241</td>
<td>10.7</td>
<td>13</td>
</tr>
<tr>
<td>Net profit</td>
<td>5</td>
<td>0.3</td>
<td>2</td>
</tr>
</tbody>
</table>


Table 7.3 shows that there has been a significant change in the banking segment since the liberalisation process began in the early 1990s. Public sector banks have seen a contraction of their market share, with private sector banks expanding considerably between 1990 and 2004. The foreign banks have also expanded their market share, but they remain niche players, according to Table 7.3. The State Bank of India (SBI), a public sector bank, dominates the market. In the financial year 2009-10 it held 21.78 percent of Indian bank deposits, which rises to 30.01 percent if its affiliated banks are included. Moreover, according to one informed observer of the bank that I met for a formal lunch in Mumbai, 25 percent of the economy goes through the SBI annually. Indian private banks are also doing well. They are attracting clients by offering new services. In particular, HDFC Bank and ICICI Bank stand out as being the two biggest private banks and they are both expanding.

---

53India’s Banks’ Association, 2010.
54HDFC Bank is officially known as the Housing Development Finance Corporation Limited: www.hdfcbank.com
ICICI Bank is officially known as the Industrial Credit and Investment Corporation of India: www.icicibank.com

163
Some foreign banks have been driven out of business, according to B₁, a Director. The licences to operate may not allow for enough branches and there can also be a cultural divide, e.g., deposit requirements to open an account may be higher with foreign banks. However, some are clearly successful and several interviewees (e.g., B₁) noted that for Standard Chartered Bank, India is the biggest profit contributor globally. In contrast, the UK market, according to interviewees in London, requires considerable capital and strong balance sheets to penetrate. For example, Cₚ, an European Chief Economist, noted that the investment bank sector is somewhat “peculiar” in the UK. It may behave aggressively but there is little competition as such. The sector is relationship based. Moreover, the retail market is saturated and it is difficult to get a foothold as an outside bank. Aₚ, a Chief Economist, added that the UK retail banking sector is in effect a natural monopoly, due to a very low propensity for households to move bank. However, licences and cultural divides were not raised as cause for concern among the UK interviewees.

Kamath (2007) analyses Value Added Intellectual Coefficient (VAIC) to determine the value-based performance between four categories of Indian banks (State Bank of India and Associates, nationalised banks, foreign banks and private sector domestic banks) between 2000 and 2004. Kamath concludes that the foreign banks were most efficient in value creation, whereas the public sector banks were found to have lower ratios due to excess staff levels. On the other hand, Bhaumik & Dimova (2004) examining the 1995-01 period, found that private and foreign banks held an efficiency advantage over public banks until 1998-99. From 1999-2000 and onwards, driven by competition forces, public banks eliminated the efficiency gap they had experienced in the earlier period of the study.

7.5.2 Auditor Sector

Competition is high among the Big Four auditing companies. They are well regarded and used primarily by internationally exposed and listed companies. Smaller Indian auditors have tied up with the Big Four in recent years to consolidate the market. In particular, KPMG, PwC and E&Y are mentioned by market participants as being active in India, less so for Deloitte. Grant Thornton (GT) is also becoming popular. At the second tier, there are around 2000 or so auditors. They are regulated by the Institute of Chartered Accountants India (ICAI), which is seen as doing a reasonably good job, according to G₁. The UK on the other hand is more consolidated. The Big Four have a solid grip on the UK audit market. C₁, a Chief European Economist, stated that auditors cover very complex issues and that a big house is needed to manage big clients. D₁, a Global Chief Economist, added that it is a relationship-based business arrangement in that banks tend to stay with the same auditors, even if

55 See Stähle, Stähle & Aho (2011) for an overview of the Value Added Intellectual Coefficient (VAIC) analysis. They conclude that it is not an invalid tool to determine the efficiency of labour and capital investment in a company. However, on the other hand, Zeghal & Maaloul (2010) find that the VAIC is a valid analysis.
they charge more, the relationship is more important than the fees. A 2006 UK Government report summed up the key figures around the UK auditing sector: “The Big Four audit firms [...] audit all but one of the FTSE 100 companies, and represent 99% of audit fees in the FTSE 350. The high degree of concentration in the market became more marked after the Price Waterhouse/Coopers & Lybrand merger in 1998 (six-to-five) and the dissolution of Arthur Andersen in 2002 (five-to-four). In addition, switching rates are low (around 4% on average for all listed companies, 2% on average for FTSE 100 companies), and competitive tendering does not occur frequently.”

Based on a Freedom of Information Requests submitted to the Bank of England it is evident that ‘the Bank’ employed the same auditor firm/entity for in excess of 85 years continuously. Deloitte was hired in 1919 as the first external auditor of the Bank and the lineage continued until 2006 where the first competitive tender was introduced. KPMG won the tender and was awarded a contract up to five years in length (which can potentially be extended to a second term). This would suggest that relationships have historically been valued in this type of client and agent agreement, with the Bank of England acting as a best practise example.

7.5.3 Brokerage Sector

The brokerage sector is very competitive, according to EI, an Equity Research Analyst. There are now low fees, as over the past six or seven years there have a 60 to 70 percent drop in fees. Most (if not all) banks have brokerage businesses. Various independent brokers are struggling, with limited services. This may be somewhat similar to the UK brokerage market, where, according to CU, independent brokers cannot generate profits from cross-selling.

7.5.4 Customers

Institutional Investors

Institutional investors are increasingly considering India as a viable investment option. Locally, Unit Trust India Mutual Fund (UTI) and Life Insurance Corporation of India (LIC) are both significant participants and they domestically trade only. There are also mutual funds, both overseas and local entities. Today, foreign institutional investors (FIIs) account for 70 percent of volume traded and they own 15 percent (market capitalisation) of the market, according to CII. However, retail banks and pension funds are not allowed to invest in equity, which is in contrast to the UK market where such entities are often large players, especially pension funds.

---

DTI, 2006:3.
See Appendix O.
Unit Trust India Mutual Fund (UTI): www.utimf.com
Life Insurance Corporation of India (LIC): www.licindia.in
Institutional investors are not known to engage in shareholder activism. However, if they own a significant part of a company they will be represented on the board, which would grant them some influence over the running of the company.

**Retail Investors**

Retail investors will buy products through independent financial advisor (IFAs), banks, regional/national distributors or directly off-line/on-line. The typical investor does not understand the financial markets and, as a result, invests in either mutual funds or gold.\(^{59}\) It is clear from the interviews that for Russia, India and China, the majority of retail investors are not making informed investment decisions; they are speculating. As mentioned in Chapter 6, I\(_U\) argued that there is evidence to suggest that UK retail investors are making informed investment decisions, as well as other behaviour which suggests that they are not aware of the financial risk they are undertaking.

Only around 4 percent of clients participate in mutual funds on the stock market in India. In the UK, on the other hand, most retail participants invest through mutual funds. I\(_F\), a retail banker, noted that in India 50 percent of turnover of mutual funds are from Mumbai. J\(_F\), from an international investment bank, added that the retail investment dynamics is largely a function of the caste system. It used to be that only the business caste would be involved in investments and the stock exchanges. Western Indians have traditionally been investing in the stock market (including Mumbai). Eastern Indians, on the other hand, have traditionally not been interested in the stock market or investments, although Calcutta is an exception.

### 7.5.5 Suppliers

There would seem to be a good sector mixture of companies seeking to list, although currently the IPO market is slow and there may be a bias towards mostly family owned companies. SEBI facilitates transparency and the standardised preliminary (red herring) prospectus is publicly available on their website.\(^{60}\) Once listed, companies must publish figures at regular intervals. However, less information may be available at that stage, it still a challenge to get extra information. If you call up as an investor, they do not have the department or resources to deal with this, according to G\(_F\). There are detailed listing requirements, including on transparency, and if they are followed it may not be difficult to secure a listing. However, even in the UK when the listing rules are followed, it can be difficult to form a complete picture of the issuing company. Southern Cross Healthcare may be a case in point, suggested A\(_U\). In 2006 the company

\(^{59}\)Gold is traditionally very popular in India. Gold is used for marriage, ornaments and investment vehicles.

\(^{60}\)See Baron & Holmström (1980) and Ljungqvist & Wilhelm (2002) on the IPO process, among others. See Bhabra & Pettway (2003) more specifically on the link between IPO prospectus information and subsequent company performance.
issued an IPO prospectus was at least 70 pages long, when it was seeking to list on the LSE. In the prospectus it did state that its business model was reliant on state funds so state cuts would hurt the business. However, investors seemed not to specifically notice this fact as it was listed along side other information. It may be difficult to manage this stream of information and companies may not be clear enough about what matters. They list so many risk factors that any overview is lost, according to A_U.

7.5.6 Potential entrants

India still has highly regulated markets with significant regulatory barriers to entry, which is of course the opposite to the UK. It is notoriously difficult to get a banking licence in India. The last banking licences issued to a foreign bank was in 2008 to UBS. Prior to UBS securing a licence, Antwerp Diamond Bank obtained a licence in 2002. However, it may be that four or five bank licences will be granted in 2012, according to J_I, a General Manager with an Indian retail bank. However, J_I noted that foreign banks are only allowed to open 12 branches per year in India. Regulators first choice is SBI and ICICI as they are “seen as the home team”, said J_I, a Director & Chief Economist with an international investment bank. However, foreign banks may be better at innovations and introducing need new products, which are protected by the state for quite some time. Domestic banks find it difficult to attract talent, with significantly lower entry salaries. There is also a clear difference in tax rates between domestic and foreign banks, as they respectively pay 32.445 percent and 42.024 percent tax, that is, foreign banks pay a ca. 10 percent tax premium. Local banks can raise funds locally, whereas foreign banks have to raise capital abroad. Local banks have, currently, higher priority sector lending targets (see 7.4.1 Market Influence by the State). As a result, foreign banks could have relative better non-performing assets (NPAs). In addition foreign banks may have the advantage of less government interference and being able to operate more selectively, observed K_I, a Chief Operating Officer for an international bank. However, foreign owned law firms are not allowed in India. The 2010 domestic credit to GDP ratio is 71.1 percent for India (38.4 percent for Russia), in contrast to 146.4 percent for China and 222.6 for the UK, i.e., the market is still seen as ‘under-banked’.

---

61Wearden (2011), writing for The Guardian newspaper, outlines ’[t]he rise and fall of Southern Cross’.
63See Ernst & Young (2011). The firm discusss the tax implications of operating as a bank brance vis-a-vis a wholly owned subsidiary (WOS) in India.
64China also impose strict lending requirements on domestic banks to lend SOE and support the state’s growth strategy (see e.g Haggard & Huang, 2008).
65World Bank (2012b) figures.
7.6 Conclusion

The Indian government is suffering from significant inertia. A number of high-profile public corruption scandals, coupled with a fragile government coalition, has proven devastating to both local and national governmental decision making. At a time when the country is experiencing a slowdown in growth and further reforms are needed, this governmental policy freeze is unfortunate. Nevertheless, India has changed significantly since the early 1990s. For example, today the country has a relatively free press that monitors and reports on both corporate and governmental ethical issues. Moreover, quite unexpectedly according to the interviewees in this study, the state opened up its retail market to more foreign participation around early 2012. Interviewees did not expect this to happen for some time, when they were asked in November 2011, due to the political sensitivity of allowing foreign chains to compete against local businesses. Moreover, the Indian financial sector has clearly developed significantly over the past two decades but there is still considerable scope for further liberalisation. India is still left-of-centre in terms of its approach to governing the markets. It imposes significant requirements on the market participants that are not found in the Western European free-market approach, for instance, quotas and licences on financial products. It has a well regarded regulatory framework in place already, which will be increasingly tested as the markets become more sophisticated and developed.
Chapter 8

The Chinese Dragon

8.1 Introduction

Following on from the outline of the fieldwork instrumentation in Chapter 1 and the quantitative analysis in Part II of the thesis, Chapter 8 is the final case study in Part III. Part III, which is a qualitative analysis, builds on and expands the quantitative analysis carried out in Part II (Chapters 3, 4 and 5) of the thesis. As such, Part III of the thesis brings the mixed method approach, discussed in Chapter 1, full-circle. In particular, we detected market anomalies in the pricing of equity in Russia, India and China, in Chapter 3 and Chapter 4, when benchmarked against the UK (London). The econometric model constructed in Chapter 5, proved a good overall fit on the country data set. The analysis and discussion in Chapter 5 presented some key variables that influence global IPO pricing. It is clear that economic, institutional and demographic variables are significant in explaining global IPO underpricing. However, the quantitative analysis does not provide a complete picture at the level of individual countries. To understand the underlying dynamics governing IPO pricing in Russia, India and China, it is necessary to conduct field work in each country. Chapters 6, 7 and 8 are based on this field research and endeavour to explain the market anomalies found through the statistical and econometric analysis, using London as a benchmark for a mature and efficient market. In short, the quantitative analysis (Part II) identified a number of interesting pricing anomalies and the qualitative analysis (Part III) seeks to explain this pricing behaviour on a national level, which brings the mixed method approach full-circle. Finally, Chapter 9 will draw conclusion based on the preceding exploration and analysis.

In 1978, Deng Xiaoping, as the de facto leader of China, was instrumental in introducing economic and social reforms that are still evolving today.¹ The economic modernization that China launched at the end of the 1970s ranks as one of the most dramatic episodes of social and economic transformation in

¹See, for example, Vogel (2011) for a recent analysis of Deng Xiaoping’s rise to the top of Chinese politics and his subsequent reforms.
history’, according to Pei (2006:1). China has, during this process, moved from a command economy to a more market-orientated economy or, as it is officially denoted: ‘socialist market economy with Chinese characteristics’, where the state still holds a pivotal and controlling position in the economy parallel to free market practices becoming more widespread.\(^2\) However,

‘with the emphasis on economic growth has come a change in the basis of the regime’s legitimacy. Although the Party still claims legitimacy on the basis of Marxism-Leninism and this claim has important consequences for the political system, everyone is aware that performance legitimacy has become far more important than ideology in justifying the government’s continued rule. This was true during the 1980s but has become even more important […]’ Fewsmith (2008:5)

The transition of the Chinese economy has been remarkable. Between 1978 and 2011 the Chinese economy has grown on average at 9.7 percent per year, while averaging 11 percent between 2003 to 2007. During the 2008 global financial crisis, China managed to maintain healthy economic growth due to considerable stimulus and strong domestic growth drivers, according to the World Bank (2012c). In early 2011, China overtook Japan to become the second largest economy in the world. This was a position that Japan had held, second only to the large US economy, for the past four decades (Dickie, 2011).

Scope of Fieldwork

The fieldwork which forms the basis for the China case study, was carried out between Saturday, September 17 and Monday October 3, 2011, in Shanghai. The first formal interview took place on the first Monday in the early evening (September 19), which was followed by an additional five formal interviews over the following nine working days. Moreover, during the stay in Shanghai, I secured an additional three complete interview agendas by email. The three participants (G\(_C\), H\(_C\) and I\(_C\)) were not able to meet during my stay in China, but the information they provided helped make more complete the information I obtained in face-to-face interviews. All the interviewees were accomplished finance professionals and opinion formers in Shanghai. Interviewees had initially agreed to meet for one hour to cover the interview agenda (the minimum time period required to cover all sub-headings), however, as the conversations developed almost all the interviews lasted around two hours, with one interview taking three hours.

\(^2\)See, e.g., Coase & Wang (2012) for a general overview of the reform process from 1976 up until 2010, including the inception of the ‘socialist market economy with Chinese characteristics’.
Table 8.1: Interviewees’ Codes, Status, and Sectors

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Code</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td>AC</td>
<td>Big Four Accounting Firm</td>
</tr>
<tr>
<td>Client Executive</td>
<td>BC</td>
<td>International Retail Bank</td>
</tr>
<tr>
<td>Chief Operating Officer (COO)</td>
<td>CC</td>
<td>International Firm</td>
</tr>
<tr>
<td>Senior Product Manager</td>
<td>DC</td>
<td>Asset Management Company</td>
</tr>
<tr>
<td>Senior Research Analyst</td>
<td>EC</td>
<td>Chinese Investment Bank</td>
</tr>
<tr>
<td>Shanghai Branch Manager</td>
<td>FC</td>
<td>International Retail Bank</td>
</tr>
<tr>
<td>Director</td>
<td>GC</td>
<td>Private Equity Firm</td>
</tr>
<tr>
<td>Equity Analyst</td>
<td>HC</td>
<td>Asset Management Company</td>
</tr>
<tr>
<td>Equity Analyst</td>
<td>IC</td>
<td>Fund Management Company</td>
</tr>
</tbody>
</table>

The interviewees, listed in Table 8.1, were explicitly guaranteed anonymity and they all signed a University of St Andrews’ Participant Consent Form, Anonymous Data, that explained the nature of the research and listed their rights as interviewees (see Appendix E). Moreover, there were four additional formal meetings in Shanghai, which served to build a more fully developed picture of the country and its culture. Before travelling to China, I had also had telephone conversations with two international experts on China and its economy, in addition to one extensive telephone conversation with a Chinese entrepreneur based in Beijing. On my return from Shanghai I interviewed an additional four finance professionals in regard to China by telephone. Between interviews and appointments in Shanghai, I enjoyed the local atmosphere and walked extensively around the city to form an impression of Shanghai and to see the transformation of the city. I was also fortunate to spend one day with a Chinese University of St Andrews alumnus who took me around the city by car and shared their impressions of the city and country with me.

In this chapter, the analysis carried out and the evidence presented, as in the case studies of India and Russia, is predominantly based on these primary sources and augmented by additional secondary sources.

Chapter Structure

The remainder of this chapter is structured as follows: Section 8.2 examines China in the context of globalisation, both from an economic and a social/political perspective. China is currently shifting its emphasis somewhat away from the export and infrastructure investment driven growth model, to more reliance on domestic consumption in stimulating growth. Although there has been a marked market liberalisation in China since the 1980s, the Chinese government still extensively controls information flows. India, on the other hand, chose to move away from controlling the media during its (ongoing) liberalisation process. Section 8.3 looks at corporate governance and its nature and implementation in China today. As China has become increasingly international and open with regard to its financial markets, Chinese corporate gover-
nance practises have not evolved accordingly. Significantly more transparency is required in Chinese society to bring it into line with international standards. Section 8.4 discusses the institutional structure within the country, which is still dominated by the state. Section 8.5 evaluates competitive strategy within the Chinese financial sectors. The retail and investment banking sectors are still heavily influenced by local banks. Interestingly, brokerage is closed to foreign banks and firms. According to one interviewee, China is unique in generating the largest profits from domestic brokerage (and not from investment banking, as in Western countries). Finally, conclusions will be drawn on the basis of the evidence presented on China in Section 8.6.

8.2 Globalisation

This section examines China’s interaction with the international community from a number of different angles. It looks at the relative importance of economic flows and restrictions; the relative importance of personal contact, information flows and cultural proximity; and political effects on market functions. The globalisation sub-headings and the questions in the semi-structured interview that form the foundation for this chapter, are derived from the KOF Index of Globalization which also forms a part of the exploratory analysis carried out in Chapter 4 (Dreher, 2003).

8.2.1 Economic Effects on Market Functions

Notwithstanding an unparalleled market transformation and the long period of enviable growth figures in China, there is now talk of an eminent slowdown in the Chinese Economy. Whether this decline in GDP growth will amount to a hard or soft landing, is currently being debated. An article in Time Magazine (2012, April 6) states:

‘Patrick Chovanec, a professor at Tsinghua University’s School of Economics and Management, sees China heading for a “bumpy landing,” with ups and downs in the next few years. The country’s leaders, preoccupied with the upcoming shift to a new generation of Communist officials and distracted by the global financial crisis, have put off several tough but crucial structural reforms, he notes. These include liberalizing exchange rates and interest rates, improving the distribution of wealth, carrying out tax reforms and shifting away from the increasing dominance of state-owned industries. […] Chovanec notes. “China needs corrections in the property market and broader economy to refocus growth on activities that earn genuine returns. The longer you put them off, the more painful it will be.”’
The Relative Importance of Economic Flows

China is currently shifting its policy emphasis from a focus on promoting exports and investments to domestic consumption as the primary driver for growth. C, a Chief Operating Officer, noted that state transparency may often be cited as a problem when doing business in China. However, they go on to state that at least in terms of investment strategies and growth stimulus, the Chinese government is open about its overall plans and goals. China’s 11th Five-Year Plan (2006 to 2010) was centred around significant infrastructure investments. The focus on infrastructure was to such an extent that domestic banks were forced to lend out capital to infrastructure related projects and businesses and, as a result, are now left with considerable bad loans on their balance sheets, according to, for example, BC, an international retail bank Client Executive. China’s 12th Five-Year Plan (2011 to 2015) will (crucially) focus on domestic consumption and on ‘inclusive growth’. This notwithstanding, the exports sector is still an essential cornerstone of the Chinese economy:

‘However, now that China is the world’s largest exporter (and the leading manufacturer with 19.8 percent of global output in 2010 as against 19.4 percent for the U.S.), a slowing of export growth and the concomitant restructuring of production and demand will increase the salience of domestic consumption on growth and on innovation [...]’ (World Bank, 2012d:185)

China is now the largest automobile market in the world, both in terms of production and consumption. EC, a Senior Macroeconomic Researcher, noted that China imposes high tariffs on car imports, which is a part of their agreement to protect their domestic car production. The car market is growing rapidly in China. However, this significant automobile sector growth was not expected by foreign car producers and, as such, international car manufactures are now trying to further open up the market, according to DC, a Senior Product Manager, in an asset management company. Car makers have got around the steep import tariffs by setting up factories in China, which have provided a positive spill-over effect for China, noted CC.

It is not only in car production that China has overtaken its Western counterparts. Today, China is also dominant in steel, cotton, tobacco, beer and coal production. Moreover, it is strong in high-technology exports. These are all sectors where the US used to be the market leader. However, it should be noted that Apple, Inc. products are famously included under China’s high-technology

---

5 KPMG (2011) among others offer sector specific reports on the implications of the Chinese 12th Five-Year Plan.
7 See Thun (2006) on China’s development of its automobile industry into a global force.
8 Stockdale & McIntyre, 2012.
exports although the technical and design expertise are US-based. Xing (2011) finds that Chinese manufactures produced only 3.6 percent in added value to Chinese iPhone exports in 2009. However, according to one successful entrepreneur based in Beijing with a number of companies under their control, very large Chinese companies may emerge on a global scale with innovative products, in a fashion akin to Apple’s success, within the next ten years.

The Relative Importance of Economic Restrictions

Restrictions may differ by district, according to BC, a Client Executive. For example, there are economic free zones, where high-technology and entrepreneurship is encouraged. CC, a Chief Operating Officer, added that these zones may offer, say, 5 percent corporate tax for 5 years, as oppose to the usual 30 percent. Interestingly, the effectiveness and fairness of the judicial system also varies across the country, added CC. One multinational company that partook in the fieldwork stated that they choose Shanghai in which to base their China office over Beijing mainly due to the more business-friendly and fairer court system in Shanghai. This notwithstanding, corruption is still a general problem within the Chinese judicial system across the country. Bureaucracy is also a significant factor in China. One Media Director stated that there are “four worlds of bureaucracy in China”: In Beijing nine departments regulate his business, in Shanghai one department regulates his business, in the (15 to 20) second-tier cities it varies. For the rest, it is driven by one person, “one person runs the show”.

Joint ventures (JV) are also required in many sectors and industries for foreign companies to enter China. However, over the past three or four years, this requirement has been relaxed and today wholly foreign-owned companies are allowed to operate in some sectors, according to DC. However, JVs are still required in the financial services industry and foreign entities are not allowed to take part in the very lucrative, Chinese, brokerage sector, noted FC, an international retail bank Branch Manager. Updated guidelines on foreign investments came into effect on January 30, 2012. The update of the Industry Catalogue for Foreign Investment, as it is officially known, reflects the emphasis of the 12th five-year plan. Clifford Chance (2012:1), the international law firm, concludes that:

‘In recent years, China has gradually shifted its focus on enhancing the “quantity” to “quality” of foreign investment. Hence, the Chinese government is now more receptive to foreign investment in emerging industries such as hi-tech and innovative technology, environmental protection, renewable resources, new energy, modern agriculture, manufacturing and services.’


9See, for example, Killing (1983) and Harrigan (1988) on joint venture strategy considerations. See Pingyao (2009) for an analysis on the role JV and FDI in China.
However, by only moving financial leasing companies onto the permitted investment list for foreign companies, the updated FDI strategy has had little impact on the financial sector.\footnote{Clifford Chance, 2012.} China has clearly benefitted greatly from the JV arrangements. It has transferred foreign skills, know-how and technology into local Chinese companies. C\textsubscript{C} noted that Chinese companies have successfully built on the initial know-how they acquired through JVs in, for example, the aeronautical sector and the Chinese space programme. A\textsubscript{C}, a Chief Economist, lamented that it is easier to move capital (e.g., VC) into China than to UK export services. They would like to see an improvement in China’s service import framework.

### 8.2.2 Social Effects on Market Functions

China is becoming more outwards looking. The travel industry is booming in China, but obtaining a permit to leave China can still be a challenge, according to B\textsubscript{C} and C\textsubscript{C}. For the 2010 China World Expo, 95 percent of visitors to the event in Shanghai were locals from all over China, according to C\textsubscript{C}. The wealthy and middle classes travel outside China. Hong Kong is very popular, as are, London, Paris, New York, Singapore and Malaysia, noted C\textsubscript{C}. Li et al. (2009) considers the immense growth potential of outbound Chinese tourism. They note that the estimate for 2010 outward travel is 50 million tourist from China, with this figure projected to increase to 100 million by 2020. C\textsubscript{C}, on the subject of outbound travel, commented that although it is not widely known, Arab countries have a substantial number of Chinese professionals based in their region in relation to energy industry projects (oil and gas initiatives by the Chinese government).

Learning English has now become a priority for a large part of the urban population, with extracurricular English tutorials for children rising in popularity, according to D\textsubscript{C}. This sentiment was echoed in India, where M\textsubscript{I}, a Finance Professor, observed that even poor parents would seek out private education to ensure that their children learn English.

In China all types of media are controlled and censored by the state. In late 2011 users of the Internet passed the half a billion milestone in China, although Internet penetration as a whole is still low in comparison to Japan and South Korea. Internet penetration increased by 3.4 percentage points over 2011, taking the total to 37.7 percent for China, whereas Japan and South Korea have around 70 percent penetration.\footnote{Reuters, 2012, January 11.} While the Internet is widely used by the urban younger generations, it is also subject to considerable censorship. In China, Internet censorship is two fold: content (deletion of text) and access (the Great Firewall of China).

Bamman, O’connar & Smith (2012) analyses the type of content that is politically sensitive and more likely to be removed from the Chinese microblog
Moreover, Bamman, O’connar & Smith find that certain of the Western China provinces have much higher deletion rates (in particular Tibet and Qinghai). King, Pan, & Roberts (2012) examine the government’s motivation for Internet censorship in China. They conclude that censorship is used to reduce collective activities and expression in China.

The “Great Firewall of China” can be circumvented by a simple software program, which is either free of charge or sold for around $5 unofficially, noted DC. Nevertheless, the state’s management of information flows on the Internet is quite sophisticated, to the extent that it significantly reduces the download speed of certain international websites. One Director of a China-based media company explained that the Chinese government on purpose makes it difficult to access some foreign run websites, for instance, Google and Gmail. The government ensures that the connections to these sites are slow, unreliable and that they will often fail. This is done by the state to divert business away from foreign sites and onto domestically run websites. Western internet companies are mirrored by very successful Chinese providers. These include Google (Baidu), eBay (Taobao), Twitter (Sina Weibo), Facebook (Renren Network), YouTube (Tudou), amongst others. The government waits for a separation of the sub-set of domestic providers of a service and then backs them. In September 2011 Groupon was struggling in China and a number of other companies were trying to position themselves as the market leader. Once this leader has been identified, the media director predicts that the government will step in and further back the dominant Chinese entity. Although this account of state intervention may sound extraordinary, it is in line with testimony to the US Congressional-Executive Commission on China:14

“'When most people think of the Great Firewall of China, they think of government censors black holing the comments of political dissidents or conversations related to the long list of topics the governing Communist Party finds disruptive to political harmony. But in testimony before Congress, the head of a U.S.-based technology industry group said that the censorship is also taking an economic toll on Western Internet firms, as China steers Chinese consumers away from Western Web based services including Facebook, Google, Twitter, Yahoo and Foursquare and toward domestic competitors.

Ed Black, President and CEO of the Computer and Communications Industry Association (CCIA) told the Congressional-Executive Commission on China that the Chinese government “censors, blocks and discriminates against foreign-based Web services and content.” The net result of the filtering, he said is to “directly or indirectly advantage domestic firms.”' (Roberts, 2011:1)

12Sina Weibo: www.weibo.com (Chinese website). This website is somewhat similar to Twitter (The US microblog site).
13Named ‘Gaopeng’ in China, as another company had already trademarked the name ‘Groupon’ in the country.
14Congressional-Executive Commission on China: www.cecc.gov
However, the Internet is increasingly becoming a forum for discussing corruption and poor business ethics. When scandals are widely disseminated on the Internet, the state normally takes action against the alleged offenders, notes DC. Foreign companies can also access blocked sites from their offices (using proxy servers) and mobile phones can also access restricted material, finds BC. Despite the restrictions, China has become more open in terms of the flow of information, both domestically and to the international audience, according to AC and FC (amongst others).

Magazines have also become increasingly popular and they are targeted predominantly towards the wealthy. There also exists censorship of this media. Cc, for example, was awaiting the arrival of the ‘Economist’ magazine in the post, as they had already heard about an interesting article on the Chinese government in that specific issue of the magazine. The issue was delayed and when it arrived the pages containing the article on the Chinese government had been physically ripped out of the publication.

In China, television is the main medium of entertainment. China Central Television (CCTV) is based in Beijing and promotes government propaganda.\footnote{China Central Television (CCTV): http://english.cntv.cn/01/index.shtml} It broadcasts shows about loyalty, family values and such-like themes. On the other hand, “China has got Talent” was a huge hit for Shanghai TV, Which has a more entrepreneurial feel.\footnote{See Zhao (1998) and Lynch (1999) on state propaganda in the Chinese media.}

China’s concerted effort to suppress the flow of information and manipulate opinions in the population is in stark contrast to the quite free flows of information in the UK. AU, a Chief Economist, has observed a proliferation of blogs and sites in recent years and believes that the “brand” has become vital in today’s market place. The brand is used to indicate that you can trust the information being transmitted. For the UK, the BBC is that brand.\footnote{BBC: British Broadcasting Company.} It is personalised by radio and TV hosts, in a sense you feel a connection with the journalists as they appear on TV or radio. Basically, the filtering mechanism is essential today and it is the brand. CU, a Chief European Economist at an international investment bank noted that the UK has five good international newspapers and the US has two or three good international newspapers. They summed up their observations by noting that the news resources in the UK are great. TV is still dominant across the board but the Internet is playing an increasingly important role in disseminating information, whereas the print media is in decline. IU, a Senior European Economist, suggested that today there is no monopoly on forming opinions.

Cultural proximity is here measured as the country’s openness to Western European brands in retailing. Western brands are ubiquitous and extremely popular in Chinese cities. “Chinese idolise Western items”, noted BC. Yum! Brands (parent company of KFC, Taco Bell and Pizza Hut), plan to open 5000 more stores in China by 2020.\footnote{Inside Retail Asia (2012).} However, there are some challenges for foreign companies to overcome. Copycats are a problem in China, with its weak judicial
system, so protecting their goods and brands can be problematic, according to 

Despite the fact that China has experienced a tremendous internationalisation of its tier-one cities, most noticeably Shanghai, it is still a uniquely Chinese environment. At the same time, personal contact between the UK and the global community has continued to increase. C observed that there is a divide in the internationalisation of the UK, with London (a very international, multicultural place, with a favourable business climate) versus 'the country' (different ‘type’ of multiculturalism). This was echoed by who suggested that London is not representative of the country as a whole, London may be more like the Netherlands. continued to comment that it is almost like barriers do not exist between countries now, “Don’t really think about whether it’s an international call now when you pick up the phone”.

The “One Child Policy”, introduced in 1979, has meant that children have become a precious commodity in China and businesses are increasingly targeting this segment of the population. There are 150 million children below the age of ten in China. You often see one child with six adults (two parents and four grandparents) hovering over it on the street, according to . It is now becoming more common to have two and three children but the parents are subject to a one-off fine of around $4000 - $5000.

Chan, et al. (2002), are concerned about the imbalance in the Chinese gender ratio as a result of the one-child policy and conclude that by 2029 there may be up 30 million more males than females in China. Hesketh, Lu, & Xing (2005:1174) express their concern about China’s capacity to care for the larger proportion of elderly people:

In China, the percentage of the population over the age of 65 years was 5 percent in 1982 and now stands at 7.5 percent but is expected to rise to more than 15 percent by 2025. [...] Although these figures are lower than those in most industrialized countries (especially Japan, where the proportion of people over the age of 65 years is 20 percent), a lack of adequate pension coverage in China means that financial dependence on offspring is still necessary for approximately 70 percent of elderly people. [...] Pension coverage is available only to those employed in the government sector and large companies. In China, this problem has been named the “4:2:1” phenomenon, meaning that increasing numbers of couples will be solely responsible for the care of one child and four parents.’Hesketh, Lu, & Xing (2005:1174)

---

19 See Hesketh, Lu, & Xing (2005) analyse the implications of the one-child policy after 25 years, in terms of population growth and discuss whether it is time to relax this rule. See Fong (2006) on the one-child policy results on family dynamics.
8.2.3 Political Effects on Market Functions

China would like recognition on the international stage as a world power. It would like to be seen as organised and open to business, to the extent that China spend $10 million in 2011 to promote China on Times Square in New York, according to DC.\textsuperscript{20} DC continued by observing that although China is becoming more proactive in managing its foreign relations, it is not on the best of terms with Russia. China is happy to have more influence than Russia internationally, as they feel like they are competing with their old ally, adds BC. Kotkin (2009) finds that despite Russia’s large oil reserves, China is firmly in control over the Sino-Russia dynamics:\textsuperscript{21}

‘[W]hatever opportunity does exist in the relationship, China is in a better position to exploit it. China extracts considerable practical benefits in oil and weapons from Russia. In return, Beijing flatters Moscow with rhetoric about their “strategic partnership” and coddles it by promoting the illusion of a multipolar world. In many ways, the Chinese-Russian relationship today resembles that which first emerged in the seventeenth century: a rivalry for influence in Central Asia alongside attempts to expand bilateral commercial ties, with China in the catbird seat.’ Kotkin (2009:132)

Despite China’s endeavours to promote itself internationally and claim recognition, including the Beijing 2008 Olympics and the 2010 World Expo in Shanghai, they still have a lot to learn in terms of managing their international relations. For example, when the Nobel Prize was awarded to the Chinese human rights activist, Liu Xiaobo, government officials made some crude comments, noted BC. Or as one Chinese financial analyst, IC, noted “Compared to the U.S. and the EU, our overseas propaganda was not enough, sometimes too rigid. Westerners do not like those scripted publicity [...]”.

The UK is also aware of the importance of promoting its business credentials internationally and as a result it dedicates Foreign Office resources to sell the UK overseas.

8.3 Corporate Governance

This section examines the position of stakeholders in China, corporate social responsibility, business ethics, enforcement and control, corporate governance and firm performance. Moreover, it also covers mergers and acquisitions and initial public offerings. Good corporate governance practises are essential in establishing fair IPO valuations and, by extension, ensuring efficient allocation of resources in economies. Issues such as transparency, earnings quality, business

\textsuperscript{20}Xinhua, a news agency operated by the Chinese government, leased the giant sign, known as a ‘spectacular’ on Times Square.

\textsuperscript{21}See for instance Lo (2008) for an extensive analysis of Russian and Chinese relations.
ethics and management skills will be important to both investors and stakeholders in the wider community. Chapter 5 established through econometric modelling that the frequency and the level of detail required of interim corporate reports influence IPO underpricing. More stringent reporting requirements were found to reduce underpricing. By including core corporate governance topics in the fieldwork study, it is possible to go beyond the figures and build a fuller picture of the underlying courses of market failure.

8.3.1 Stakeholders

Employees are not involved in the daily decision-making process. As C noted, it is a top-down organisational framework in China. It starts in their top down schools from a young age. As a result, suggested that it is very hard to find proactive and self-motivated staff in China. If you tell them to do 10 tasks every day, they will do them very well. But if something changes or goes wrong, they are not able to adjust. Their company “does have some bright sparks as well who can work independently.” At the same time, creativity may be lacking among the talent intake in their company. However, it can be a good mix with foreign talent, concluded C.

There are job advancement opportunities if you work hard in China, especially in foreign companies. Graduates tend to frequently move between companies to improve their career. Although it should be noted that nepotism is quite widespread in China. It not only extends to allocating jobs to well-connected candidates but also placing them on a considerably higher salary level as opposed to their peer group. For state-owned enterprises (SOEs), relationships with senior management are seen as being the most important factor in your career progression, according to C and D. These are not new phenomena, with Child (1996) and Yang (1994), among others, discussing the Chinese approach to management and social relationships.

Managers are seen as being accountable in large private companies, but not in SOEs. China, Russia and India are all three economies with significant SOE components. Boardman & Vining’s (1989) paper finds that private enterprises outperform both mixed-owned and state-owned enterprises in terms of sales per employee and profits. Crucially, SOEs enjoy a privileged market position through state protection in all three countries. This is in contrast to the UK, where during the 1980s, many state-owned companies were either privatised or, if unprofitable, simply closed down. This is far from the case in Russia, India and China, where these companies also serve a social function. They provide employment, social security and help to bring stability to parts of the countries where there may be no alternative forms of employment in the medium term.

Salary inflation is very high in China due to a talent shortage in some sectors. Interesting, C was of the opinion that non-nationals may be cheaper to hire at middle-management level and above. This is due to the fact that 30 to 60 percent of the salaries paid to Chinese nationals is required to be paid towards statutory benefits (e.g., insurance and welfare benefits) and is added to the basic salary.
External stakeholders are not well protected in China in terms of judicial redress. The effectiveness and fairness of the judicial system varies across the country. Corruption is still a general problem within the Chinese judicial system, as it is in all aspects of Chinese society. It is the norm and it is generally accepted. Dee noted that you can sue if you have a problem. However, oil, gas, telecom, electricity and utilities are state-owned industries. You cannot protest against the state, therefore you cannot sue these companies. The courts are also part of the government. To maintain control of the legal system, the government issued a new directive in March 2012 that stipulates that all new lawyers and lawyers renewing their licence, must swear an oath to the government:

‘I swear to faithfully fulfill the sacred mission of legal workers in socialism with Chinese characteristics. I swear my loyalty to the motherland, to the people, to uphold the leadership of the Communist Party of China and the socialist system, and to protect the dignity of the Constitution and laws.’ Wong (2012:1)

In business, personal contacts with officials are paramount, as everything is open to interpretation. The ambiguity of rules and regulations in China gives state officials inordinate influence in all aspects of society. As G noted, “the interpretation of the law is always very murky. Everything is grey.” For Industries and sectors that are especially dependent on government goodwill, headquarters are located in Beijing, while others who prefer to keep some distance and seek less government interference are based in Shanghai. For example, construction and utilities companies are often based in Beijing, whereas the financial services sector is based in Shanghai, added B.

Unions are not normally encouraged in the Western sense. In China, “unions are part of the company”; you may even have a manager as the head of the union in some companies, according to Dee. They generally function more like a body that provides assistance and welfare, not as a collective bargaining entity. However, there are exceptions; for example, manufacturing and for some foreign companies. Unions have been quite effective in some cases, e.g., Foxconn Technology Group, the very large manufacturing company. There is a skills shortage in manufacturing, which may place workers in a stronger position. The Beijing area now requires any company with more than 300 or 400 employees to have a union, according to C.

Although unions have steadily lost their influence over the past 40 years in the UK, they can legally, and without fearing state repercussions (as oppose to Russia and China), organise their members if they wish to do so. As a collective force in the private sector, unions are extinct in the UK. Unions are still in present in the public sector and former privatised companies, for example, BA where they are rent seeking. A notes that they have seen evidence that some companies will not buy, or invest in, companies that are unionised, that is, they divert funds away from those entities. And yet, according to A, a Senior

---

22 See Olsen (1965) on collective bargaining.
23 Foxconn Technology Group: www.foxconn.com
European Economist, although unions are still somewhat strong in transport (airlines/ports/tube/rail) there has been a muted response to the severe austerity measures: “More a silent acceptance”, which is a considerable change from the 1970s. This muted response continues even two years into the government austerity package. It is a more an individualistic society now, noted I_U.

8.3.2 Corporate Social Responsibility

Western-style CSR is not widely seen in China.\textsuperscript{24} There are some innovative and interesting projects in China, but it is not high on the agenda of most companies or consumers.\textsuperscript{25} However, CSR is used as a government response to Chinese natural disasters. Companies are encouraged to donate money and the amounts are widely publicised on television; companies are, in effect, named and shamed. As with India (mandatory contributions) and the UK (political pressure on companies to implement CSR schemes), the Chinese government considers CSR as a part of its social foundation.

8.3.3 Business Ethics

Corporate scandals are discussed publicly and many government scandals enter the public domain. However, some feel that scandals are still government managed to some extent. If it is not in the government’s interest to have something come out, and if the papers still go ahead, the government will close or take control of the paper(s). This is the same sentiment encountered in Russia, where the mass-media is controlled indirectly by the state. Unethical business practises are often used in China. However, as B_C and others noted, business is conducted from the perspective of the average Chinese person and they may not see the practises as unethical at all; their social norms differ from to the Western paradigm. This is in line with Crane & Matten (2007) who posit that as globalisation advances across the world, corporations will have to consider that local customs may not have changed accordingly:

> ’As business becomes less fixed territorially, so corporations increasingly engage in overseas markets, suddenly finding themselves confronted with new and diverse, sometimes even contradicting ethical demands. Moral values, which were taken for granted in the home market, may get questioned as soon as corporations enter foreign markets (Donaldson, 1996). For example, attitudes to racial and gender diversity in Europe may differ significantly to those in Middle Eastern countries. Similarly, Chinese people might regard it...

\textsuperscript{24}See, e.g., Vogel (2005) amongst others for an overview of the CSR area.

\textsuperscript{25}For example, some companies give out school bags with reflective strips of material to make children more safe in traffic and fill the bags with study material. One company builds libraries for schools. It offers an Ikea approach to these sets and takes $15,000 and upwards for sponsorships.
as more unethical to sack employees in times of economic downturns than would be typical in Europe.\textsuperscript{26} [...] 

The reason why there is a potential for such problems is that whilst globalization results in the deterritorialization of some processes and activities, in many cases there is still a close connection between the local culture, including moral values, and a certain geographical area. [...] This is one of the contradictions of globalization: on the one hand globalization makes regional difference less important since it brings together and encourages a more uniform global culture. One the other hand, in eroding the divisions of geographical distances, globalisation reveals economic, political, and cultural differences and confronts people with them.’ Crane & Matten (2007:18,19)

Government officials are hanged publicly in China for taking bribes to send a strong signal that corruption is not accepted, according to CC. CC went on to lament that although the government is trying to reduce corruption, it is part of the culture in China. “It is a huge problem in China, a very, very serious problem in China.” Even on a grassroots level it is seen as normal. If you park your car the parking attendant will ask you if you want a receipt. If so, it will cost you $1.50 to park. If not, it will cost you $0.5 to park your car.

On May 1, 2011, the Chinese government made it a criminal offence to offer, receive, or ask for bribes. This new statute applies to everyone. This is a milestone and great progress according to CC and it should level the playing field, as international companies were already subjected to the US Foreign Corrupt Practices Act (FCPA) and the UK Bribery Act. The US Foreign Corrupt Practices Act was introduced in 1977, however opinions are still divided over whether this unilateral Act places US companies at an economic disadvantage in the international market place. Some argue that the US should actively ensure that other countries across the world follow suit, for example, Salbu (1997). The UK Bribery Act followed in 2010 and brings the UK in line with the US posit in this area. Hatchard (2011) examines the potential impact of the UK legislation. More recently, as mentioned, China enacted its anti-bribery law in 2011 (see Mark & Bullock (2011) for a short commentary).

\section*{8.3.4 Enforcement & Control}

International companies in China have good accountancy standards but local companies are often seen as having issues with their audited figures. Hence, financial statements are generally not regarded as reliable, noted DC. FC stated that listed companies in China have got corporate governance systems that, on the surface, look similar to Western countries but they still have family

\textsuperscript{26}Dr Jim Jin, University of St Andrews, suggests that the attitude to terminating employment contracts in China during financial difficulties changed in the early 1990s. It may, in fact, be that firings in China are now more ruthless then in the West.
ownership issues and are relationship based. The equity market has developed at a quick pace over the last ten years and corporate governance has improved.

Accounting and corporate governance risks related to non-transparent Chinese companies were documented further in 2011, with the added dimension of cross-border auditing problems. Between March and July, 20 Chinese US-listed companies were delisted and auditors resigned from a total of 30 companies. On July 11, 2011, Moody’s issued a widely cited “red flag” report highlighting potential risks in 61, mainly smaller and Hong Kong listed, Chinese companies. The five categories covered were: weak corporate governance, risky business models, fast-growth strategies, poor earnings quality and audit concerns. Six days after the “red flag” report, Fitch Ratings acknowledged this issue as well and published a report that states, “that its ratings for Chinese corporates already include an inherent discount for weak corporate governance relative to international capital market standards, as well as for issues such as an under-developed legal system and quality of information standards.”

D.U., Global Chief Economist, noted that for the US in the 1970s, 15 percent of earnings in S&P 500 was foreign (i.e., 85 percent US exposure). It is now 30 percent (i.e., 70 percent US exposure). Correspondingly, for the UK, the FTSE 100 offers only 50 percent exposure to the UK now. This is something retail investors may not realise and consider when investing in US or UK equity indices.

Despite the challenging environment, the Big Four accounting firms, have a good reputation in China. However, there are signs that the Big Four may find themselves in an uncomfortable position between the US and China. On May 10, 2012, the Chinese government instructed the Big Four auditor firm to localise their operations in China:

‘Although the firms have hired thousands of Chinese accountants in recent years, many of their senior staffers have come from outside China. The firms were originally allowed to operate largely with foreign partners because qualified local staff were scarce.

The edict comes amid rising tensions between regulators in the U.S. and China over the sharing of audit information of mainland China-based companies whose shares are traded on U.S. exchanges.

On Wednesday, the U.S. Securities and Exchange Commission charged a Chinese unit of Deloitte with violating the Sarbanes-Oxley Act by refusing to hand over documents related to a Chinese firm [Longtop Financial Technologies] that’s under investigation for defrauding investors. Deloitte has said doing so would violate Chinese state secrecy laws.

Under the new rules, the Big Four will have to show by the end of this year that no more than 40% of their Chinese partners have gained their certified public accountant certification overseas. By

---

27BBC, 2011, July 11.
28O’Keeffe, 2011.
29Kwok & Subedar, 2011.
30Fitch Ratings, 2011.
2017, that cap will drop to 20%, and a Chinese citizen must be picked to head each of the Big Four’s operations in China. Pierson (2012:1)

The media is far from free to report on issues in China leaving a gap in the external corporate governance controls. Moreover, although there can be very severe consequences at times and the government has taken some steps to try to reduce corruption. It is clear that enforcement is lacking in China. The Russian media is also restricted in reporting freely on corporate governance issues and is under the control of the state. And yet, it may not be surprising to learn that there are restrictions on media reporting in Russia, when even the financial regulators are not allowed to intervene in some suspected fraud cases, according to, for example, GR, a Senior Investment Officer in Moscow. Both in the UK and in India, on the other hand, the media exerts a strong influence over companies, as they are often afraid of media headlines, according to, IU, a Senior European Economist in the London, and DI, a Senior Economist in Mumbai, for example.

8.3.5 Corporate Governance & Firm Performance

Board composition does not seem to be a topical issue in China. It is normally a mix of well-connected people. SOEs typically have government officials, or members with prior government backgrounds, on their boards. Listed SOEs also tend to have outside members as well, with some independent directors. Remuneration seems not to be discussed in the public domain and the interviewees did not have any comments to make in this regard. Although remuneration is becoming more frequently discussed in the UK, HE, remarked that UK board compensation is “still murky.”

8.3.6 Mergers & Acquisitions

There is a high frequency of M&As in China. Jensen (1993) suggests that the M&As can impose some discipline on markets, especially when takeover defences are somewhat low. Xin (2003) analyses the period 1993 to 2002 in the Chinese equity market and suggests on the basis of the evidence that the targeted companies benefitted from the deal in terms of improved share price, however the purchasing companies (and the merger as a whole) do not see a statistically significant net improvement as a result of the M&A activity.

The domestic M&A market is not as large as the cross-border deals. The cross-border deals tend to be large and are very important to China. A lot of effort is being invested in this area by China now. They look for “strategic acquisitions” in the Energy and Resource Sectors. Also, there is a trend of financial

---


32 The body of research on M&As is vast, but see, e.g., DeYoung, Evanoff & Molyneux (2009) for a post-2000 survey on the M&As of financial institutions.
institutions going abroad, for example, buying Hong Kong-based banks. The Industrial and Commercial Bank of China (ICBC) acquired an Africa bank.\textsuperscript{33} Ping An (China’s second largest insurance company) also bought an international company but got into trouble due to the crisis and made a huge lose.\textsuperscript{34} D_U, a Global Chief Economist, stated that although China is resource focused it is very slow to do deals. They are consistently missing out on deals in Africa at the moment and they are very cautious. D_U went on to note that China is aware that other countries have a historical presence and expertise in Africa (e.g., the United Kingdom) that China lacks. M&A takeover defences are specifically not used in China. As the government acts as the filter, M&A falls under the government control side. This approach is in contrast to the UK, where the government is not involved in such decisions (unless there are anti-trust issues or it is a matter of national security).

8.3.7 Initial Public Offerings

IPOs are still quite frequent in the Chinese markets, according to e.g., A_C, B_C, D_C and F_C. The Shanghai Stock Exchange is mainly for blue chip companies like utilities and banks, whereas the Shenzhen Stock Exchange list many smaller companies in, for example, in the food and retail sectors.\textsuperscript{35} As of September 2011, there had been around 300 listings that year in China. Almost all of these were small companies, with around 50 percent losing money on the first day of trading, stated D_C. F_C added that for the past three years, investors have always made money on the first day of trading. However, investors are quite often losing money now on the first day in 2011. This is due to a lack of investor confidence and weak market sentiments, tied to poor showings overseas. When the market gets better many companies will want to list. A long list of companies are queuing just now. “It will be huge”. Since 2007 the IPO market has been in a developing mode. There was an explosion of IPO deals and the market was attractive. “Everyone was happy and making money”.

F_C explained that to buy IPOs in China you need to submit an online request. Interested parties submit money first, apply apply and a ration is worked out if the issue is oversubscribed, say, 1:100. That means that one out of one hundred applicants will receive one allocation of shares. Before 2009, the ratio was 1:1,000 or even 1:10,000. However, 2009 marked a turning point in the IPO market when the crisis took hold and there were regulatory problems. Now rations of 1:3 or 1:4 appear, and the less attractive the IPO, the more likely that the applicant will be given an allocation. In other words, uninformed investors are being subject to adverse selection.\textsuperscript{36}

\textsuperscript{33}Industrial and Commercial Bank of China (ICBC): www.icbc.com.cn/ICBC/sy/
\textsuperscript{34}Ping An: http://about.pingan.com/en/index.shtml

\textsuperscript{36}Seminal papers by Rock (1986) and Beatty & Ritter (1986) explore the ‘winner’s curse’ model, which is based within the asymmetric information (AI) framework, as discussed in Chapter 3 of the thesis.
F. C. noted that the assigned investment bank produces a company-specific report that is used to justify the share price that the bank decides to recommend to the CSRC.\textsuperscript{37} The investment bank uses a coding system, online, to take bids from institutional and retail investors, in order to determine the level of demand. Once a price has been determined, it is taken to the CSRC where it is subject to final approval. In other words, the state has the final word in the price setting process. In IPO theory, three agents are normally considered: the issuer, the underwriter and the investors. In China, the government acts as a fourth agent in the IPO dynamics, further complicating an agent-principal relationship already fraught with uncertainty and conflict of interests.

In short, the flow of companies to China’s IPO market is controlled by the government. As it stands, foreign companies cannot list in China and, even when a Chinese company gains access to the IPO market, the government will have the final word in approving the IPO pricing. Moreover, the individual investor is faced with a winner’s curse when applying for an IPO allocation. The ‘hotter’ the IPO, the less likely an investor is to secure stocks in the company, and vice versa. The institutional and legal framework is weak, which means that an IPO offering may be more likely to be flawed, however, it is difficult and costly to seek redress in court. In contrast, the LSE is an open, market-driven entity with minimum government interference. These two countries are at the extreme ends of the scale of market efficiency, which may explain a great deal about the difference in IPO underpricing over time.

8.4 Institutional Structure

This section examines the role of the state, the regulators and the stock exchanges in the financial markets. As discussed in Chapter 5, the econometric modelling established that counties with higher minimum capital requirements to start a business (MCG), that is, countries with higher barriers to market entry, would display, on average, higher degrees of underpricing. This institutional variable was the inspiration for expanding the qualitative cross-site investigation into institutional factors as well.

8.4.1 Market Influence by the State

Market influence by the state is extensive in China. It directly controls the courts, the media and the regulators.\textsuperscript{38} The International Monetary Fund (IMF) (2011) recommended that the Chinese government liberalise the banking sector and allow the banks freedom ‘to make lending decisions based upon purely commercial goals’ (IMF, 2011:9). The IMF noted that the Chinese government had been able to cover the cost of financial distortions, e.g., giving preferential

\textsuperscript{37}In China, investment banking and underwriting come under the auspices of securities companies.

\textsuperscript{38}See the Chinese government’s official website for a comprehensive overview of the state organs (including the judiciary system):
treatment to SOEs in the market place, through high productivity gains. However, in the future, this would not be a sustainable policy. Haggard & Huang (2008:361) state:

‘There is general agreement among China scholars that the country’s financial sector is closely tied to the SOE sector. As a result, it suffers from a number of inefficiencies, manifest in the extraordinarily high level of nonperforming loans even at a time when the economy was growing rapidly.’

The Chinese state exerts market influence through its SOEs. It is widely documented that China has reduced the size of its SOE sector since the 1980s, for example, see Frazier (2005). As illustrated by Figure 8.1, the share of SOE involvement in Chinese manufacturing has declined approximately 36 percentage points between 1999 and 2008 (Xu, 2010).

**Figure 8.1: Share of SOEs in the Industrial Sector, 1999 to 2008**

![Share of SOEs in major industrial enterprises (percent)](source: Xu (2010), the World Bank)

However, the full picture may be more complex and non-transparent. Szamosszegi & Kyle (2011) note that although prior research estimates that the Chinese private sector accounts for approximately 70 percent of GDP, when taking into account other ownership structures with state involvement and round-trip FDI, the state sector may account for, in excess, of 50 percent of GDP.39 As B_C and

---

E_C, among others, noted, Beijing is the centre of control. Information cascades down from Beijing, to the provinces, which can create an unclear message, as interpretations vary. Both B_C and C_C noted that government officials gain influence and power through this interpretation process. It helps being on good terms with the person tasked to apply the rules and regulation to your company, added C_C. When G_C, a private equity Director, was asked whether people and businesses enjoy good/fair legal protection in China, they replied: “No. Interpretation of law is always very murky. Everything is grey.” This may relate to guanxi, the Chinese approach to networking, which is discussed in, for example, Park & Luo’s (2001) and Xin & Pearce’s (1996) widely cited papers.

In China, as in India and Russia, the government/regulators interfere in the running of the financial markets. The motivation may vary between the countries but, invariably, equity prices will deviate from their market value when artificial barriers are erected. In the UK, on the other hand, the government is trying to stay more-or-less out of running the financial markets. In September 2011, the European Commission (EC) proposed that an EU-wide Financial Transaction Tax (FTT) should be levied on securities transactions. This initiative has considerable backing from the German government. The tax would constitute minimum 0.1 percent of the value of equity and bond transactions. Moreover, derivative transactions would be taxed at a minimum of 0.01 percent of the notional value traded.⁴⁰

The motivation for the intervention is three-fold, according to the EC:

- To create a uniform taxation approach to the financial services, in order to avoid potentially fragmenting unilateral action.
- To recuperate sovereign funds used to stabilise the financial systems during the recent crisis, while also ensuring that the sector is brought in line with taxation on other industries.
- ‘To create appropriate disincentives for transactions that do not enhance the efficiency of financial markets thereby complementing regulatory measures aimed at avoiding future crises.’⁴¹

The City is worried that this proposal, if extended to the UK, could divert business away from London. This is a view shared by the UK Government, and Prime Minister David Cameron vetoed this proposal in early 2012, excluding the UK from this agreement. According to Managing Director, G_U, of an international financial services company, the EU Directive on Alternative Investment Fund Managers (AIFM) proposal is another example of Germany versus the UK in terms of perspectives on management of the financial services (with the legislation drafted by the German power-block).⁴² They add that this proposal

---

⁴⁰European Commission, 2011.
⁴²The Alternative Investment Fund Managers (AIFMs): ‘The directive is focused on the regulation of the alternative investment fund manager rather than the fund vehicle itself [...]’ Financial Services Authority, 2011:2.
would have a negative impact on London. It had been expected earlier in the 2000s that Paris and Frankfurt would take business away from London but this did not happen. Indeed, no other European city is seen to be able to compete with London, at least in the medium-term, according to interviewees.

8.4.2 Regulatory bodies

There are four powerful financial regulatory bodies in the Chinese market, all firmly under the influence of the government. They operate by law and have taken inspiration from the European and US regulatory frameworks, although they have more influence over the market participants and they are still learning. They have the power to penalise offenders. If, for example, if there is a big corporate governance issue, they can suspend the licence of or close down the offending company.

There is the People’s Bank of China (PBC), which is the most powerful of the four; it regulates the monetary & finance policies. The China Securities Regulatory Commission (CSRC) regulates stocks, bonds, derivatives, asset management and the futures market. The China Bank Regulatory Commission (CBRC) regulates all retail banks and their businesses. Lastly, there is the China Insurance Regulatory Commission (CIRC), which regulates all insurance companies. They are all quite separate in their areas of work and expertise. They operate quite independently of each other but can co-ordinate. They are currently very cautious, with a lot of bad financial news coming from the EU and US, noted D_1C. Although the structure of the UK financial regulatory system is much simpler, some market participants find it overly cumbersome, while others are satisfied with the current arrangement. However, as J_U, an equity Analyst, noted, there will always be an inherent conflict between market participants and the regulators.

8.4.3 Stock Exchange

The Chinese stock exchanges are seen as credible entities and provide certification value to listed companies. However, relationships are important in this process and companies can allegedly bribe the regulator (CSRC) and the stock exchange to obtain listing approval, according to C_C and D_C. C_C added that the government is getting tougher on rogue listings, hence more companies are listing overseas in Hong Kong.

The stock exchange listings are under the direct control of the government, through the CSRC. As such, they are used to adjust economic growth. The government adjusts the flow of capital into the financial markets according to

---

their overall plan through IPO approvals, as opposed to the LSE, where market forces determine the flow of new equity to the markets.

8.4.4 Market Maturity

The markets are still immature and “insider trading is rampant in A-share listed stocks”, according to G_C. However, according to D_C, there used to be considerably more insider trading in China. This notwithstanding, insider trading is common across all three markets (Russia, India and China). However, in London this was not mentioned at all as an issue in UK markets by the interviewees.

In China, 2005 marked a turning point in the approach to regulating the markets and the authorities became more proactive in reducing insider trading, when in September 2005, the Shanghai Stock index hit it lowest point in ten years, noted D_C. Many brokerage companies went bankrupt as they were not sound and systemic risk became apparent. As a result, the regulators became more proactive in building up the reputation of the market. This was followed by three years of bull markets. However, in 2008, global financial markets experienced a downturn and the Shanghai Composite Index lost 65 percent in value, the RTS Index, Moscow, saw a 72 percent reduction in value, while Mumbai’s BSE Sensex lost 52 percent in value in 2008. In contrast, the UK and the US saw more tempered reductions in equity indices, with respectively a 31 percent drop in the FTSE 100 and a 34 percent decline in the Dow Jones index.

On the capital markets, equity is developing at a faster rate than the Chinese debt capital market. F_C observed that China still needs to work on company credit rating and soundness instruments. In fact, the debt market should overtake the IPO market in the future, stated F_C and went on to note that “the debt market is just not there at the moment”.

London is the market maker for many products and is unparalleled in Europe, only being matched by the US. Publicly traded equity responds quite well to information. However, there are periods where the price is driven away from the fundamental underlying price, according to A_U, a Chief Economist, and other interviewees.

8.5 Competitive Strategy

This section is inspired by three books on competition by Porter. Porter (1980, 1985) examined firm competition and the framework was extended to countries in Porter’s (1990) The Competitive Advantage of Nations. This section seeks to examine the rivalry within the different financial sectors, to understand the

---

47 Insider trading is known as ‘rat trading’ in China.
48 Kollewe (31 December, 2008) on the 2008 indices performances, except for India and the US.
Franklin Templeton (2009) for India and the US.
driving motivation behind the primary clients and to look at the barriers to entry. Market barriers to entry is a key variable in the econometric model constructed in Chapter 5. This examination complements and extends the analysis carried out under the Institutional Structure heading (8.4).

8.5.1 Rivalry

Banking Sectors

The investment bank sector is somewhat competitive in China. The sector is overseen and controlled by the People’s Bank of China (i.e. the Central Bank). Foreign banks are still quite restricted in their operations and cannot open fully-fledged branches in China. Moreover, foreign security firms need JVs to enter China. Goldman Sachs works with ICBC, Bank of America works with BCCB, HSBC works with BoCom and Citi works with PDB. The market is still dominated by domestic security firms.

The retail bank sector is dominated by the ‘Big Four’ state-owned listed commercial banks of China (whereas in the UK the state endeavours to leave retail banking to the private sector). It is very difficult to compete against their branch network across China, noted F, Branch Manager of an international retail chain. However, HSBC, Citi and Standard Chartered are trying to catch up by building branches at a high speed across China. The China Bank Regulatory Commission (CBRC) regulates all retail banks and their lending practises. China is currently experiencing high inflation and, to counter this phenomenon the regulator has imposed a “managed credit crunch”, where banks have quotas imposed on their lending or are told to stop all lending, according to C among others. Although, in theory, UK retail banking should be quite competitive and fluid, it may actually share some similarities with the retail bank sectors in Russia, India and China. The three countries all have a substantial state ownership in their retail banking sectors, with large entrenched banks. On the surface the UK retail banking market may appear competitive, but in fact, the markets are somewhat static. In terms of the retail banking sector, I, a Senior European Economist, observed that there is collusion among the retail segment in the UK. There are incredibly high entry costs. Although it would be great to have, say, seven Middle Eastern retail banks come into the market, but entry costs, but barriers to entry are too high. HSBC and Santander (stronger balance sheets) are currently the stronger banks that are pushing the others, though with little price difference. A, a Chief Economist, added that there is a very low propensity for households to change bank. It can be seen as a natural monopoly, from a local perspective.

High inflation was mentioned as a topical problem by several interviewees in September 2011, although official figures reported inflation of around 6 percent at the time, which has dropped to around 4 to 4.5 percent by February 2012.

---

49The Big Four are: The Agricultural Bank of China (ABC), Bank of China (BOC), China Construction Bank (CCB) and Industrial and Commercial Bank of China (ICBC).
Figure 8.2 shows official inflation figures for China between January 2008 and February 2012.

**Figure 8.2: China Inflation Rate, annual change on the consumer price index (CPI)**

B_C stated that food inflation was running at 10 percent officially but that in reality inflation was approximately 20 percent. The issue of under-stated inflation figures was highlighted by Jim Chanos, President and Founder of Kynikos Associates, who, in February 2012, noted that analysis by his company would suggest that the Chinese government is under-reporting inflation by around 4 to 5 percent per annum, in an effort to exaggerate economic growth.\(^{50}\)

8.5.2 Auditor Sector

Competition is high among the Big Four auditing firms, which all have a good reputation in China.\(^{51}\) China is a big market for them, to the extent that, for example, KPMG employ approximately 9,000 people divided over 13 offices in China. Local firms are growing as well. There are also some quite good local auditors, with much lower fees, yet good quality work. Some mid-tier audit firms have very good relationships with the government, which facilitate some issues and provide flexibility. The Big Four also recruit from the government tax department, noted C_C. Again, as rules and regulations are very fluid and non-transparent, it is essential to be well-connected with state officials in China. Other local firms provide ‘services’ as a formality and sign off on reports without asking questions, according to C_C and E_C.

The ‘A share’ IPO market (i.e., mainland China shares) is dominated by local firms due to their lower fees and greater flexibility in signing reports, noted A_C, a Manager with a Big Four auditing firm in Shanghai. This is in contrast to the FTSE 100, where all 100 companies are audited by one of the Big Four auditors.

In contrast to China’s still somewhat fragmented auditing market, the UK is decisively consolidated and represents the fact that on the international capital.

---

\(^{50}\) CNN Money, 2012, February 16.

\(^{51}\) See DeAngelo’s (1981) seminal analysis on the link between auditor size and audit quality. For a more recent analysis on the topic, see Sirois & Simunic (2011).
markets it is expected that companies use one of the Big Four auditors. Competition is high between the Big Four auditing companies. C_U, a Chief European Economist, stated that auditors cover very complex issues and that a big house is needed to manage big clients in London. As such, it is the Big Four and the rest in the UK. D_U, a Global Chief Economist, added that it is a relationship based business arrangement; banks tend to stay with the same auditors, even if they charge more. This is to say, the relationship is more important than the fees. A 2006 UK Government report summed up the key figures around the UK auditing sector:

‘The Big Four audit firms [...] audit all but one of the FTSE 100 companies, and represent 99% of audit fees in the FTSE 350. The high degree of concentration in the market became more marked after the Price Waterhouse/Coopers & Lybrand merger in 1998 (six-to-five) and the dissolution of Arthur Andersen in 2002 (five-to-four). In addition, switching rates are low (around 4% on average for all listed companies, 2% on average for FTSE 100 companies), and competitive tendering does not occur frequently.’ DTI (2006:3)

8.5.3 Brokerage Sector

The retail brokerage sector is closed to foreign entities but it is a very competitive area for the domestic players. Most Chinese security companies have a brokerage business. Banks have a huge retail client base, which means that historically they have made great profits from this activity. Indeed, the highest revenue generation for banks is retail brokerage; trading comes second. This is in contrast to most, if not all, Western markets where security trading is the largest profit generator. Hence, when a foreign investment bank forms a JV with a domestic security company, the only platform put into the JV is the investment bank (IB) function (i.e., underwriting and M&As - corporate governance advisory services). Brokerage JVs cannot be formed, “your partner will not give you this”, according to F_C.

8.5.4 Customers

Institutional Investors

Institutional investors provide approximately ¥2 trillion RMB [$3.130 billion] in liquidity, with market capitalisation of around ¥200 trillion RMB [$3.130 billion] in total between Shanghai and Shenzhen, according to D_C. D_C went on to explain that mutual funds stand out in the market, with 62 funds in total and that they constitute 10 percent of the market capitalisation. Insurance companies are the second largest segment. Both mutual funds and insurance companies trade internationally. Third in terms of size, is the National Social

---

52Exchange rate of yuan to dollar: $0.156521 USD, September 23, 2011. http://www.x-rates.com/cgi-bin/hlookup.cgi
Security Fund (NSSF), which only trades domestically.\textsuperscript{53} This is one single, although massive, fund: a legal entity. This is wholly owned by the government. The capital comes from local governments, as social security contributions from individuals. C\textsubscript{C} observed that employers contribute considerably to welfare funds in China but that these statutory contributions are not channeled to the employees. This money goes to the government and they invest it. Pension funds are quite small. However, private equity funds, although relatively new to the market, are growing at a rapid pace. In the UK market, on the other hand, there are some significantly large pension funds that are capable of moving the markets.

Shareholder activism by institutional investors is not common but, according to E\textsubscript{C}, the asset management and insurance companies, in particular, are starting to work on improving corporate governance practises. In the UK, shareholder activism is also something that institutional investors are increasingly involved with and are increasingly interested in, to the extent that shareholder activism funds are sold in the UK. Some institutional investors attend annual shareholder meetings and influence board composition and dividend payments. However, according to H\textsubscript{U}, a Managing Director, institutional investors activism often tends to happen quite quietly and less visibly.

**Retail Investors**

Retail investors go through brokers to invest in the Chinese equity market. Once the account is open, it is very popular to trade online. Some brokers provide mobiles with the required software already installed, which may be more advanced than in many other countries, even the UK. However, retail customers wishing to invest internationally have two options. They can either invest through a Qualified Domestic Institutional Investor (QDII) or move funds to an international bank account and trade through this arrangement.

The Qualified Domestic Institutional Investors (QDII) are local asset management companies that raise money from domestic investors and invest abroad.\textsuperscript{54} Local investors buy structured products from them. There are index funds, equity funds and fixed income funds, but investors cannot buy specific stock such as Apple, Inc. The quota is $50,000 to invest per person per year. So, if you are a couple with two children, you can invest up to $200,000 per year. If you move your currency abroad, you can buy specific stocks and trade online, although the same quote applies.

There is also a third option, according to C\textsubscript{C} amongst others. People physically bring large amounts of RMB to Hong Kong and open a brokerage account there. Is it illegal but the law is not enforced. Moreover, there is a large underground Chinese banking sector that can facilitate cash transfers.\textsuperscript{55} First, you tell

\textsuperscript{53}National Social Security Fund (NSSF): http://www.ssf.gov.cn/Eng_Introduction/

\textsuperscript{54}Qualified Domestic Institutional Investor (QDII): See China Knowledge for an overview of the current institutional investors www.chinaknowledge.com/Finance/QDII.aspx

\textsuperscript{55}China is a cash driven society. Cars are bought with cash and driven out of the showroom,
people in China what you need in terms of cash. You then go to Hong Kong and
the cash is given to you there. Subsequently, the cash is deducted against your
Chinese bank account.\footnote{Interviewee C\textsubscript{C}, 2011.} Lopez (2011) reports that the Chinese government
estimates that the underground banking system totals $400 billion. However,
Lopez quote Societe Generale economist Wei Yao, as estimating the figure to be
around $470 to $627 billion. Allen, Qian & Qian (2005) note that China defies
finance, law, institutions, and growth theory by experiencing high growth in
the private sector, despite weak banking and judicial frameworks. They suggest
that alternative financing channels may partly explain this discrepancy.\footnote{cf Ayyagari, Demirgüç-Kunt & Maksimovic (2008).}

Qualified Foreign Institutional Investors (QFII) are used by foreign indi-
viduals as they cannot invest directly in China.\footnote{Interviewee C\textsubscript{C}, 2011.} H-shares (Hong Kong) are
freely traded and not restricted in terms of market participation. SAFE (State
Administration of Foreign Exchange), which comes under the Central Bank,
awards quotas to big financial institutions (such as Citi Bank, Morgan Stanley,
UBS etc.), commercial and investment banks. For example, Citi could be given
a $2 billion quota. It would then structure products around this allocation and
raise money in Europe and the US among retail investors.

Across Russia, India and China, it was often mentioned that local retail
investors were not skilled in the financial markets and that they either followed
advise blindly or saw the stock market as a pure gamble. In the UK, the picture
is more nuanced. Interestingly, financial sophistication may be very high in
the UK, according to I\textsubscript{U}. People speculate a lot on interest rates on their
mortgages. However, on the other hand, there is also “spread betting” where
bets are place on financial developments. It is basically a ‘future’. Nine out
of ten investors/speculators lose money on this, noted I\textsubscript{U}. Retail activism is
limited. Most retail investors do not even go to the AGMs anymore to make
their voices heard.

8.5.5 Suppliers

There would seem to be a good mixture of companies seeking to list. For
example smaller startup companies with venture capitalists involvement. SOEs
only list a small part of the company, which may relate to activism, suggested
D\textsubscript{C}, who continued by noting that shareholders have no say in the running of
these companies. Transparency is often an issue. State-owned companies “will
tell you what they want to tell you” according to B\textsubscript{C}. In the UK on the other
hand, the rules and regulations are evenly applied to all (issuing) companies.

By law, once a company seeks to list, it will need to be transparent. However,
there are issues. As C\textsubscript{C} noted, “some things can be manipulated internally (e.g.,
sales), there is a bias in the judicial system, bias in auditors, a lot of biases to
turn a weak company into a fantastic looking company; hence I do not personally

\begin{itemize}
  \item noted C\textsubscript{C}. Credit is still not common.
  \item cf Ayyagari, Demirgüç-Kunt & Maksimovic (2008).
  \item Qualified Foreign Institutional Investor (QFII): See China Knowledge for an overview of
the current institutional investors: www.chinaknowledge.com/Finance/QFII.aspx
\end{itemize}
invest in China,” concluded $C_C$.

### 8.5.6 Potential entrants

China still has highly regulated markets with regulatory barriers to entry. It is very difficult to get a banking or securities licence in China, although membership of WTO in 2001 has helped open up the sectors.$^{59}$ Potential entrants need to deal with regulators and local governments for licences and it is determined on a case-by-case basis, explained $F_C$, depending on the type of licence and the region. The stages for a foreign bank to enter China are as follows: First they open a representative office (which is mostly a symbolic entity in the country), next a branch can be opened, followed by reaching certain trade/volume size, then a “Local Incorporated Bank Licence” can be obtained. Once a the general licence is secured, you still need licences for all your products. It is very difficult to compete with local banks that have many branches, developed systems and distribution channels. Local banks also have a huge retail base, so have access to cheap funds. Foreign banks, on the other hand, have wholesale funding. Moreover, state owned banks have considerable domestic market power. However, foreign entities are well placed for cross-border services in either direction, which also ties in with London. Several interviewees note that London acts as a global pool of expertise. The financial or legal expert working on a project may be based in London but their clients are based overseas.

China seems to be opening the market in stages after the WTO agreement, realising that they need foreign expertise to bring their markets up to an international standard, observed $C_C$. As mentioned in Chapter 6, the Shanghai Stock Exchange is planning to launch an “International Sector”, so international companies can list in China. HSBC may be the first to list, suggested $D_C$. The stock exchange tried to launch the sector in 2011 but it has now been postponed and is expected to happen in 2012. The motivation for this project is to bring in foreign companies to improve corporate governance locally.

Chinese consumers tend to trust well-known foreign entities more as they assume that international companies are following the rules and regulations. “People view foreign brands as better”, but advertisement is needed, as $C_C$ observed. This perception extends to basic necessities as well. After the contaminated milk powder scandal, middle-class families buy baby milk powder directly in Japan, Hong Kong or Singapore now. Still, the educated middle-classes is smaller in China than in India and, as a result, it is projected that India will grow more over the next 20 years, due to the growth fulfilled by their middle class consumers.$^{60}$

International product penetration is currently focused on the first tier cities: Beijing, Shanghai, Dongguan and Shenzhen. Later, by the second tier cities will be the focus. They are also developing at a fast rate, noted $C_C$.

---

$^{59}$See e.g. Lin, Cai & Li (2005).

$^{60}$See Bhalla (2007) for a comparative study on the Indian and Chinese middle classes.
For domestic individual retail investors it is very straightforward to partake in the equity market. As DCo noted, there are more than one hundred brokerage firms in China now and you will see their signs on most streets.

Although large Chinese cities have embraced Western goods and brands, the stock exchanges are still closed to foreign companies wishing to list in mainland China. As a result, the Chinese equity market is still driven by local players and the state. The UK, in contrast, is famously open to foreign talent and businesses and it has welcomed foreign companies seeking liquidity and an international profile to the LSE. Especially AIM has proven a success with foreign (e.g., Russian) entities.

8.6 Conclusion

China has come a long way over the past 30 years in terms of both economic and social changes. The ‘socialist market economy with Chinese characteristics’ has resulted in an amalgamation of cultures and value systems. The nexus of power is still Beijing but it must become increasingly difficult to balance this unique system.

China has benefitted immensely from manufacturing of low value added export goods over the past decades. Joint ventures with foreign companies have provided a significant inflow of technology, know-how, ideas and foreign talent and moving workers from agriculture into manufacturing netted considerable productivity gains. However, in the future China will need to rely more on knowledge intensive sectors. It will need to innovate more as it will has exhausted its options to easily promote growth. Today, China’s business environment is a facsimile of the Western business model. The framework is in place but the substance is missing. It will need to profoundly change its approach to corporate governance. Transparency and accountability will need form an integral part of this process.

The latest five year plan endeavours to rebalance the economy more toward domestic demand driven growth and to address some of the inequalities that have arisen over the past decades through ‘inclusive growth’ initiatives. The Chinese government has become more proactive in punishing corruption and information is flowing more freely within the country. However, to move to the next stage of development may prove more difficult for the country.
Part IV

Conclusion, References and Appendices
Chapter 9

Conclusion

The 2008 global financial crisis highlighted the interconnectedness of financial markets across the world, it reminded us of the fragility of the financial systems as we witnessed unprecedented market volatility and, as Stiglitz (2010) notes, it exposed shortsighted and risky corporate behaviour. 1 This thesis is concerned with the efficacy of markets and it uses global IPO underpricing data as a barometer for corporate governance failure. Part II of this thesis was a quantitative data analysis, which notably identified Russia, India and China as outliers in the IPO data set. 2 Part II also identified a number of variables that influence cross-country IPO underpricing. This was accomplished by using exploratory data analysis and econometric modelling. As this thesis made use of the multiple method approach, where qualitative and quantitative analyses are combined in synergy, the qualitative analysis in Part III built upon and extended the framework established through the quantitative analysis (Part II) by further exploring the variables on the ground in Russia, India and China. The fieldwork made use of four key overarching sections: globalisation, corporate governance, institutional structure and competition strategy in Russia, India and China. This comparative work was subsequently benchmarked against the UK.

The benefit of using a multi-methods approach can be summarised as follows: ‘With a multi-methods approach, the limitations of one method can be overcome through the use of another’ (Buchanan, Chai & Deakin, 2012:ch 2). The analysis carried out in Part II of the thesis provided us with a number of variables that on a cross-country level related to corporate governance within an economic, demographic and institutional framework. However, to more fully understand the specific impact of the variables on corporate governance practices in Russia, India and China it is necessary to conduct fieldwork in these countries.

---

1 See e.g. Kishan & Kearns (2011) on record market volatility in the US market.
2 IPO data obtained from Loughran, Ritter & Rydqvist (2008).
9.1 Overview and key findings of Thesis: Chapters 2-8

Chapter 2 of the thesis reviewed some key literature on market efficiency and corporate governance. The market efficiency literature posits that arbitrage should counteract market inefficiencies. Efficient markets should impose pricing discipline on equity. However, that is not to say that all markets are efficient. Laffont & Maskin’s (1990) paper, for example, which analyses imperfect competition and the efficient market hypothesis (EMH), suggests that insider trading can render markets inefficient. Interviewees in both Russia and China noted that insider trading is common in these countries. Moreover, Malkiel (2006) specifically argues that China is not an efficient market. In India insider trading was not highlighted as an important issue; nonetheless, India has experienced a number of trading scandals after the early 1990s liberalisation of the financial markets and it is still a somewhat immature market.

Corporate governance, going back to Adam Smith (1776) and the inception of agency problems, still remains an important area of research. The 2008 financial crisis exposed poor corporate governance practises in even the most mature and developed of financial markets, namely, the US and the UK. However, the crisis was not restricted to only mature financial markets. As the world has become increasingly globalised and interconnected, the financial crisis spilled over into the emerging markets. The devastating effect of this occurrence was most evident in Russia (Moscow), where capital flight in 2008 resulted in a significant loss of jobs in the financial sector, property prices fell and the retail market contracted. India and China also experienced the repercussions of the global financial crisis in their financial markets, however, both countries were somewhat insulated from the shock. India still employs protectionistic policies in its financial sector, limiting foreign participation. Moreover, mainland China’s A-share market is heavily restricted to foreign investors and is directly controlled by the Chinese government. Yet both countries experienced a contraction of their equity markets as, for example, exports dropped and external corporate borrowing channels were reduced. Moving forward in the wake of the crisis, corporate governance issues will undoubtedly remain high on the policy agenda. However, as we are seeing increased globalisation and the emergence of more multinational companies (often through joint ventures (JVs) in Russia, India and China), the question remains as to whether the next phase of corporate governance will become a ‘race to the bottom’ or a ‘race to the top’ in country convergence. Gugler, Mueller & Yurtoglu (2004) suggest that cross-country competitive forces may result in a ‘race to the bottom’, where managers seek countries with weak corporate governance which would allow them to pursue their own agenda. On the other hand, Hansmann and Kraakman’s (2001) argue that the shareholder-oriented model is becoming the norm and that this model will have spillover effects into policy making, which in turn will ensure that corporate governance will converge on this model in law making and in practice. However, Clarke (2011) finds that despite repeated warnings about poor corpo-
rate governance practices in Russia and China, Western companies continue to invest in these countries. It may be that if the risk premium is sufficiently high, poor corporate governance practices are not a primary concern when companies look to expand internationally.

In covering some of the key corporate governance literature, Chapter 2 also provided us with a brief analytical framework which can be applied to the fieldwork findings in Russia, India, China and United Kingdom. Chapter 2 considers some of the functions and ideals associated with corporate social responsibility (CSR), and it outline internal and external corporate governance controls. However, as we will discover and discuss in Part III of the thesis, the best practices and corporate governance dynamics outlined in Chapter 2 do not always apply on the ground. For example, as covered in Chapter 6, The Russian Bear, CSR may be used as a front for asset stripping.

Chapter 3 marked the start of Part II of the thesis, which encapsulates the quantitative analysis. In particular, Chapter 3 reviewed some key empirical and theoretical literature contributions to IPO underpricing. The emphasis, reflecting the thesis as a whole, is on the empirical evidence. To recall, IPO underpricing ($Undpri$) is normally calculated as the percentage difference between the price the issuing company sells at (the offer price) and the following market price (normally taken as the share price after one day of trading).

When looking at IPO pricing behaviour over an extended period in the US, Ritters (2012) divides the 1980 to 2011 time period into the sub-periods 1980-1989, 1990-1998, 1999-2000 and 2000-2011. For these subperiods, IPO underpricing was found at 6.1 percent, 13.0 percent, 51.4 percent and 11.5 percent, respectively. These price fluctuations (with the exception of the 1999-2000 period) place the US among the countries with modest average IPO underpricing, as will become evident in Chapter 4. We in fact argue, in Chapter 4, that the US with deep, mature and robust markets may provide us with an international benchmark. The benchmark can serve as an indicator against which other country results can be examined to determine whether they are experiencing abnormal IPO pricing. However, the 1999-2000 period proved to be exceptional, in terms of US IPO underpricing. The dot-com bubble of 1999-2000 saw excessive IPO underpricing. Chapter 3 provides a number of explanations why this happened. We conclude on the basis of the reviewed literature that it may have been ‘the perfect storm’, caused by investment banks becoming less careful in pricing IPOs in the pursuit of higher profits, at the same time as a number of schemes were introduced that gave banks and managers incentives to purposefully underprice the issues. Moreover, retail investors may have driven up the prices in the secondary market due to overenthusiastic buying behaviour.

Chapter 3 also highlighted the potential agency problems that exist between the issuing company, the investment bank and the investors. This relationship was explored further within the bookbuilding pricing mechanism framework. Bookbuilding is today the most commonly used IPO mechanism, according to

---

$Undpri = \frac{\text{Issue price} - \text{Closing price of first day of trading}}{\text{Issue price}} \times 100.$
Jagannathan & Sherman (2006), and is used in Russia, India, China and the UK. However, the dynamics governing this widely used tool are complex and open to manipulation. The process most certainly relies on strong corporate governance standards and transparency to ensure fairness for all participants. We discussed the motivations of the different agents in the IPO markets, and noted that Russia, India and China all struggle with ensuring transparency during and after the IPO process. Moreover, across all three countries, retail investors are in general lacking the skills to make informed investment decisions, which places more emphasis on the ethical behaviour of mediators (e.g., brokers). However, notwithstanding this, as we see ever increasingly complex derivatives and financial instruments that even financial experts do not fully understand, investors in the UK may not fully appreciate the risk that they undertake when entering the financial markets either. These issues were discussed in more depth in Part III.

Considerations on the motivation and skills of the market participants led into our review of three key theoretical asymmetric information models (Rock (1986), Beatty & Ritter (1986) and Chowdhry & Nanda (1996)). In this stylised environment we discussed the paramount role of information flows in the pricing of IPOs. Moreover, the theoretical framework provided us with a tool to better assess the ‘noisy’ financial markets we will discuss in more detail in Part III.

Chapter 4, which is an exploratory data analysis (EDA), examined Loughran, Ritter & Rydqvist’s (2008) country IPO average underpricing data set and relates it to Dreher’s (2006) KOF Index of Globalization. However, firstly we focused solely on the average IPO underpricing data. From Table 4.1 it was possible to make a number of observations in regard to country groupings and IPO activity level. For example, it was clear to see that Russia (4.2 percent for 1999-2006) on one hand, with India (92.7 percent for 1990-2007) and China (164.5 percent for 1990-2005) on the other hand, represent the two extreme ends of the underpricing scale. This is a key observation for this thesis. We argued that average underpricing at both ends of the scale represent market inefficiencies in the allocation of resources. It is intriguing why these three countries, which have a number of things in common (e.g., transiting from socialistic/Marxist regimes, they are all large emerging economies, with immature financial markets), are seemingly driven by different market dynamics and corporate governance issues. In this context we carried out further country analysis in Chapters 4 and 5, to identify a number of variables that influence cross-country IPO underpricing. These variables in turn provided the basis for the fieldwork (carried out in Russia, India and China, with benchmarking against the UK) in Part III of the thesis.

We also noted in Chapter 4 that moderate underpricing may in fact be efficient. Investors looking to invest in IPOs will require to be compensated for asymmetric information (as discussed in Chapter 3) and risk bearing (e.g., liquidity risk). We posit that a possible international benchmark for ‘efficient’ underpricing may arguably be found at the US (16.9 percent average under-

---

4See for example Hoaglin, Mosteller & Tukey (1983) and Martinez, Martinez & Solka (2010) on important contributions to the EDA literature.
pricing) and the UK (16.8 percent average underpricing) data points, which are clustered together in the middle of the barchart (Figure 4.1).

Subsequently, we examined the KOF Index of Globalization in relation to average IPO underpricing. The EDA found that Iran was an outlier, which may be explained by the increased isolation the country has experienced after in began to pursue an independent nuclear programme.\(^5\) As a result, Iran was dropped from the country sample as we constructed a simple regression model, with IPO underpricing (Undpri) as the right hand variable and the KOF Index of Globalization (GloIndex) as the left hand variable. The regression found that there is a statistically significant negative correlation between IPO underpricing and globalization. In other words, as a country becomes increasingly connected to the wider global community (measured in the KOF Index through economic, social and political factors), it should experience a decline in average IPO underpricing. We argue that globalization can be used as a proxy for increased transparency, higher accountability and improved corporate governance standards. As such, a negative correlation between globalization and IPO underpricing may not be unexpected. This paper is, to the best of our knowledge, the first study to explicitly demonstrate this relationship. The globalization index variable was left out of the subsequent econometric modelling of Chapter 5. As the model was expanded in Chapter 5 to include economic, demographic and institutional factors, the globalization variable was swamped by other more dominating factors and ultimately fell out of statistical significance. It is a well know phenomenon that some factors (classically, demographic variables) can crowd out other variables. However, that is not to say that globalization is not an important variable in explaining IPO underpricing. Fortunately as we constructed this thesis around the multi-method approach, we were able to incorporate globalization into the analysis carried out in Part III. In fact, it was one of the four key sections that in their totality formed the semi-structured interview agenda which was covered in Russia (Moscow), India (Mumbai), China (Shanghai) and benchmarked against the UK (London).

Moreover, we also made use of kernel density estimates to examine potential differences in regional IPO underpricing behaviour. Most importantly the analysis suggested that both Asia and Europe were quite different from the overall group of countries. The Asian underpricing were generally found to be at the higher end of the underpricing scale, while the European underpricing distribution was found to be at the lower end of the scale. It was more difficult to draw conclusions on the distributions of the other regions. Although the kernel density estimates made for interesting reading, they did not tell us whether the distributions were statistically significantly different. To achieve this objective, we used a two-sample Kolmogorov-Smirnov test. The test strongly suggested that both Asia and Europe displayed significantly different underpricing distributions to that of the sample in general. These findings were also in accordance with the market characteristics that we explored and discussed in Part III. Europe consists of relatively mature and developed markets, whereas the Asian

\(^5\)See for example Katzman (2009) on the US’s efforts to isolate Iran from 1995 and onwards.
markets on the whole are still developing.

Chapter 5, the econometric modelling chapter, marked the last of the quantitative analysis. The econometric model established that economic, demographic and institutional variables influence cross-country IPO underpricing. In particular we determined that six variables were statistically and economically significant in influencing IPO cross-country underpricing.

The two economic explanatory variables were $PSD$ and $MCG$. The private sector development ($PSD$) variable, domestic credit extended to the private sector, was found to be positively correlated with underpricing ($Undpri$). As growth is being stimulated through the injection of credit, financial markets will expand and underpricing will become more pronounced. This relationship may partly reflect the market dynamics in India and China. Both countries have displayed impressive growth figures, but at the same time also experienced significant IPO underpricing. Market value growth ($MCG$), the ratio of nominal market value in 2001 to the market value in 1991, is found to be negatively correlated with $UndPri$. This would suggest that stronger market growth should be associated with lower underpricing. This may not be the case, as exemplified by the expansion of financial markets in Brazil, India and China. The US dot-com bubble, discussed in Chapter 3, also displayed considerable underpricing during a period of high growth. As a result, we argued that this correlation may reflect the European, the US and their satellite markets pricing data. These markets experienced significant (and stable) growth during the 1990s but at the same time avoided excessive IPO underpricing. Notwithstanding this, with an elasticity of -0.0764 calibrated for $MCG$, it displays the lowest elasticity in the regression model, which would indicate it is the least effective underpricing policy tool amongst the examined variables.

The demographic explanatory variable used in this regression model, was country population ($Pop$). This explanatory variable is positively correlated with IPO underpricing. In other words, countries with larger populations are associated with more pronounced underpricing. China and India both exemplified this relationship well, as they were to be found at the top of both the sample of average underpricing scale and they both also have the highest population figures in the world. Russia with around 143 million inhabitants, should also display significant underpricing according to this explanatory variable. However, this was of course not the case, which only increased the Russian pricing enigma and again highlighted the benefits of undertaking fieldwork to complement and expand the quantitative analysis. We argued that the population size may be related to the degree of transparency in a country since larger populations are more complex to manage. This may be the case and the fieldwork in Part III allowed us to form a more full understanding of these issues.

The institutional explanatory variables used in this regression model were $FreqRep$, $MCR$ and $FreeAltCur$. The frequency of interim corporate reports ($FreqRep$) also captured the number disclosed items and consolidation of interim reports. This explanatory variable was negatively correlated with IPO underpricing. As a country increases its accounting standards and in doing so facilitates transparency and reduces asymmetric information in the markets, it
should expect to see a decline in IPO underpricing. Minimum capital requirement as a percentage of GNI per capita to start a business (MCR) is here seen as a proxy for barriers to entry. This explanatory variable was found to be positively correlated with underpricing. We argued that higher barriers to entry may lead to more collusion between incumbent agents, which in turn may translate into higher underpricing. Freedom to use alternative currencies (FreeAltCur) was used as a proxy for the availability of money in the economy, the openness and efficiency of an economy. FreeAltCur was found to be negatively correlated with IPO underpricing. As an economy becomes increasingly open, it can for example adapt more efficient corporate governance controls.

The three highest calibrated elasticities were from MCR, PSD and FreqRep. That indicated that in terms of influencing country IPO underpricing, policy makers would find the most leverage from using these three variables. However, all six variables have a direct influence on IPO underpricing and can be used as valid policy tools.

However, to more fully understand the dynamics behind the variables discussed in Chapter 4 and 5 and to investigate how they specifically apply to Russia, India and China, with benchmarking against the UK, it was necessary to conduct fieldwork in each of their financial centres, that is, in Moscow, Mumbai, Shanghai and London. As we outlined in Chapter 1, this was in accordance with the mixed method approach. In short, the quantitative analysis carried out in Part II of the thesis, gave rise to and substantiated the qualitative analysis carried out in Part III.

Chapter 6, The Russian Bear, was the first of the three chapters outlining the fieldwork findings. In this Chapter found that Russia is facing significant corporate governance and transparency issues. Almost all large privately owned companies are held offshore and the ownership structure is often not publicly known. According to the Russian investment bank, VTB Capital, the two primary reasons for this arrangement is to obtain greater legal protection and obscure the ownership structure. The lack of rule of law in Russia was one of the main concerns raised by interviewees. As one interviewee noted, it is difficult to be an honest auditor in a corrupt environment. However, this statement can arguably be extended to any business sector. As such, the onus is companies to choose their business partners with great care. Moreover, and also as a comment on the English legal system, when companies invest into Russia, the sale and purchase agreements are often drafted under the English law structure (and London courts are used to settle disputes). The fieldwork also highlighted the benefit of ‘going behind the figures’ by extending the quantitative analysis. For example, interviewees noted that Russian inward FDI is often disguised domestic funds returning to the country.

However, there were also some encouraging corporate governance signs in Russia. There is an increased focused on the importance of independent directors (with some state initiatives). Although, for now, most directors may be independent in name only, it is a step in the right direction. In addition, politicians were ‘saying all the right things’ according to interviewees, but interviewees were waiting to see concrete action. However, as long as Russia,
the world’s largest oil producer today, can balance its state budget through oil revenues, there seems to be little impetus to implement substantial economic reforms that can move Russia away from its economy’s dependence on oil.

We observed in Chapter 4 that the Russian IPO market (4.2 percent for 1999-2006) was notable for its lack of activity and its very modest underpricing level. The Russian pricing behaviour did not conform with the notion that, in an efficient market, investors should be rewarded according to the level of risk they were willing to incorporate into their portfolio. As documented, Russian corporate governance issues are severe and yet investors earned an average of 4.2 percent on IPOs during the period 1999 to 2006. This thesis argued that Russia’s oil fortune, coupled with its ‘managed democracy’, has to some extent sidelined traditional market forces. The Russian elite, who are the ultimate owners of issuing companies, are not dependent on financial markets, rather they rely on personal connections.

Chapter 7, The Indian Tiger, found that the Indian government was suffering from significant inertia. A number of high-profile political corruption scandals, on both local and national levels, combined with a fragile government coalition, has somewhat paralysed the decision process of the country. India has transformed significantly since its ‘gradualism’ reform programme was introduced in the early 1990s (in sharp contrast to the Russian ‘shock therapy’ approach). India now has a relatively free press that plays an active part in functioning as part of the external corporate governance mechanism. Moreover, India recently opened the door more to the entry of foreign retailers into India, which was found to be another encouraging development. However, Chapter 7 found that the state is still significantly interfering with market forces, for instance by imposing sector lending requirements on banks. Interestingly, although the Indian financial regulators significantly restrict the market participants and impose state objectives on the industry, it was found that they were held in high esteem by market participants. It was evident from the analysis carried out in Chapter 7 that India still has some way to go before it has fully embraced the concept of a free market economy. India still to some extend empowers the ‘license-permit-quota raj’ (Rodrik & Subramanian, 2004:3).

The Indian IPO market experienced significant underpricing, 92.7 percent on average, from 1990 to 2007. Based on the fieldwork evidence, this thesis would argue that the pronounced mispricing of the IPOs may be the result of an immature, inexperienced and somewhat thinly traded IPO market during that period. Although India has an impressive number of listed companies, many are not genuinely traded companies. They were vanity listings - something that used to be a common motivation behind listings in London, according to one senior finance interviewee in the UK.

Chapter 8, The Chinese Dragon, found that China has transformed significantly over the past 30 years, both economically and socially. However, it has been on its own conditions. The ‘socialist market economy with Chinese characteristics’ has proven immensely effective in generating significant and consistent growth over a long period. However, as noted in Chapter 8, some observers are sceptical about the official Chinese growth figures. Notwithstanding this,
the transformation of the country has been rapid and profound. Beijing is the
centre of power in China, however, rules and regulations are decisively open to
interpretation. Chapter 8 found that this lack of clarity empowers local offi-
cials as they are tasked with interpreting the law. As one interviewee noted in
Chapter 8: "Interpretation of law is always very murky. Everything is grey."

Chapter 8 also found that China has benefited immensely from its manu-
facturing base over the past decades. China has harvested technology and ideas
through joint ventures with Western companies and it has recorded significant
productivity gains by moving workers from the agriculture sector into manu-
facturing. However, in the future the country will need to innovate to secure
future stable growth. Chapter 8 concluded that today the Chinese business en-
vironment is a facsimile of the Western business/corporate governance model.
The framework is in place, but it is far from functioning. As the economy will
eventually experience a slowdown in growth (be it a crash or a soft landing),
China will have to develop a more sustainable corporate governance approach.
It will need to promote transparency and significantly increase accountability
as it moves toward a functioning corporate governance system.

Like India, China still makes use of the five year plan. Interviewees noted
that the plan brings some certainty to the future trajectory of the country, as it
is a publicly available document. Chapter 8 found that the current five year plan
is aiming to rebalance the economy towards domestic demand driven growth and
to promote inclusive growth. It will be a significant challenge to reengineer the
Chinese economy in the endeavour to achieve the new growth agenda. Chapter 8
also found that Chinese government has become more proactive in its attempts
to reduce corruption. However, it will not be an easy task to accomplish change
in this area. As interviewees noted in China, corruption may not be seen as
ethically wrong by many locals.

The mainland China IPO market experienced the most pronounced degree of
underpricing in the country sample, with average underpricing of 164.5 percent
from 1990 to 2005. Based on the fieldwork evidence, this thesis posited that it
may be partly explained by government intervention. The Chinese government
directly controls the flow of new companies onto the stock exchanges (IPOs),
like a tap. Moreover, the government, through the financial regulators, also has
to approve the offer price. It may be that the significant underpricing arose
as a result of the restricted flow of companies, artificially set IPO prices (not
necessarily demand based) and overenthusiastic retail investors who saw the
participation in (often SOEs i.e., the state) IPOs as a ‘safe bet’ no matter the
price.
9.2 Potential Research Extensions

In 2001, Jim O’Neill, Head of Global Economic Research at Goldman Sachs, published a report titled ‘Building Better Global Economic BRICs’. This report marked the inception of the BRIC country grouping (Brazil, Russia, India and China). The report emphasised the significant size of the four economies and their considerable growth potential. On this basis the report concluded that policymaking forums (e.g., the G7) should include these economies. Moreover, the OECD produce research and policy recommendations on the BRIICS (where Indonesia and South Africa are included).

This thesis focused on Russia, India and China, due to their somewhat similar past market forms but different growth trajectories according to their respective average IPO underpricing performance. However, as noted in Chapter 4, Brazil with 48.7 percent IPO underpricing (1979 - 2006) is only three countries removed from India in Table 4.1. Despite not sharing the socialist/Marxist backgrounds of the countries examined in this thesis, it would be very interesting to extend this research framework to include Brazil. Sally (2009) notes that Brazil since the mid-1990s has prioritised macroeconomic stability over trade liberalisation and attracting FDI. As Brazil becomes more integrated into the world economy, its corporate governance standards will become increasingly important to the wider world community. The research framework of this thesis could readily serve this objective.

As we experience increased globalisation and emerging markets become more outward looking, improved corporate governance standards across the world are arguably required to ensure that investors can make informed buying decisions. This applies equally to investors looking to invest directly in overseas markets as it does to individuals looking to buy into the FTSE 100. Finance and business have become global. Undoubtedly, caveat emptor will remain an essential requirement in any financial market, but corporate governance policies will have to facilitate increased transparency and accountability across both developed and emerging markets. A corporate governance paradigm shift is required to ensure sustainable and inclusive growth. However, this applies not only in emerging markets, but as recent events have illustrated in the US and UK, even the paragon markets of finance will need to reexamine their corporate governance framework. Indeed, it would seem that the lessons that should have been learnt from the excessive risk taking behaviour leading up to the 2008 crisis have at present not been learnt.

---

6See for example Sally's (2009) OECD report on ‘Globalisation and the Political Economy of Trade Liberalisation in the BRIICS.’

7 Caveat emptor is here used in its wider meaning, not as a legal term.
Bibliography


210


[71] Brown R. (1828) A brief account of microscopical observations made in the months of June, July and August 1827 on the particles contained in the pollen of plants; and on the general existence of active molecules in organic and inorganic bodies, *Philosophical Magazine*, 4, 161


219


224


[226]


228


229


231
York Times, July 24 [Online] [Accessed 20 January 2012] Available at:
=all

[287] Li, X., Harrilla, R., Uysalb, M., Burnette, T. & Zhana, X. (2009) Esti-
mating the size of the Chinese outbound travel market: A demand-side
approach, Tourism Management, 31:2, 250–259


and Economic Reform, Hong Kong: The Chinese University Press

[290] Lintner, John (1965) The valuation of risk assets and the selection of risky
investments in stock portfolios and capital budgets, Review of Economics
and Statistics, 47:1, 13-37

pricing in China, Royal Institute of International Affairs, China Project
Report No. 4, SSRN [Online] Available at:

ning, Review of Financial Studies, 23:5, 2024-2059

[293] Liu, X. & Ritter, J.R. (2011) Local underwriter oligopolies and IPO un-

bok of Corporate Finance: Empirical Corporate Finance, Oxford: Else-
vier, Ch 7

gration in Primary Equity markets: the Role of U.S. Banks and U.S.
Investors. Review of Financial Studies, 16:1, 63-99


Bubble, Journal of Finance, 58:2, 723-752

The Adaptive Markets Hypothesis, Journal of Investment Consulting, 7:2,
21-44


234


235


236


241


243


245
Appendix A

Semi-Structured Interview Schedule (SSI 2011)
Semi-structured interview agenda

Name of the interviewer: .................................................................

Interviewee code: .................................................................

Date of the interview: ...............................................................

Time interview started: ............................................................
Pre-amble

Thank you for agreeing to take part in this interview. Your information will be treated in the strictest of confidence and I will not attribute any comments to specific named individuals, unless I have their specific approval. This interview will have some structure to it, as I have a pre-set number of areas that I would like to cover with you. These areas all cover aspects surrounding your country’s position within the wider global context.

Scotland, with for example Adam Smith and Andrew Carnegie, has a long and distinguished record in being at the forefront of market analysis. This work will endeavour to build on this knowledge.

Where ever possible please provide quantitative backing to any statement you make. This interview is broken down into subsections, with a number of headings. To give you a general idea of the outline of this interview, please consult the provided agenda.

*Please note that you are free to terminate this interview at any stage or decline to comment on any questions, if so desired.*

[Hand respondent the agenda outline overleaf]
Agenda outline

1 Globalisation
1.1 Economic Effects on Market Functions
1.1.1 Relative Importance of Actual Flows
1.1.2 Relative Importance of Restrictions
1.2 Social Effects on Market Functions
1.2.1 Relative Importance of Personal Contact
1.2.2 Relative Importance of Information Flows
1.2.3 Relative Importance of Cultural Proximity
1.3 Political Effects on Market Functions

2 Corporate Governance
2.1 Stakeholders
2.1.1 Internal Stakeholders
2.1.2 External Stakeholders
2.2 Corporate Social Responsibility
2.3 Business Ethics
2.4 Enforcement & Control
2.5 Corporate Governance and Firm Performance
2.6 Mergers and Acquisitions and Initial Public Offerings

3 Institutional Structure
3.1 Market Influence by the State
3.2 Regulatory bodies
3.3 Stock Exchanges
3.4 Market Maturity

4 Competitive Strategy
4.1 Rivalry
4.1.1 Banking Sectors
4.1.2 Auditor Sector
4.1.3 Brokerage Sector
4.2 Customers
4.2.1 Institutional Investors (dominant and/or active)
4.2.2 Retail Investors (process to invest in the markets?)
4.3 Suppliers (issuing companies)
4.4 Potential entrants
4.4.1 Investment Banks, Auditors and Brokers
4.4.2 Issuing companies
4.4.3 Investors
Agenda outline

1 Globalisation
1.1 Economic Effects on Market Functions
   1.1.1 Relative Importance of Actual Flows
   1.1.2 Relative Importance of Restrictions
1.2 Social Effects on Market Functions
   1.2.1 Relative Importance of Personal Contact
   1.2.2 Relative Importance of Information Flows
   1.2.3 Relative Importance of Cultural Proximity
1.3 Political Effects on Market Functions

2 Corporate Governance
2.1 Stakeholders
   2.1.1 Internal Stakeholders
   2.1.2 External Stakeholders
2.2 Corporate Social Responsibility
2.3 Business Ethics
2.4 Enforcement & Control
2.5 Corporate Governance and Firm Performance
2.6 Mergers and Acquisitions and Initial Public Offerings

3 Institutional Structure
3.1 Market Influence by the State
3.2 Regulatory bodies
3.3 Stock Exchanges
3.4 Market Maturity

4 Competitive Strategy
4.1 Rivalry
   4.1.1 Banking Sectors
   4.1.2 Auditor Sector
   4.1.3 Brokerage Sector
4.2 Customers
   4.2.1 Institutional Investors (dominant and/or active)
   4.2.2 Retail Investors (process to invest in the markets?)
4.3 Suppliers (issuing companies)
4.4 Potential entrants
   4.4.1 Investment Banks, Auditors and Brokers
   4.4.2 Issuing companies
   4.4.3 Investors
1 Globalisation

1.1 Economic Effects on Market Functions

1.1.1 Relative Importance of Actual Flows

Probe on:

- Trade
- Foreign Direct Investment, flows
- Foreign Direct Investment, stocks
- Portfolio Investment
- Income Payments to Non-Nationals

Field notes:

Summary notes:
1.1 Economic Effects on Market Functions
  1.1.2 Relative Importance of Restrictions

  Probe on:
  Hidden Import Barriers
  Mean Tariff Rate
  Taxes on International Trade
  Capital Account Restrictions

Field notes:
1.2 Social Effects on Market Functions
   1.2.1 Relative Importance of Personal Contact

   Probe on:
   Telephone Traffic
   Transfers
   International Tourism (abroad and domestically)
   Foreign Population
   International letters/emails

Field notes:

Summary notes:
1.2 Social Effects on Market Functions
   1.2.2 Relative Importance of Information Flows

   Probe on:
   Internet Users
   Television
   Trade in Newspapers

Field notes:

Summary notes:
1.2 Social Effects on Market Functions
  1.2.3 Relative Importance of Cultural Proximity

  Probe on:
  Growth of Foreign Retail Chains \textit{in General}:
  e.g. Number of McDonald’s Restaurants
  e.g. Number of IKEAs
  e.g. \textit{Number of Apple Stores}
  Trade in \textit{imported} books

Field notes:

Summary notes:
1.3 Political Effects on Market Functions

Probe on:
Embassies in Country
Membership in International Organisations
Participation in U.N. Security Council Missions
International Treaties

Field notes:

Summary notes:
2 Corporate Governance
   2.1 Stakeholders
      2.1.1 Internal Stakeholders

              Probe on:
          Employees (involvement in daily decisions and job prospects)
          Managers (accountability and job prospects)
          Owners (structure, e.g., flat or hierarchal)

Field notes:
2.1 Stakeholders
   2.1.2 External Stakeholders

   Probe on:
   Customers (consumer protection)
   Suppliers (legal protection)
   Lenders/Creditors (legal protection)
   Unions (influence)
   Government (influence)

Field notes:

Summary notes:
2.2 Corporate Social Responsibility

Probe on:
- Recruitment/Retention of staff
- Risk Management (e.g., environmental or corporate behaviour issues)
- Brand Differentiation (e.g., competitive advantage)
- License to Operate (e.g., promote diversity or the environment)

Field notes:
2.3 Business Ethics

Probe on:
Are corporate scandals publicised and discussed?
Some companies seek competitive advantages through unethical means?
Is the state proactive in reducing this behaviour?

Field notes:

Summary notes:
2.4 Enforcement & Control

Probe on:
Internal Corporate Governance Controls (e.g., audits)
External Corporate Governance Controls (e.g., divulging financial statements, media scrutiny and managerial labour market vs. golden parachutes)
Enforcement

Field notes:

Summary notes
2.5 Corporate Governance and Firm Performance

Probe on:
Board Composition
Remuneration/Compensation

Field notes:

Summary notes:
2.6 Mergers and Acquisitions and Initial Public Offerings

- Probe on:
  - Frequency
  - Motivation (e.g., asset raids, diversification, complementary or empire building)
  - Takeover Defences (e.g., firm/state level: poison pill, golden parachute, supermajority rules, staggered boards/freeze-out, fair price, poison pill endorsement laws, control share acquisition and constituency)

Field notes:

Summary notes:
3 Institutional Structure

3.1 Market Influence by the State

Probe on:
Is market regulation a topical political issue?
Proactive or reactive in regulating the markets?

Field notes:

Summary notes:
3.2 Regulatory Bodies

Probe on:
(Seen as) Independent?
Operate by law or voluntary code of conduct?
Power to prosecute criminal or civil cases?
Seen as a positive force by market participants?

Field notes:

Summary notes:
3.3 Stock Exchanges

Probe on:
Seen as credible entities? Certification value?
Openness to entry?
Disseminating information fairly/publically?

Field notes:

Summary notes:
3.4 Market Maturity

Probe on:
Market efficiency (Is the market efficient? Why and how? e.g., Pareto efficient, consumer/producer surplus driven or arbitrage-free condition?)
Companies listings (e.g., maturity, size, sector and nationality)

Field notes:

Summary notes:
4 COMPETITIVE STRATEGY

4.1 Rivalry

4.1.1 Banking Sectors

Probe on:
Degree of competitiveness within the Investment Bank sector?
Degree of competitiveness within the Retail Bank Sector?
Conflict of interest issues? (e.g., sell side analysts recommendations)

Field notes:

Summary notes:
4.1 Rivalry
  4.1.2 Auditor Sector

  Probe on:
  Degree of competitiveness within the Auditing sector?
  Seen as independent to audited company?
  Conflict of interest issues? (e.g., provide consulting services to the same clients)

Field notes:

Summary notes:
4.1 Rivalry
    4.1.3 Brokerage Sector

    Probe on:
    Degree of competitiveness within the Brokerage sector?
    Affiliations (independent, retail or investment side)
    Conflict of interest issues? (e.g., serve/owned by a specific bank)

Field notes:

Summary notes:
4.2 Customers
   4.2.1 Institutional Investors (dominant and/or active)

   Probe on:
   Predominant entities?
   High profile in the markets?
   Trade on foreign exchanges?
   Activism? (Do they exercise their rights as shareholders?)

Field notes:

Summary notes:
4.2 Customers
4.2.2 Retail Investors (process to invest in the markets?)

Probe on:
Primary way of interacting with the markets?
General level of financial sophistication?
Trade on foreign exchanges?
Activism? (Do they exercise their rights as shareholders?)

Field notes:

Summary notes:
4.3 Suppliers (issuing companies)

Probe on:
Ownership structure?
Transparency?
Competitiveness in archiving listing?

Field notes:

Summary notes:
4.4 Potential entrants

4.4.1 Investment Banks, Auditors and Brokers:

Probe on:

- Openness of the markets? (to domestic and foreign entities)
- Openness of the domestic participants? (to domestic and foreign entities)

Field notes:

Summary notes:
4.4 Potential entrants
  4.4.2 Issuing companies

  Probe on:
  Openness of the markets? (to domestic and foreign entities)
  Openness of the domestic participants? (to domestic and foreign entities)

Field notes:
4.4 Potential entrants
    4.4.3 Investors

    Probe on:
    Openness of the markets? (to domestic and foreign participants)

Field notes:

Summary notes:
Appendix B

Semi-Structured Interview Agenda
Semi-Structured Interview Agenda

1 Globalisation

1.1 Economic Effects on Market Functions

1.1.1 Relative Importance of Actual Flows
Probe on:
- Trade
- Foreign Direct Investment, flows
- Foreign Direct Investment, stocks
- Portfolio Investment
- Income Payments to Non-National

1.1.2 Relative Importance of Restrictions
Probe on:
- Hidden Import Barriers
- Mean Tariff Rate
- Taxes on International Trade
- Capital Account Restrictions

1.2 Social Effects on Market Functions

1.2.1 Relative Importance of Personal Contact
Probe on:
- Telephone Traffic
- Transfers
- International Tourism (abroad and domestically)
- Foreign Population
- International letters/emails

1.2.2 Relative Importance of Information Flows
Probe on:
- Internet Users
- Television
- Trade in Newspapers

1.2.3 Relative Importance of Cultural Proximity
Probe on:
- Growth of Foreign Retail Chains in General:
  e.g., Number of McDonald’s Restaurants
  e.g., Number of IKEAs
  e.g., Number of Apple Stores
- Trade in imported books

1.3 Political Effects on Market Functions
Probe on:
- Embassies in Country
- Membership in International Organisations
- Participation in U.N. Security Council Missions
- International Treaties
2 Corporate Governance

2.1 Stakeholders

2.1.1 Internal Stakeholders
Probe on:
- Employees (involvement in daily decisions and job prospects)
- Managers (accountability and job prospects)
- Owners (structure, e.g., flat or hierarchal)

2.1.2 External Stakeholders
Probe on:
- Customers (consumer protection)
- Suppliers (legal protection)
- Lenders/Creditors (legal protection)
- Unions (influence)
- Government (influence)

2.2 Corporate Social Responsibility
Probe on:
- Recruitment/Retention of staff
- Risk Management (e.g., environmental or corporate behaviour issues)
- Brand Differentiation (e.g., competitive advantage)
- License to Operate (e.g., promote diversity or the environment)

2.3 Business Ethics
Probe on:
- Are corporate scandals publicised and discussed?
- Do some companies seek competitive advantages through unethical means?
- Is the state proactive in reducing this behaviour?

2.4 Enforcement & Control
Probe on:
- Internal Corporate Governance Controls (e.g., audits)
- External Corporate Governance Controls (e.g., divulging financial statements, media scrutiny and managerial labour market vs. golden parachutes)
- Enforcement
- Moving towards international standards?

2.5 Corporate Governance and Firm Performance
Probe on:
- Board Composition
- Remuneration/Compensation

2.6 Mergers and Acquisitions and Initial Public Offerings
Probe on:
- Frequency
- Motivation (e.g., asset raids, diversification, complementary or empire building)
- Takeover Defences
3 Institutional Structure

3.1 Market Influence by the State
Probe on:
Is market regulation a topical political issue?
Proactive or reactive in regulating the markets?

3.2 Regulatory Bodies
Probe on:
(Seen as) Independent?
Operate by law or voluntary code of conduct?
Power to prosecute criminal or civil cases?
Seen as a positive force by market participants?

3.3 Stock Exchanges
Probe on:
Seen as credible entities? Certification value?
Openness to entry?
Disseminating information fairly/publically?

3.4 Market Maturity
Probe on:
Market efficiency (Is the market efficient? Why and how? e.g., Pareto efficient, consumer/producer surplus driven or arbitrage-free condition?)
Companies listings (e.g. maturity, size, sector and nationality)
4 Competitive Strategy

4.1 Rivalry

4.1.1 Banking Sectors
Probe on:
Degree of competitiveness within the Investment Bank sector?
Degree of competitiveness within the Retail Bank Sector?
Conflict of interest issues? (e.g., sell side analysts recommendations)

4.1.2 Auditor Sector
Probe on:
Degree of competitiveness within the Auditing sector?
Seen as independent to audited company?
Conflict of interest issues? (e.g., provide consulting services to the same clients)

4.1.3 Brokerage Sector
Probe on:
Degree of competitiveness within the Brokerage sector?
Affiliations (independent, retail or investment side)
Conflict of interest issues? (e.g., serve/owned by a specific bank)

4.2 Customers

4.2.1 Institutional Investors (dominant and/or active)
Probe on:
Predominant entities?
High profile in the markets?
Trade on foreign exchanges?
Activism? (Do they exercise their rights as shareholders?)

4.2.2 Retail Investors (process to invest in the markets?)
Probe on:
Primary way of interacting with the markets?
General level of financial sophistication?
Trade on foreign exchanges?
Activism? (Do they exercise their rights as shareholders?)

4.3 Suppliers (issuing companies)
Probe on:
Ownership structure?
Transparency?
Competitiveness in archiving listing?
4.4 Potential entrants

4.4.1 Investment Banks, Auditors and Brokers:
   Probe on:
   Openness of the markets? (to domestic and foreign entities)
   Openness of the domestic participants? (to domestic and foreign entities)

4.4.2 Issuing companies
   Probe on:
   Openness of the markets? (to domestic and foreign entities)
   Openness of the domestic participants? (to domestic and foreign entities)

4.4.3 Investors
   Probe on:
   Openness of the markets? (to domestic and foreign participants)
Appendix C

Fieldwork Risk Assessment Form
Form FRA 1

University of St Andrews

Fieldwork Risk Assessment Form

NOTES:
1. The associated guidance notes should be read before completing this form.
2. The completed form should be held in an accessible location within the School/Unit
3. This form has been designed to be completed as a Microsoft Word document and is available at the following URL:
   http://www.st-andrews.ac.uk/services/safety/webpages/forms/index.html

1. School/Unit
   School of Economics & Finance

2. Title of Project
   The underpricing of initial public offerings (IPOs): A cross-country analysis

3. Location of Fieldwork
   Russia (Moscow), India (Mumbai) and China (Shanghai) mentioned for all three destinations

4. Staffing at Fieldwork Site

5. Dates of Fieldwork:
   Russia (Moscow): 5\textsuperscript{th} Aug – 20\textsuperscript{th} Aug
   China (Shanghai): 16\textsuperscript{th} Sep – 3\textsuperscript{rd} Oct
   India (Mumbai): 29\textsuperscript{th} Oct – 12\textsuperscript{th} Nov

6. Brief Description of Fieldwork
   Please include in this section the objectives of the fieldwork and as much detail as is reasonably practicable about the work activity.

   My PhD is on the pricing of new company shares, also known as initial public offerings (IPOs). In particular, an IPO is when a company issues shares to the public for the first time and, in so doing, becomes a publicly traded entity. The initial pricing of these shares is fraught with uncertainty and conflict of interests. IPOs are on average underpriced, measured by the difference between the share price realised by the issuing company and the retailing price in the after-market. The conundrum of why Russia (4.2 percent underpriced), India (92.7 percent) and China (164.5 percent) differ greatly in the degree of underpricing of their IPOs, is a peculiarity that has remained unexplored. And yet it is crucial for potential investors to understand the market forces in these countries before committing funds. To further explore these issues, I will be conducting semi-structured interviews with finance professionals and regulators in these three countries. I will have some interviews booked before travelling to these destinations and hope to secure further interview opportunities through networking on location.

7. Who is at risk?
   Me
8. Hazards and Control Measures

Some risks may remain after all reasonably practicable control measures have been implemented. These are the residual risks. Please list the residual risks in the left column. In the right column estimate the “degree of residual risk” using the scale provided in the guidance notes.

<table>
<thead>
<tr>
<th>Hazards of Fieldwork Activities</th>
<th>Control Measures to eliminate or minimise the risks of the hazards</th>
<th>Residual Risk Number (1-36)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>Only use licensed taxis and busses</td>
<td>3-6</td>
</tr>
<tr>
<td>Personal safety</td>
<td>Stay in reputable hotels and not move around the cities at night</td>
<td>3-6</td>
</tr>
<tr>
<td>Illness</td>
<td>Take out comprehensive travel insurance and ensure my vaccinations are up-to-date</td>
<td>3-6</td>
</tr>
</tbody>
</table>

9. Emergency Actions

This section should detail the actions to be undertaken in the event of an emergency.

<table>
<thead>
<tr>
<th>Foreseeable Emergencies</th>
<th>Predetermined Actions by Worker</th>
<th>Predetermined Actions by Supervisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>*(Serious) Accident</td>
<td>Seek treatment (and consult Danish Embassy)</td>
<td></td>
</tr>
<tr>
<td>*(Serious) illness</td>
<td>Ditto</td>
<td></td>
</tr>
<tr>
<td>*Assault</td>
<td>Treatment, police and embassy</td>
<td></td>
</tr>
<tr>
<td>*Lose passport</td>
<td>Contact the police and Danish Embassy</td>
<td></td>
</tr>
<tr>
<td>Lose credit cards/cash</td>
<td>Keep spare cash in different location</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>Also info the university</td>
<td></td>
</tr>
</tbody>
</table>

10. Contacts

<table>
<thead>
<tr>
<th>Names of Participants in the Fieldwork</th>
<th>Telephone (Fieldwork Site)</th>
<th>E-mail (Fieldwork Site)</th>
<th>Name of Next of Kin</th>
<th>Next of Kin Tel. &amp; E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morten Dyrmose</td>
<td>077 xxxxxx</td>
<td><a href="mailto:Md284@st-andrews.ac.uk">Md284@st-andrews.ac.uk</a></td>
<td>xxxx</td>
<td>xxxx</td>
</tr>
</tbody>
</table>
Describe Any Special Arrangements for Contact with Fieldwork Site:

I will be moving around during the day, meeting people at offices. As soon as I have booked my hotel accommodation, I will transmit this information to my School (address and contact details); ensuring all relevant parties in the School will have access to this information.

<table>
<thead>
<tr>
<th>Name(s) of Local Contact at Site of Work</th>
<th>Telephone</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name(s) of Contact at School / Unit</th>
<th>Telephone</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. Insurance

Has appropriate insurance been arranged for this fieldwork?  [YES ]

If YES, give details:

I have taken out a comprehensive (one year) travel insurance policy that will cover me for the entire period of travel. It will take effect from the 1st of August 2011.

12. Fieldwork Supervisor

I am satisfied that all foreseeable significant hazards associated with the fieldwork have been identified and that the related risks are adequately controlled.

Print Name: Prof. Gavin C. Reid

Signature:  

Date: 13/6/11
13. Other Participant(s) including Undergraduates –

I hereby declare that I have read and understood this risk assessment and that I agree to comply with the control measures specified.

<table>
<thead>
<tr>
<th>Name(s)</th>
<th>Signature(s) &amp; Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>________________________</td>
<td>____________________</td>
</tr>
<tr>
<td>N/A</td>
<td>____________________</td>
</tr>
<tr>
<td>________________________</td>
<td>____________________</td>
</tr>
<tr>
<td>________________________</td>
<td>____________________</td>
</tr>
<tr>
<td>________________________</td>
<td>____________________</td>
</tr>
<tr>
<td>________________________</td>
<td>____________________</td>
</tr>
<tr>
<td>________________________</td>
<td>____________________</td>
</tr>
</tbody>
</table>

14. Approval of the Fieldwork by the Head of the School/Unit

Tick one:

☑ I hereby approve this fieldwork.

☐ I do not approve this fieldwork and reject this application.

☐ In view of the high level of residual risk, I refer this application for consideration by the University Fieldwork Sub-Committee.

In no instance should the fieldwork be approved where insurance arrangements are not satisfactory.

Print Name: Prof Rod McCrorie

Signature: ___________________________  Date: 20.6.11

---

For Completion by the University Fieldwork Sub-Committee

The University Fieldwork Sub-Committee approves / does not approve this fieldwork project.

Print Name: ___________________________

Signature: ___________________________  Date: ___________________________

(Signed by the Convenor, or nominated person, on behalf of the University Fieldwork Sub-Committee).
SCHOOL ETHICS COMMITTEE OFFICIAL USE ONLY

STATEMENT OF ETHICAL APPROVAL

This project has been considered using agreed University Procedures and has been:

☑ Approved

☐ Not Approved pending:

☐ More Clarification Required

☐ New Submission Recommended

☐ Discussed with Supervisor

☐ Referred to UTREC

☐ Referred to Fieldwork Subcommittee

Convenor’s Name

Signature

Date: 29/6/2011

Please use the space below and additional pages to attach any supporting documents i.e. Participant Information Sheets, Consent Forms, Debriefing Forms, Questionnaires, Letter to Parents etc.

We recommend you refer to the sample documents provided at https://www.st-andrews.ac.uk/utrec/EthicalApplication/SampleDocuments/
Appendix D

Fieldwork Ethics Approval Form
**Please Tick:** (click on the box then click ‘Checked’ for a cross to appear in the box)

Undergraduate ☐    Postgraduate Research √    Postgraduate Taught ☐    Staff ☐

Lecturer/Course Controller on behalf of Taught module ☐    Module Code: 

Researchers Name(s):  Morten Dyrmose

Project Title:  The underpricing of initial public offerings (IPOs): A cross-country analysis

School/Unit:  School of Economics & Finance    Supervisor:  Prof Gavin C Reid

Emails  Md284@st-nadrews.ac.uk    Date Submitted

**Rationale:** Please detail the project in ‘lay language’.  *This summary will be reviewed by UTREC and may be published as part of the reporting procedures. DO NOT exceed 75 Words (for database reasons).*  Elucidation, if required can be given in Q.29

Although Russia, India and China share somewhat similar characteristics historically/economically they now seem on very different trajectories financially. Institutional impediments to market efficiency are like to play a considerable role in pricing new shares in these countries. It is crucial to my research that I visit these countries in order to get behind the figures and understand the underlining issues; no degree of data analysis would be able to compensate for the fieldtrips.

**Ethical Considerations:** Please detail the main ethical considerations raised by the project, concentrating on any issues raised specifically in the red sections, and addressing, where appropriate, the issue of whether basic ethical criteria has been met in all supporting documentation and if not why not.  *This summary will be reviewed by UTREC and may be published as part of its reporting procedures. DO NOT exceed 75 words (for database reasons).*  Elucidation, if required can be given in Q.29

Interviews will be conducted with finance professionals in Russia, India and China i.e. ‘vulnerable persons’ will not be involved in the process. The main ethical issue may be confidentiality. I address this in the pre-amble to the interview: “Information will be treated in the strictest of confidence and I will not attribute any comments to specific named individuals, unless I have their specific approval”. Moreover, no electronic recording will take place; only note taking.
If ethical approval has been obtained from the University of St Andrews for research so similar to this project that a new review process may not be required, please give details of the application and the date of its approval.

| Approval Code: |  |
| Date Approved: |  |
| Project Title: |  |
| Researchers Name(s): |  |

### RESEARCH INFORMATION

1. ** Estimated Start Date: ** 5th of August 2011

2. ** Estimated Duration of Project:** Three tips, each lasting approximately 2 weeks

3. **Is this research funded by any external sponsor or agency?**
   - YES [ ]
   - NO [ ]
   - The Gilchrist Educational Trust has contributed £500 to this project; covering some travel expenses

4. **Does this research entail collaboration with researchers from other institutions and/or across other University Schools/Units?**
   - YES [ ]
   - NO [ ]

   If YES state names and institutions of collaborators:

5. **If the research is collaborative has a framework been devised to ensure that all collaborators, including all University Staff, External Researchers, and Students, are given appropriate recognition in any outputs?**
   - N/A [ ]
   - YES [ ]
   - NO [ ]

6. **Where projects raise ethical considerations to do with roles in research, intellectual property, publication strategies/authorship, responsibilities to funders, research with policy or other implications etc., have you taken appropriate steps to address these issues?**
   - N/A [ ]
   - YES [ ]
   - NO [ ]

7. **Location of Research Fieldwork to be conducted:** Mostly at the place of work for the interviewees; Moscow (Russia), Shanghai (China) and Mumbai (India)

8. **Are you using only library, internet sources or unpublished data (with appropriate licenses and permissions) and so have no human involvement such as interviewing of people?**
   - YES [ ]
   - NO [ ]

9. **Who are the intended Participants (e.g. students aged 18-21) and how will you recruit them (e.g. advertisement)?**
   - They are finance professionals and access will obtained through a combination of networking and cold solicitation

8. **Estimated duration of Participant Involvement.**
   - Around two hours per interview

---

For projects funded by ESRC please be aware of the Ethical and Legal Considerations found at [http://www.esds.ac.uk/aandp/create/ethical.asp](http://www.esds.ac.uk/aandp/create/ethical.asp)
### ETHICAL CHECKLIST

**10. Have you obtained permission to access the site of research?**

<table>
<thead>
<tr>
<th>N/A</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If YES please state agency/authority etc. & provide documentation. If NO please indicate why in Q29.

**11. Will inducement i.e. other than expenses, be offered to participants?**

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>✓</th>
</tr>
</thead>
</table>

If YES, please give details of the inducement being offered and justify.

**12. Has ethical approval been sought and obtained from any external body e.g. REC(NHS)/LEA and or including other UK Universities?**

<table>
<thead>
<tr>
<th>N/A</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If YES, please attach a copy of the external application and approval.

**13. Will you tell participants that their participation is voluntary?**

<table>
<thead>
<tr>
<th>YES</th>
<th>✓</th>
<th>NO</th>
</tr>
</thead>
</table>

**14. Will you describe the main project/experimental procedures to participants in advance so that they can make an informed decision about whether or not to participate?**

<table>
<thead>
<tr>
<th>YES</th>
<th>✓</th>
<th>NO</th>
</tr>
</thead>
</table>

**15. Will you tell participants that they may withdraw from the research at any time and for any reason, without having to give an explanation?**

<table>
<thead>
<tr>
<th>YES</th>
<th>✓</th>
<th>NO</th>
</tr>
</thead>
</table>

**16. Please answer either a. or b.**

- **a. Will you obtain written consent from participants?**

<table>
<thead>
<tr>
<th>YES</th>
<th>✓</th>
<th>NO</th>
</tr>
</thead>
</table>

- **b. (ONLY: Social Anthropology, Geography/Geoscience, International Relations & Biology)**

<table>
<thead>
<tr>
<th>YES</th>
<th>✓</th>
<th>NO</th>
</tr>
</thead>
</table>

**17. Please answer either a. or b.**

- **a. If the research is photographed or videoed or taped or observational, will you ask participants for their consent to being photographed, videoed, taped or observed?**

<table>
<thead>
<tr>
<th>N/A</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

- **b. (Social Anthropology & Biology ONLY)**

<table>
<thead>
<tr>
<th>N/A</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

**18. Please answer either a. or b.**

- **a. Will you tell participants that their data will be treated with full confidentiality and that if published, it will not be identifiable as theirs?**

<table>
<thead>
<tr>
<th>YES</th>
<th>✓</th>
<th>NO</th>
</tr>
</thead>
</table>

- **b. Will you tell participants their work/contribution will be credited unless they specifically request anonymity?**

<table>
<thead>
<tr>
<th>YES</th>
<th>✓</th>
<th>NO</th>
</tr>
</thead>
</table>

**19. Will participants be clearly informed of how the data will be stored, who will have access to it, and when the data will be destroyed?**

<table>
<thead>
<tr>
<th>YES</th>
<th>✓</th>
<th>NO</th>
</tr>
</thead>
</table>

**20. Will you give participants a brief explanation in writing of the study? i.e. a debrief**

<table>
<thead>
<tr>
<th>YES</th>
<th>✓</th>
<th>NO</th>
</tr>
</thead>
</table>

**21. With questionnaires and/or interviews, will you give participants the option of omitting questions they do not want to answer?**

<table>
<thead>
<tr>
<th>N/A</th>
<th>YES</th>
<th>✓</th>
<th>NO</th>
</tr>
</thead>
</table>

---

If you have answered NO to any question 12-21, please give a brief explanation in the statement of Ethical Considerations on Page 1 and expand in Q29 if necessary.

If you have answered YES, it must be clearly illustrated in the relevant paperwork which must be attached i.e. Participants Information Sheet, Consent Form, Debriefing Form, Questionnaire, Letters etc……
WORKING WITH CHILDREN AND OR VULNERABLE PEOPLE

Do participants fall into any of the following special groups?

- a. Children (under the age of 16 in Scotland or 18 in England) □ Yes ☑ No
- b. Vulnerable Adult, receiving care or welfare services □ Yes ☑ No
- c. People with learning or communicative difficulties □ Yes ☑ No
- d. Residents/Carers in a specific location, e.g. Care Home □ Yes ☑ No

If you answer YES to a. – d. it is likely you will be required to obtain Protection of Vulnerable Groups (Scotland)/Disclosure approval (to include all research carried out outside the UK). If working in England / Wales please obtain the England/Wales equivalent – Police Check. Refer to the UTREC Working with Children and Vulnerable Groups webpage for further guidance.

- e. NHS Patients or Staff □ Yes ☑ No
- f. Institutionalised persons ☑ No

If you answer YES to e. or f. it is likely you will be required to obtain approval from the NHS. This should be sought prior to approval from the relevant SEC or UTREC.

- g. People in custody □ Yes ☑ No
- h. People engaged in illegal activities, e.g., drug-taking □ Yes ☑ No

If you answer YES to g. or h. you should ensure that the relevant Risk Assessment Checklist has been completed.

24. Are you a UK National? □ Yes ☑ No

If NO an equivalent disclosure/PVG/Police check must also be obtained from your main country of residence and submitted with your application. This is in addition to a PVG approval.

ETHICAL RISK

This section is for ethical use only and does not replace the University official procedures on Risk and Safety measures. In addition to completing this section you must review the following: [https://www.st-andrews.ac.uk/utrec/EthicalApplication/riskassessment/](https://www.st-andrews.ac.uk/utrec/EthicalApplication/riskassessment/) and [http://www.st-andrews.ac.uk/staff/policy/Healthandsafety/Publications/Fieldwork/](http://www.st-andrews.ac.uk/staff/policy/Healthandsafety/Publications/Fieldwork/) and follow the relevant procedures.

25. Are any of the participants in a dependant relationship with the investigator e.g. lecturer/student? If YES, give explanation in Q.29. □ YES □ NO ☑

26. Will your project involve deliberately misleading participants in any way? If YES, give details in Q.29 and state why it is necessary and explain how debriefing will occur.

□ YES □ NO ☑

27. Is there any significant risk to any paid or unpaid participant(s), field assistant(s), helper(s) or student(s), involved in the project, experiencing either physical or psychological distress or discomfort? If Yes, give details in Q.29 and state what you will do if they should experience any problems e.g. who to contact for help.

□ YES □ NO ☑
28. Do you think the processes, including any results, of your research have the potential to cause any damage, harm or other problems for people in your study area? If YES, please explain in Q.29 and indicate how you will seek to obviate the effects.

YES ☐ NO ✓

ETHICAL STATEMENT

29. Write a clear but concise statement of the ethical considerations raised by the project and how you intend to deal with them. It may be that in order to do this you need to expand on the Ethical Considerations section on page 1. (continue on additional pages if necessary)

Confidentiality:

No interviewee will be mentioned by name or described in a manner which makes identification possible, unless prior concrete permission has been granted by the subject.

The responses will be recorded solely by note taking. No electronic recording devises will be used in this project.

All correspondence with potential interviewees and any follow-up from the meetings will be conducted through Unimail. As such, all correspondence will be stored on external servers housed at a Tier 3+ Data Centre in Dundee. This facility, managed by Brightsolid, currently holds secure data for the commercial, public and financial sectors.

General observations:

All participants will be volunteering their time and knowledge; no remuneration will be made.

In the pre-amble participants will be reminded that they can terminate the interview at any stage and are free to not answer any specific questions or topics.
DOCUlMENTATION CHECKLIST

Ethical Application Form YES □ NO □
Participant Information Sheet YES □ NO □
Consent Form YES □ NO □
Debriefing Form YES □ NO □
External Permissions YES □ NO □
Letters to Parents / Children / Head Teachers etc.. YES □ NO □
PVG (Scotland) or Police Check (England/Wales) Approval (as necessary) YES □ NO □
Advertisement YES □ NO □
Other (please list):  

DECLARATION

I am familiar with the UTREC Guidelines for Ethical Research http://www.st-andrews.ac.uk/utrec/guidelines/ and *BPS, *ESRC, *MRC and *ASA (*please delete the guidelines not appropriate to your discipline) Guidelines for Research practices, and have discussed them with other researchers involved in the project.

STUDENTS ONLY
My Supervisor has seen and agreed all relevant paperwork linked to this project YES □ NO □

Print Name: Morten Dyrrose
Signature
Date: 13/09/11

SUPERVISOR(S)
The Supervisor must ensure they have read both the application and the guidelines, and also has approved the project and application, before signing below, with clear regard for the balance between risk and the value of the research to the School/Student. (Supervisors should provide this on a separate sheet or supply to the student to insert below) Please, if you wish, add comments in no more than 200 words:

Print Name: Prof Gavin C Reid
Signature
Date: 13/06/11

STAFF RESEARCHER ONLY YES □ NO □

Print Name:
Signature
Date:
Appendix E

Participant Consent Form, Anonymous Data
Project Title:  
The underpricing of initial public offerings (IPOs): A cross-country analysis

Researcher Name  
Morten Dyrmore  
School of Economics & Finance  
University of St Andrews  
Email: md284@st-andrews.ac.uk

Supervisors Name  
Prof Gavin C Reid  
School of Economics & Finance  
University of St Andrews  
Email: gcr@st-andrews.ac.uk

The University of St Andrews attaches high priority to the ethical conduct of research. We therefore ask you to consider the following points before signing this form. Your signature confirms that you are happy to participate in the study.

What is Anonymous Data?
The term ‘Anonymous Data’ refers to data collected by a researcher that has no identifier markers so that even the researcher cannot identify any participant. Consent is still required by the researcher, however no link between the participant’s signed consent and the data collected can be made.

Consent
The purpose of this form is to ensure that you are willing to take part in this study and to let you understand what it entails. Signing this form does not commit you to anything you do not wish to do and you are free to withdraw at any stage.

Material gathered during this research will be anonymous, so it is impossible to trace back to you. It will be securely stored on university property. Please answer each statement concerning the collection and use of the research data.

☐ Yes  ☐ No
I have read and understood the information sheet.

☐ Yes  ☐ No
I have been given the opportunity to ask questions about the study.

☐ Yes  ☐ No
I have had my questions answered satisfactorily.

☐ Yes  ☐ No
I understand that I can withdraw from the study at any time without having to give an explanation.

☐ Yes  ☐ No
I understand that my data once processed will be anonymous and that only the researcher(s) (and supervisors) will have access to the raw data which will be kept confidentially.

☐ Yes  ☐ No
I agree to my data (in line with conditions outlined above) being kept by the researcher and being archived and used for further research projects / by other bona fide researchers.

☐ Yes  ☐ No
I agree to take part in the study.

Participation in this research is completely voluntary and your consent is required before you can participate in this research.

Name in Block Capitals  

Signature  

Date
Appendix F

Email Template, Russia, India and China
Dear [Prefix and Surname],

I am currently a third-year PhD student at the School of Economics & Finance, University of St Andrews, Scotland. My research is centred on the globalisation of financial markets and pricing of shares.

As a crucial part of my research I am visiting [City e.g. Shanghai] to better understand [Country e.g. China] and its markets. In particular, I am looking at [Country’s] integration into the wider world economy from the perspective of the different stakeholders in your financial system. In this respect [Company Name] is of course one of the key players and I would be very interested in meeting with you, as [Full Job Title].

I will be in [City e.g. Shanghai] from [Day and Date] to [Day and Date] and I am very interested in learning more about your views on these topics. Ideally, I would like to conduct a semi-structured interview with you. Depending on your availability this interview may last around an hour or so. I understand this is a significant amount of time and I would be very flexible in adapting to your schedule.

Your information will be treated confidentially and I will not attribute any comments to specific individuals or institutions, unless I have their specific approval.

I look forward to hearing back from you. Again, I would like to stress that your assistance would be extremely helpful and much appreciated.

Please find attached a letter of introduction by my supervisor, Professor Gavin C Reid.

Thank you for your time.

Yours sincerely,

Morten Dyrmose
---
Morten Dyrmose
PhD candidate
School of Economics & Finance
Castlecliffe, The Scores
University of St Andrews
St Andrews, Fife
KY16 9AL, Scotland, UK

Tel: +44 (0) 1334 462475
Mobile: +44 (0) 77 xxxx xxxx
Fax: +44 (0) 1334 462444
Email: md284@st-andrews.ac.uk

The University of St Andrews is a charity registered in Scotland : No SC013532
Appendix G

Letter of Introduction,
Russia, India and China
Dear Sir or Madam

I am writing, as Academic Supervisor, to introduce you to one of my doctoral students, Morten Dyrmose.

Morten is currently conducting interviews in three countries, Russia, India and China, with individuals who are familiar with the functioning of corporate enterprises in a market based setting. The topics of discussion are: globalisation; corporate governance; institutional structure and competitive forces.

Briefly, Morten came to us from Royal Holloway College, London University with good credentials, to read for an MSc in Finance. He obtained a Distinction in his MSc dissertation. He is now in his third year of doctoral studies.

Morten is of good standing in the University of St Andrews. His project has been passed by our internal committees, and has it the support of our School of Economics & Finance.

Morten is travelling in the time honoured tradition of international scholarship. I would much appreciate you facilitating his undertaking of this research.

Your help in this regard would be much appreciated.

Many thanks

Yours faithfully

Gavin C Reid
Professor of Economics
Appendix H

Agenda Outline
Agenda Outline

1 Globalisation
  1.1 Economic Effects on Market Functions
     1.1.1 Relative Importance of Actual Flows
     1.1.2 Relative Importance of Restrictions
  1.2 Social Effects on Market Functions
     1.2.1 Relative Importance of Personal Contact
     1.2.2 Relative Importance of Information Flows
     1.2.3 Relative Importance of Cultural Proximity
  1.3 Political Effects on Market Functions

2 Corporate Governance
  2.1 Stakeholders
     2.1.1 Internal Stakeholders
     2.1.2 External Stakeholders
  2.2 Corporate Social Responsibility
  2.3 Business Ethics
  2.4 Enforcement & Control
  2.5 Corporate Governance and Firm Performance
  2.6 Mergers and Acquisitions and Initial Public Offerings

3 Institutional Structure
  3.1 Market Influence by the State
  3.2 Regulatory Bodies
  3.3 Stock Exchanges
  3.4 Market Maturity

4 Competitive Strategy
  4.1 Rivalry
     4.1.1 Banking Sectors
     4.1.2 Auditor Sector
     4.1.3 Brokerage Sector
  4.2 Customers
     4.2.1 Institutional Investors (dominant and/or active)
     4.2.2 Retail Investors (process to invest in the markets?)
  4.3 Suppliers (issuing companies)
  4.4 Potential Entrants
     4.4.1 Investment Banks, Auditors and Brokers
     4.4.2 Issuing companies
     4.4.3 Investors
Appendix I

Email Template, United Kingdom (London)
Dear [Prefix and Surname],

I am currently a third-year PhD student at the School of Economics & Finance, University of St Andrews, Scotland. My research is centred on the globalisation of financial markets and pricing of shares.

As a crucial part of my research, I have recently travelled to Russia (Moscow), China (Shanghai) and India (Mumbai) to learn more about their integration into the wider world economy from the perspective of the different stakeholders in their financial systems. The next, and final, stage is now to benchmark my findings on the UK (London). In this respect [Company Name] is of course a key player and I would be very interested in meeting with you, as [Full Job Title].

I will be in London from Monday the 28th of November to Friday the 9th of December and I am very interested in learning more about these topics from a UK perspective. Ideally, I would like to conduct a semi-structured interview with you. Depending on your availability this interview may last around an hour or so. I understand this is a significant amount of time and I would be very flexible in adapting to your schedule.

Your information will be treated confidentially and I will not attribute any comments to specific individuals or institutions, unless I have their specific approval.

I look forward to hearing back from you. Again, I would like to stress that your assistance would be extremely helpful and much appreciated.

Please find attached a letter of introduction by my supervisor, Professor Gavin C Reid.

Thank you for your time.

Yours sincerely,

Morten Dyrmose

--
Morten Dyrmose
PhD candidate
School of Economics & Finance
Castlecliffe, The Scores
University of St Andrews
St Andrews, Fife
KY16 9AL, Scotland, UK

Telephone: +44 (0) 1334 462475
Mobile: +44 (0) 77 xxxx xxxx
Fax: +44 (0) 1334 462444
Email: md284@st-andrews.ac.uk

The University of St Andrews is a charity registered in Scotland: No SC013532
Appendix J

Letter of Introduction, United Kingdom (London)
Dear Sir or Madam,

I am writing, as Academic Supervisor, to introduce you to one of my doctoral students, Morten Dyrmose.

Morten has been conducting interviews in three countries, Russia, India and China, with individuals who are familiar with the functioning of corporate enterprises in a market based setting. The topics of discussion are: globalisation; corporate governance; institutional structure and competitive forces. He is now concluding his work by conducting a further round of interviews in the UK, primarily in London, for comparative purposes.

Briefly, Morten came to us from Royal Holloway College, London University with good credentials, to read for an MSc in Finance. He obtained a Distinction in his MSc dissertation. He is now in his third year of doctoral studies.

Morten is of good standing in the University of St Andrews. His project has been passed by our internal committees, and has it the support of our School of Economics & Finance.

Morten is travelling in the time honoured tradition of international scholarship. I would much appreciate you facilitating his undertaking of this research.

Your help in this regard would be much appreciated.

Many thanks

Yours faithfully

Gavin C Reid
Professor of Economics
Appendix K

Follow-up Thank-You Email
Dear [Prefix and Surname],

Thank you for taking the time to meet with me today and for sharing your thoughts on these topics with me. It was very interesting indeed.

Once I have completed my trips to Russia, China & India and benchmarked my interview agenda on the UK (London), I plan to write up a brief initial overview of my preliminary findings, which I would like to share with you.

Thank you again for your time.

Yours sincerely,

Morten

--
Morten Dyrmose
PhD candidate
School of Economics & Finance
Castlecliffe, The Scores
University of St Andrews
St Andrews, Fife
KY16 9AL, Scotland, UK

Telephone: +44 (0) 1334 462475
Mobile: +44 (0) 77 xxxx xxxx
Fax: +44 (0) 1334 462444
Email: md284@st-andrews.ac.uk

The University of St Andrews is a charity registered in Scotland: No SC013532
Appendix L

Initial Findings, Fieldwork
**Objective and Methodology**

My research centred on the globalisation of financial markets and the pricing of shares (stocks). From early August to mid-November 2011 I travelled to Russia (Moscow), India (Mumbai) and China (Shanghai) to meet experts and opinion formers who could help me to understand better the functioning (and efficacy) of financial markets in these countries. Subsequently, I have benchmarked my findings against the UK (London).

I visited each country for two weeks. In interviews with leading financial figures and opinion formers I examined how each country integrated into the wider world economy, from the perspective of the different stakeholders in each financial system. I have since synthesised my findings for these three countries, and have compared them with the corresponding experience of the United Kingdom.

**The principal findings are as follows:**

It appears that India has made the most progress in increasing openness and accountability, on the basis of the brief comparisons it has been possible to make.

However, analyses of this nature raise complex issues of comparability, and this brief overview is not meant to provide a definitive answer. There remain considerable advantages to investing and doing business in all three countries – indeed the BRIC economies, as a whole, offer substantial and attractive alternatives to opportunities in G7 economies.

**Board composition**

All three countries are increasingly recognising the importance of appointing independent directors to boards.

**Information flows**

In India, information has been almost completely free since the liberalisation of the media in the 1990s. China, to a great extent, has also made significant progress in this regard, and Russia has progressed, but to a lesser extent.

**Judicial system**

In India, legal processes can be burdensome and subject to undue influence, whereas in China compliance might be incomplete, but the rule of law is unchallenged. By contrast, in Russia rapid transition, whilst conferring many benefits, has resulted in an erosion of the primacy accorded to the rule of law.

**Stock exchanges**

Russia has proactively merged its two main stock exchanges, which is seen as a positive development. China’s government fully controls the flow of companies listing and adjusts accordingly. In India the NSE has overtaken the BSE in terms of credibility and momentum.

**Financial regulators**

The Central Bank may be the most effective entity amongst Russia’s main regulators, although it appears independent in name only. China’s regulators have a strong direct influence on the markets and its participants. In India, the Reserve Bank of India (RBI) is the most prominent regulator and it is held in high esteem (despite its imposing severe restrictions on market participants).

The UK (London) seems to have relatively efficacious free markets and is a noted facilitator of free trade. However, in moving forward under crisis conditions, the UK will need to reconcile and clarify its relationships with the EU and the US, in order to establish firmly a new framework for growth priorities.
Appendix M

Follow-up Email
Dear [Prefix and Surname],

You were kind enough to speak to me about corporate governance in [Country]. At that point, I said I would report back to you on my main findings. Since completing my field trips to Russia, India and China, I have been analysing all the evidence. A brief summary of my findings is now attached. I trust it will be of interest to you.

To update you, I should mention that my doctoral thesis should be examined this summer, after which a copy of my complete work will be available online. I can provide the URL for this, if it would be of interest to you.

Thank you again for taking time out of your busy day to meet me, and for your helpful input to my research.

Your comments are always welcomed.

Yours sincerely,

Morten Dyrmose

--
Morten Dyrmose
PhD candidate
School of Economics & Finance
Castlecliffe, The Scores
University of St Andrews
St Andrews, Fife
KY16 9AL, Scotland, UK

Telephone: +44 (0) 1334 462475
Mobile: +44 (0) 77 xxxx xxxx
Fax: +44 (0) 1334 462444
Email: md284@st-andrews.ac.uk

The University of St Andrews is a charity registered in Scotland : No SC013532
Appendix N

The Russian Hunter,
Citigroup Global Markets
The Russian Hunter
How to Invest in the Russian Rentier System

- **The distribution of rents is key to the Russian market.** In our inaugural strategy piece, we look at how $500bn in annual rent from commodities moves through the economy. In broad terms, we believe oil rents flow via the government to voters, gas rents go directly to the economy, and metals rents are captured by oligarchs. Of the rent, 58% goes to taxation, 18% to subsidy, 16% to capex and 8% to shareholders.

- **How to invest.** We believe investors should buy suppliers of domestic goods and services as the rent ends up with them, stick with oligarchs who are successful at accessing rental flows, trade the shifts in rental allocation for government companies, and watch the commodity cycle, as the system depends on this.

- **MSCI Russia Index target of 1,100.** Two key factors determine our index target – the oil price and Western perception of reform. At present, we expect the former to drift down and a slight improvement in the latter, giving a year-end target of 1,100, with most money made on sector rotation.

- **Buy domestics and Gazprom.** In a flat commodity price environment, domestics tend to outperform as they have superior growth and can resist inflationary pressures better. Gazprom should benefit from a marginal shift of rent in its favour, as well as improving global gas pricing and better use of capex.

- **Top picks.** Among domestics we prefer Sberbank, Nomos, MTS, X5, Synergy, Integra and Globaltrans. Among exporters we prefer Gazprom, Rosneft, Severstal, Raspadsya, Uralkali and Norilsk Nickel.

---

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.
Contents

How to Invest in the Russian Rentier System 3
Index Target 15
Stock Screening 17
Strategy 18
Economics 20
Energy: Oil 23
Energy: Gas 24
Ferrous Metals and Mining 26
Non-Ferrous Metals and Mining 28
Banks 30
Consumer 32
Telecoms and Media 34
Transport and Infrastructure 36
Context: Performance 38
Context: Valuation 39
Appendix A-1 40
What rentier characteristics does Russia have? Russia has many of the hallmarks of a rentier economy: hydrocarbon revenues make up half the federal budget, the value of commodity rents is over a quarter of GDP, and the surplus transferred to the population in social payments over the last seven years has increased from $10bn to over $200bn.

Where does the rent go? Of the $500bn in annual rent that comes from the Russian commodity sector at current prices, we calculate that 58% goes to the government in taxation and then onto the voters, 18% passes through the economy as subsidy, 16% is spent on capex, and just 8% is left for shareholders.

How to invest in this environment? Having rentier characteristics by no means makes Russia uninvestable; it just means that the rules of the game are different. We deduce six rules for how to invest under these circumstances, thereby steering a course between Russia’s detractors and its believers.

Rent ends up with domestic players. Once the rent works its way through the system, albeit with generous cuts for the intermediaries, we believe the key beneficiaries are providers of goods and services to consumers and industry. Russia is still bursting with secular growth stories in banking, construction, infrastructure, retail and consumption.

Ally with successful commodity oligarchs. Certain oligarchs, mainly in the metals and mining sector, have been successful in extracting commodity rents. They are prepared to share the upside with investors, and the presence of portfolio investors can serve to limit the threat of government interference. However, investors should be aware that the high rents accruing to these companies are anomalous and may be subject to change if leadership changes.

Government-controlled companies are often beneficiaries of the system. Whether it is Aeroflot receiving flyover cash, VTB receiving state-backed loans for the Bank of Moscow bailout, or Rosneft and Gazprom getting inexpensive licences, companies controlled by the government have benefited from the system.

Always keep an eye on the commodity cycle. Oil prices determine the level of rent not just for the oil sector but for the entire economy, as we saw in 2008. If the cycle rolls over, the rouble, the market and the economy will follow it down.

Investors should not expect a dramatic increase in their share of rents. The government may adjust the distribution of the rent in the hydrocarbon sector, thereby providing trading opportunities, but with rapidly rising fiscal spending there is little room to give much more to investors.

Avoid industry and agriculture. In rentier systems the currency inevitably appreciates, providing a difficult environment for providers of tradeable goods and the agriculture sector. It is notable that the rouble is trading near its all-time highs in real terms.

What do we like today? Within the context of this analysis, we tend to prefer the long-term secular growth stories to be found in banking (Sberbank), logistics (Globaltrans), telecoms (MTS), retail (X5), and oil capex (Integra). Among oligarch-controlled companies, we favour Severstal, Uralkali and Norilsk Nickel, and we believe Gazprom should benefit from change to its rent distribution.
How the rentier system works

Why use a rentier framework?

We believe that it is instructive to look at the Russian system from the perspective of a rentier framework as this can throw a light on how to invest in the market and steer a middle path between Russia’s detractors, who argue that the market is uninvestable, and Russia’s believers, who see no fragility in the current setup.

It is worth saying up front that Russia is not yet a pure rentier economy, but as Willem Buiter points out in *Global Growth Generators - Moving beyond ‘Emerging Markets’ and ‘BRIC’*, 21 February 2011, it is in danger of becoming one, with some of the less appealing aspects of rentier economies. Commodity taxation makes up over half of federal revenue, rents to the level of over a quarter of GDP are generated by the commodity sector, the economy is highly vulnerable to external price shocks, as we saw in 2008, rent is transferred from the government to the people, and so on. The fiscal breakeven level of the Russian budget gives some indication of the degree to which the system has become ever-more dependent on oil.

Figure 3. The Russian budget break-even oil price, $/bbl

Rentier economies typically split into three parts – the natural resource (usually commodities and usually oil); the intermediary (usually the government); and the beneficiary (sometimes foreign bank accounts, sometimes the people). In simple terms, the rent is derived from the natural resources sector, taken by the government and passed on to the people. Rentier economies have several key characteristics: the elite fight over the division of spoils rather than seeking to improve the system; the population remains quiescent provided enough of the rent is passed down to them; property rights are relatively weak, the currency rises; the industrial sector stagnates; the elite indulge in white elephant projects; and so on. The paradigm for rentier economies is of course OPEC countries in the 20th century, although the Spanish economy of the 16th century is a frequently cited example.
Who provides the rent?

If we define rent as the gap between world prices and extraction costs, then, in broad terms, there are three providers of rent in the Russian system: oil, gas and metals (ferrous and other). On top of this, it is also worth mentioning the infrastructure sector, which has been providing an effective subsidy to the economy as prices have been set at less than replacement cost for many years.

We estimate that at world market prices, the value of Russian production of oil, gas and metals is some $650bn, and extraction costs are $150bn, leaving a total level of rent generation of $500bn.

We lay out below an approximate calculation of the level of rent in the system, based on the current level of prices (oil at $100 per barrel, gas at $400 per thousand cubic metres (000 m3), and steel at $600 per tonne) and Citi analysts’ perspective on cost and tax structures that will be in place by the end of 2011. We seek where possible to tie these numbers back to our actual sector forecasts, although of course they will not tally perfectly, as not all commodities are produced by listed companies, and certain companies (such as Gazprom) have additional product lines passing through their accounts. While of necessity we simplify some fairly complex issues, we believe that the conclusion accurately reflects the nature of rent generation and distribution.

- Oil: The size of the oil rent is relatively easy to calculate. Russia produces around 10m barrels of oil a day, and the extraction cost plus transport is less than $15. If we take the world market price of $100 a barrel, then that implies some $310bn of rent from the oil sector, in theory, and a little less when adjusted for the fact that some is turned into oil products and sold in Russia.

- Gas: Russia produces around 600 bcm a year of gas. The all-in extraction and transportation cost, based on Novatek’s accounts, is no more than $65 per 000 m3, while the rule of thumb for the European price is that it is 4 times the oil price, or $400 in this analysis. For the sake of argument, we remove the $70 per 000 m3 cost to transit Ukraine, and this implies a total rent of around $160bn.

- Ferrous metals: Russia produces around 70m tonnes of steel at an operating cost of the integrated iron ore, coal and steel plants of around $300 per tonne when the global price is around $600. This gives a rent of over $20bn.

- Other metals and mining: There are other sources of rent (in gold, potash, or Norilsk Nickel) where one can simply take the difference between sales and operating costs to get a sense of the size of the rent. We estimate that this is around another $20bn.

There are two other areas which we have not included in our totals as the situation is changing so rapidly and the subsidy is being removed, but we also comment on them below as the situation is fluid.

- Utilities: It might appear odd to include utilities in a list of rent providers in the Russian economy, as this is not a sector which is traditionally thought of as a provider of rent. However, we would argue that it has been a provider of subsidy to the rest of the economy, as the government deliberately underinvested in the sector and exploited the Soviet legacy. For example if the true cost of producing electricity is say 10 cents per KWh and an electricity company is selling it for say 4 cents, then this is a subsidy of 6 cents per KWh to the economy. This subsidy traditionally came from two areas – cheap gas (which we have already accounted for above) and the failure to invest in new power stations, which is why the sector has such old equipment. We estimate that in the past the underinvestment has been in the order of $30bn a year.
Transport: The same argument applies to the transport sector, where for years the government failed to invest enough to maintain the infrastructure. We estimate the total at around the same level as in the utility sector.

Figure 4. Rents available from the Russian commodity sector, $ bn

Source: Citi Investment Research and Analysis

Who are the intermediaries?

It is when we look at the intermediaries that this exercise starts to get rather more interesting. For in Russia, unlike in a normal rentier economy, it is not the government that is the sole intermediary. We believe that there are four principal uses for the rent: taxation paid to the government; subsidy arising from selling raw materials to the economy at less than the global price; capital expenditure; and returns to shareholders.

In a nutshell it is the government that takes the rents from the oil sector and passes it on to the voters, the economy and capex benefit from the gas sector, oligarchs from the metals sector, and the economy and oligarchs from the infrastructure sector.

Overall, we calculate that 58% of the rent is taken in taxation, 18% is subsidy to the economy, 16% is spent in capex, and just 8% is available for shareholders. We lay out below our estimate of the distribution of the total rent (Figure 5).
We consider the distribution of rent according to these four areas below.

**Government**

The tax framework can be seen at a glance if we look at the direct taxation of the different commodities in Russia. Oil is very heavily taxed, gas has some taxation, and the metals and mining sector has very low taxes.
**Oil:** As is widely appreciated, the government takes nearly 70% of the sales value of $100 oil in export tax and MET. In addition, it takes excise tax on domestic product sales as well as profit tax.

**Gas:** The gas sector is much less heavily taxed, paying an MET of just 2% of the value of exports and export tax of 25%.

**Metals:** The metals sector has very light taxation. There is minimal mineral extraction tax and relatively light export taxes on nickel, copper and PGMs. Potash, famously, has no export tax at present.

---

**Figure 7. Russia commodity taxation $bn**

![Bar chart showing commodity taxation by sector for Russia.](image)

Source: Citi Investment Research and Analysis

The government is able to use this commodity windfall money to run low tax rates for much of the rest of the economy (the income tax rate in Russia is 13%), and to transfer much of the money back to voters via social expenditure. This is most clearly seen when comparing the revenues from oil with money spent on social expenditure. As the oil windfall has risen, so has government spending on social expenditure (mostly pensions).
Subsidy

The value of subsidy within the system is rather more subject to interpretation. In our analysis it is only really the gas sector that is giving much subsidy to the economy.

Oil: In theory the oil sector should be subsidising the domestic economy as crude oil and oil products have export taxes, and the price of domestic oil products should be at a discount to the international price. However, in practice domestic oil product prices are not at a major discount to the international price, suggesting that it is the oil companies that benefit from this arrangement.

Gas: The level of gas subsidy to the Russian economy has no correct answer and there are many ways to calculate it. We take a European price of $400 per 000 m³ (which corresponds to $100 oil), and remove the $70 for transiting Ukraine to give a market price of $330 per 000 m³. We then compare that to the current price in Russia of $100 per 000 m³. This implies a subsidy of $92bn to the economy for the 400 bcm of gas consumed.

Metals and mining: The metals and mining sector provides little in the way of subsidy to the rest of the economy. The potash sector makes a subsidy to Russian farmers by selling potash at below the global price, but this is not a major factor. There are also some small export taxes on a few metals, as we have seen, which provide some support to the economy. However, the total level of subsidy is not large.

Infrastructure: As we have already seen, the infrastructure sector has been providing subsidy to the rest of the economy of many tens of billions of dollars in underinvestment for years, although this is now drawing to a close.
Capex

Once we have accounted for costs, subsidy and taxation, the operating cashflow of the commodity sector is relatively small, at $120bn, for the system as a whole. The question then is how this cashflow is distributed between capex and the owners of debt and equity capital. As debt levels and interest payments are relatively low, we take “shareholders” as shorthand for what happens to the cash after capex. It is also important to understand that it is necessary to take capex rather than depreciation, as Russian companies as a rule under-depreciate – depreciation is half the level of capex amongst listed stocks in Russia as a whole, and a quarter for Gazprom.

- Oil: Capex runs at around 70% of operating cash flow.
- Gas: For many years, capex has been at about the same level as operating cash flow.
- Metals: Capex runs at around half the level of operating cash flow.

If we take Citi numbers for operating cashflow and capex by sector in 2011E we see this process clearly.

Figure 9. Operating cashflow and capex for Russian sectors $bn 2011E

Source: Citi Investment Research and Analysis estimates

Shareholders

Among commodity companies, at present, it is only really in the metals sector and a couple of hydrocarbon companies, like Novatek and TNK BP, that there is much money left for shareholders.
Who are the end beneficiaries?

It is possible to identify a number of key end beneficiaries of the system.

- Providers of consumer goods: As we have seen, much of the money amassed by the government through commodity taxation is passed back to the people though social transfers and low taxation rates. Moreover, individuals benefit from cheap electricity and gas, as well as the impact of high commodity revenues trickling through the economy. This is one of the reasons that despite relatively low wages, Russian consumers have tremendous spending capacity and are able to buy such large amounts of consumer goods.

- The banking sector: The impact of a rentier environment on the banking sector is mixed. On the one hand, high rents encourage demand for financial services, but on the other it enables companies to borrow directly abroad. On balance we believe that the sector should be seen as a beneficiary in the same way as other providers of consumer services.

- Providers of goods and services for industry: As much of the money is spent on capex, so it is that companies servicing industry (such as oil services, IT services, pipes or logistics) are able to benefit.

- Companies able to capture the rent for themselves: If companies are able to buy cheap commodities in Russia and sell them aboard with no tax at global prices, then they are in a strong position. Examples include Rusal (cheap electricity) or the nitrogen fertiliser (cheap gas) sector. Other examples of companies that have been able to capture the rent are those in the metals and mining sector that have been able to resist the high taxation levels prevalent in the hydrocarbon sector, or Novatek which has been able to combine low production costs with low domestic taxation on gas and success in being chosen for lucrative projects.

- Government companies: With so much rent available, the government is able to distribute some of it to some companies, usually those it controls. Examples include the recent payment to VTB to help it with the Bank of Moscow purchase, the payment to Aeroflot of overflight revenues, or the awarding of oil and gas licenses at low cost to Gazprom or Rosneft.

- Providers of high-end services: The high-end service sector is booming, with Moscow widely known to be home to more billionaires than New York.

- Foreign bank accounts, a certain proportion of the rent (we estimate capital flight of around $50bn a year based on the capital account data) is taken abroad.
What else can we learn from the rentier system approach?

There are several other aspects of operating in Russia that become much clearer when we consider the system from the perspective of a rentier economy.

- The whole system depends on the level of rent, which in Russia basically means oil prices, as hydrocarbons make up over 90% of the rental pie. It is for this reason that when the oil price falls the market responds so rapidly. So this is why Russia’s nominal GDP tracks the oil price so closely (Figure 9).

![Figure 10. Russian nominal GDP vs oil price](image)

- Patronage is key: This is especially true in the rent-generating sectors of the economy, where the tax level is far more important than their growth or operating activity. However, as we saw recently with VTB, it is also true of the domestic sector at times. The implication is that investors should focus more on the relations between the core shareholder and the government than on the operating plans of management.

- Portfolio investors are useful for a reason: it is important to realise the function of foreign capital for rentier companies controlled by oligarchs. Apart from providing long-term capital, foreign portfolio investors can also provide protection from any parties that might be tempted to reduce its access to rents. Public companies are much less at risk than private ones, as can be seen from the contrasting experiences of Ryblovev (Uralkali) compared with Gutseriev (Russneft) or Chichvarkin (Erovset). So in a sense a function of portfolio investors for oligarch-controlled companies is to provide them with insurance.

- Rentier economies find it hard to reform unless there is a major fall in the price of their core product, as entrenched interests see no need to encourage change which would threaten their rents. Until the oil price falls we should, therefore, perhaps be more cautious regarding potential reform.
What is changing?

However, there are a series of changes to the system taking place and which we summarise below.

Oil: We have already factored into our analysis the proposed 60-66 tax system, which will have little impact on the overall level of returns to investors compared to the current system. In future, we expect the government to shift the system so as to encourage investment in the greenfield sector, with proposed returns of around 18%. However, it should be noted that these new projects, if returns are capped, will not have a dramatic impact on NPVs for shareholders.

Gas: The government plans to increase the domestic gas price from $100 per 000 m3 to $180 over the next few years. This implies that $32bn of rent will be moved from subsidy to other areas. Our working assumption is that the majority of the rent will end up with the government (through a higher MET) or in capex, but it is also likely that returns to shareholders will be higher, coming from a low base.

Metals: There has been much talk about increasing the export tax rates for the metals companies from their current very low level. We believe that this is a clear risk as the sector is so egregiously under-taxed compared to hydrocarbons, and these stocks will be most volatile around the time of the Presidential election in 2012. This implies a constant higher risk to investors in the metals and mining sector.

Infrastructure: The government is increasing the price of electricity and transport tariffs and we believe that these will soon reach their cost price, meaning that the sectors will no longer be subsidising the rest of the economy.

How to invest in Russia’s rentier system?

We lay out below how the various different sectors in Russia fit into this framework. As stock prices fluctuate, any of these sectors may be attractive at different times, but we seek to place them into four types of opportunity – fundamental, higher risk, trading, and unattractive.

Fundamental buys

Russian providers of non-tradeable domestic goods and services for consumers: It is these companies which are the lucky end-recipients of the rent cascading through the system, and which provide the attractive secular growth stories that have proven so successful in Russia over the years. Sectors include banks, telecoms, retail, media, and construction.

Russian producers of goods and services for companies: They are also major beneficiaries as large amounts of capex are recycled into the Russian market. Sectors include oil services, IT services, and logistics.

Russian government-controlled companies: They are most likely to benefit from any spare rent.

Higher risk buys

Companies able to exploit the loopholes in the system: Typical examples are those in the fertilizer and aluminium sectors. These companies are able to take cheap Russian goods, such as gas or electricity, turn them into global commodities and sell them on the international markets at a global price. As long as the government does not close the loophole this is a good business.
Oligarch-controlled companies in the metals and mining sectors as well as a couple of hydrocarbon companies, such as Novatek, have been able to capture rent for shareholders. While the controlling oligarch remains in favour with the government and the company is able to continue to gain direct access to the rent, then inventors should also prosper. However, it should be noted that this play is not without risk in the long term, as the taxation paid by the metals and mining sector in Russia is so low, and the risk always exists that the government will seek to appropriate some of it.

**Trades**

Crumbs from rentier companies’ table: Oil sector companies have been able to produce some returns for shareholders when the government allows them, and from time to time their valuation becomes too low. However, with the ever-rising oil price breakeven, investors should not expect spectacular returns in the foreseeable future.

Buy into change, as that may create opportunity: Some sectors are ripe for change and this will likely create short-term opportunities for investors. One recent example was the removal of the Gazprom ring-fence in 2005-06, another was the decision to liberalise the electricity sector, which initially saw a lot of money made as the sector rerated, even though in the end it was not especially beneficial to investors. Therefore, any talk of change at Gazprom is likely to create interesting trading opportunities, as it trades at such low ostensible multiples.

**Areas which do not look attractive**

Tradeable goods: As the currency tends to rise in a rentier environment, then manufacturers of tradeable goods find it hard to compete with imports.

Agriculture: This is a low-margin business which tends to be damaged by a rising currency and high wages. Investors would do better to look for attractive agriculture opportunities in Ukraine, where they are assisted by a weaker currency.

Electricity: We believe that it will be hard for the government to allow reasonable investor returns in the electricity sector, and that it will always be inclined to use the sector to subsidise the economy in times of stress. So, with elections approaching, we have seen the government pull back on tariff increases once again. In the meantime, investors in the sector are obliged to sink in large amounts of capital with minimal short-term dividends. However, it should also be noted that many foreign investors avoid this sector, and stock prices fluctuate based on local developments which focus less on such long-term considerations.

**Other factors**

Beware the commodity cycle, if it rolls over then the whole system will be under immense stress, as we saw in 2008. Constant vigilance is required. Just because a company is able to exploit the rentier system today does not mean that it will be in favour tomorrow.

**Stock picks**

In the current environment we favour the following groups of stocks:

Cheap domestic consumption: We like Sberbank, X5 and MTS

Domestic capex: We like Globaltrans and Integra.

Plays on systemic change: We like Gazprom

Oligarch-controlled companies: We like Uralkali, Norilsk Nickel, and Severstal.
For most of the last decade it has been possible to forecast the Russian index with respect to two variables – the oil price, which is of course a hard number, and Western perceptions of Russia, which is more conceptual and therefore difficult to quantify.

The reason why the oil price matters so much is that three quarters of the MSCI Russia index is made up of commodity stocks whose profits are affected by the oil price, while the ruble and spreads also move with the oil price. The reason why Western perception matters is that there is little domestic long-term money in Russia, meaning it is foreign investors who set the index level at either above or below its oil price link. The more foreign investors believe in the long-term story of Russia the more likely they are to focus on the relatively low PE and ignore the poor cashflow of the Russian market.

This link can be seen from the chart below of the MSCI index and the oil price, where it is clear that the index trades at around 10 times the oil price. During the YUKOS affair the market traded cheap to the oil price; the Gazprom ringfence removal saw the MSCI index accelerate; and when foreign hopes were high about reform in 2006-08, it traded expensive to oil. Although it is hard to tell from the chart, it is notable that the Russian market started to fall in the summer of 2008 before the oil price fell as a result of the Georgian war, which made global investors nervous about the market.

Figure 11. MSCI Russia vs oil price

To lay out our thoughts on these two variables:

The oil price: The Citi view, pretty much in line with consensus, is that the oil price will end the year at around $100/bbl, drifting down from today’s level of $110/bbl. There is, however, a chance that it will be much lower than this if the various risk scenarios in China or Europe play out unfavourably or more supply than expected is forthcoming from the Middle East. We ascribe a 30% chance to a lower oil price, at say $70 by year-end.
Reform: We think Western perceptions on reform will be mainly determined by the decision on the favoured candidate for the Presidential election as well as progress on WTO accession. We are positive on the likelihood of WTO accession, believing that few obstacles remain, and we expect the substantive decisions on this to be made this year. Although the election is not until March 2012, it is likely that the candidate will be chosen in December 2011 after the Parliamentary elections. We believe that the most likely scenario is a return of Vladimir Putin as President, and that this would cause the market to trade close to its oil price link, with further small upside for the year end and the WTO story. The upside risk, to which we ascribe a 30% probability, is that either current President Dmitry Medvedev is selected as the preferred candidate, or Mr. Putin returns with, say, current Finance Minister Alexei Kudrin as Prime Minister and leads a more reformist government.

Figure 12. Scenarios for MSCI Russia index for year-end 2011E

<table>
<thead>
<tr>
<th>Oil price at year-end</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reform perception</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>800</td>
<td>1100</td>
</tr>
<tr>
<td>High</td>
<td>1000</td>
<td>1300</td>
</tr>
</tbody>
</table>

Source: Citi Investment Research and Analysis

So our year-end MSCI Russia index target of 1,100 (8% upside from the current level of 1,020) is selected from the most likely of these scenarios – high oil price and little excitement about reform. The downside (800) would be a lower oil price and the upside (1,300) more enthusiasm about reform.

Our EMEA strategist, Andrew Howell, is also overweight on the market in the regional context.

The reason the index target implies relatively limited upside from current levels is simply that we have a year-end forecast oil price some $10 below current levels. So if oil drifts down but belief in Russia moves up, we would see a narrowing of the discount to the oil price.

Index movement during the year

The seasonality of the Russian market is well known and has played out roughly this year already, as a strong first quarter gave way to a weak early summer on concerns about global cyclicality.

Assuming this pattern holds we would expect to see fragility over the summer and then a year-end rally if concerns about cyclicality fade. As a rule, the MSCI Russia index trades up by around 50 points at the end of the year, a factor we have included in our forecast.
**Stock Screening**

### Blue chip valuations – highest and lowest

**Figure 13. Deep value, P/B 2011E**

<table>
<thead>
<tr>
<th>Company</th>
<th>P/B 2011E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transneft</td>
<td>0.3</td>
</tr>
<tr>
<td>Gazprom</td>
<td>0.7</td>
</tr>
<tr>
<td>LUKoil</td>
<td>0.7</td>
</tr>
<tr>
<td>Surgutneftegaz</td>
<td>0.8</td>
</tr>
<tr>
<td>KazMunaiGas EP</td>
<td>0.9</td>
</tr>
<tr>
<td>Polymetal</td>
<td>4.6</td>
</tr>
<tr>
<td>O’Key</td>
<td>6.5</td>
</tr>
<tr>
<td>Magnit</td>
<td>6.4</td>
</tr>
<tr>
<td>NOVATEK</td>
<td>6.5</td>
</tr>
<tr>
<td>Uralkali</td>
<td>7.2</td>
</tr>
</tbody>
</table>

**Figure 14. Cash generation, FCF yield 2012E**

- Surgutneftegaz: 17%
- MTS: 15%
- Gazprom Neft: 14%
- Evraz Group: 14%
- Norilsk Nickel: 10%
- X5 Retail Group: 4%
- O’Key: 5%
- Alliance Oil Company: 4%
- Magnit: 9%
- Transneft: 23%

**Figure 15. PEG 2012E**

<table>
<thead>
<tr>
<th>Company</th>
<th>PEG 2012E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transneft</td>
<td>0.1</td>
</tr>
<tr>
<td>Bank of Moscow*</td>
<td>0.1</td>
</tr>
<tr>
<td>Alliance Oil Company*</td>
<td>0.2</td>
</tr>
<tr>
<td>VTB</td>
<td>0.3</td>
</tr>
<tr>
<td>Eurasia Drilling Company*</td>
<td>0.3</td>
</tr>
<tr>
<td>Magnit</td>
<td>0.8</td>
</tr>
<tr>
<td>NOVATEK</td>
<td>0.9</td>
</tr>
<tr>
<td>Mail.ru*</td>
<td>1.1</td>
</tr>
<tr>
<td>CTC Media*</td>
<td>1.3</td>
</tr>
<tr>
<td>Polymet Gold*</td>
<td>3.8</td>
</tr>
</tbody>
</table>

**Figure 16. Dividend yield (highest only) 2011E**

- MTS: 8.2%
- TNK-BP Holding: 7.5%
- KazMunaiGas EP: 6.9%
- Gazprom Neft: 6.6%
- Uralkali: 5.1%
- LUKoil: 3.7%
- Norilsk Nickel: 3.0%
- CTC Media*: 3.2%
- Mechel: 3.2%
- Tatneft: 3.0%

**Figure 17. Stock performance relative to GEM peers**

<table>
<thead>
<tr>
<th>Company</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tatneft</td>
<td>-18.5%</td>
</tr>
<tr>
<td>InterRAO UES</td>
<td>-14.3%</td>
</tr>
<tr>
<td>Federal Grid Company</td>
<td>-14.2%</td>
</tr>
<tr>
<td>Norilsk Nickel</td>
<td>-12.2%</td>
</tr>
<tr>
<td>Sberbank</td>
<td>-12.1%</td>
</tr>
<tr>
<td>Gazprom Neft</td>
<td>-11.1%</td>
</tr>
<tr>
<td>Surgutneftegaz</td>
<td>-10.0%</td>
</tr>
<tr>
<td>Polymetal</td>
<td>-8.8%</td>
</tr>
<tr>
<td>Magnit</td>
<td>-8.0%</td>
</tr>
<tr>
<td>Evraz Group</td>
<td>-7.6%</td>
</tr>
<tr>
<td>Polyus Gold</td>
<td>-5.0%</td>
</tr>
<tr>
<td>MTS</td>
<td>-4.7%</td>
</tr>
<tr>
<td>Mechel</td>
<td>-2.0%</td>
</tr>
<tr>
<td>RUSAL</td>
<td>-1.9%</td>
</tr>
<tr>
<td>Vimpelcom Ltd</td>
<td>-1.1%</td>
</tr>
<tr>
<td>Bank of Moscow</td>
<td>-0.9%</td>
</tr>
</tbody>
</table>

**Figure 18. Stock absolute performance**

<table>
<thead>
<tr>
<th>Company</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tatneft</td>
<td>15.5%</td>
</tr>
<tr>
<td>InterRAO UES</td>
<td>12.5%</td>
</tr>
<tr>
<td>Novolopetit Steel</td>
<td>12.0%</td>
</tr>
<tr>
<td>Federal Grid Company</td>
<td>11.7%</td>
</tr>
<tr>
<td>Gazprom Neft</td>
<td>9.7%</td>
</tr>
<tr>
<td>Sberbank</td>
<td>9.0%</td>
</tr>
<tr>
<td>Norilsk Nickel</td>
<td>8.7%</td>
</tr>
<tr>
<td>Gazprom Neft</td>
<td>8.0%</td>
</tr>
<tr>
<td>Surgutneftegaz</td>
<td>8.0%</td>
</tr>
<tr>
<td>Severstal</td>
<td>7.5%</td>
</tr>
<tr>
<td>Rosneft</td>
<td>7.1%</td>
</tr>
<tr>
<td>Evraz Group</td>
<td>6.4%</td>
</tr>
<tr>
<td>Sistema</td>
<td>4.4%</td>
</tr>
<tr>
<td>MTS</td>
<td>4.4%</td>
</tr>
<tr>
<td>Mechel</td>
<td>4.1%</td>
</tr>
<tr>
<td>RUSAL</td>
<td>4.0%</td>
</tr>
<tr>
<td>Vimpelcom Ltd</td>
<td>3.7%</td>
</tr>
<tr>
<td>Polyus Gold</td>
<td>3.0%</td>
</tr>
<tr>
<td>Bank of Moscow</td>
<td>2.7%</td>
</tr>
</tbody>
</table>

Sources: Citi Investment Research and Analysis, *Datastream consensus
Strategy

Key developments to come

We anticipate an uncertain but positive environment for the Russian market over the second half of the year. Positive factors for Russia include greater clarity on WTO accession, the additional liquidity likely to result from the merger of the RTS and the MICEX exchanges, more talk from the government about privatisation, the sale of the Sberbank stake, and a possible year-end reform story after the Presidential election. Set against this is the jockeying for power over the Presidential election and the ever-rising oil price breakeven level, as the government ramps up subsidies prior to the polls. From a global perspective, Citi anticipates positive news on growth in the US, a postponement of resolution of the Greek crisis and continued growth in China, setting the scene for global markets to grind higher. At the same time, uncertainty is likely to persist over the summer with regards to Greece and China, and we forecast an environment of slowly falling commodity prices.

Strategy view

As a deep cyclical, the main driver for the Russian market is the global commodity cycle, and until there is greater clarity on this, we do not anticipate strong performance from the market. If one adds to this the traditional seasonal weakness faced by the market over the summer, it is hard to escape the consensus view that we will have a summer of drifting markets with an autumn rally if global and local factors play out as we assume.

Under these circumstances, the main call is to be long the domestic sectors, which make up a quarter of the MSCI Russia index, because they are able to resist inflation and have strong growth. Domestic stories usually outperform in a flat commodity price environment. Moreover, valuations do not look stretched, with the domestic sector trading at a 2012E PE of 7.7x, with 12% earnings growth expected, compared to emerging markets as a whole which trade at a 2012E PE of 9.8x, with similar earnings growth.

The second strategic call is to be long Gazprom, some 29% of the MSCI Russia index, as investors are likely to start to receive some benefits from the rent cascading through the company, as domestic prices rise by slightly faster than tax rises and capex can soak them up. At a 2012E PE of 4x and with the possibility of change in the sector, we believe that the company is attractively priced.

Top picks

We select three groups of top picks:

Gazprom, as identified above.

The banking sector, trading at 7.7x 2012E PE and 1.4x price to book, with ROEs of 20% and a strong long-term story of low loan penetration. We prefer Sberbank and NOMOS.

Consumer stocks due to their good long-term growth profile. We like X5, MTS and Synergy.
Figure 19. Sector absolute performance

Figure 20. MSCI Russia performance relative to MSCI GEM and World

Figure 21. MSCI Russia versus oil price

Figure 22. Russian sector valuations as % of GEM peers, 2012E P/E

Figure 23. Russian sector valuation

Source: Datastream

Source: Datastream

Source: Datastream

Source: Citi Investment Research and Analysis estimates.
Economics

Key developments

Consumption growth remains robust (5.5% YoY in May) driven by the non-food sector (+10.7%). With inflation still high (9.6% in end-May) consumers continue increasing the share of durable goods in their consumption goods basket. Real disposable income fell 7% (partially due to the base effect of the substantial rises in social spending last year) and real wages grew by only 2.6% YoY, suggesting that growth was partially financed by a decline in savings. Consumer confidence fell in 1Q2011 compared to 4Q2011, as more consumers expect a worsening of economic conditions and income. However, this is hardly surprising as the index is already near the pre-crisis level.

Investment posted signs of recovery in May (+7.4% YoY, 26% MoM) driven by machinery and equipment, after a sluggish performance in 1Q. Construction and investment activity differ significantly across regions with Far East, Southern and Siberian districts leading the race – up 38% YoY, 9% YoY and 31% YoY in 1Q – due to government-sponsored projects (including preparation for the 2014 Winter Olympics) and investments by the oil and gas companies. A fall in investments and construction by 15-30% YoY in the Central district (including Moscow) and North-Western district (including St Petersburg) – covering over 30% of total investments – explains poor performance of investments in 1Q2011. We believe the negative capital and financial account in 1Q2011 (-US$22bn) was also at least partially related to the slow pick-up in investments and low domestic interest rates, as opposed to the market consensus that attributes it solely to political uncertainty.

Current views

More fiscal stimulus in 2H should keep consumption growth at about 5%, but unlikely to push GDP growth above 4.3-4.5%. Uneven growth performance, in our view, makes hikes in public sector wages and pensions in 2H2011 more likely. Public wages were raised by 6.5% on 1 June, and are likely to be increased by another 6.5% in September. We do not rule out further increases to pensions in 3Q in addition to a 9% hike in January. Selected budget salaries will be increased by 50%, according to the Ministry of Economy’s baseline scenario. We expect stronger investments in the coming months mostly by the state-controlled enterprises. We think expansion of internal demand will be partially offset by strong import growth.

With inflation decelerating we do not expect any rate hikes in 3Q, however CBR may resume rate hikes if pressure on the ruble intensifies at end-2011. In June, the CBR left rates unchanged, stressing balanced risks to growth and likely inflation over the next few months. We think inflation will moderate in the summer and will be near 8% YoY at end-2011. We do not expect further tightening in monetary policy in 3Q, however should the ruble be pressured, we would expect the CBR to hike the deposit rate by at least 50bp in 4Q, especially as we approach parliamentary elections in December and the Presidential election in March 2012. We expect the ruble to stay at 34-35 against the basket in 2011.
Figure 24. RUB/USD history

Figure 25. M2 and forex reserves, $ bln

Figure 26. Key Russian ruble interest rates

Source: Datastream

Figure 27. Investments, industrial production, retail sales

Source: Bank of Russia

Figure 28. Inflation and lending rates

Source: Bank of Russia

Figure 29. Economic data summary and forecasts

Source: Rosstat, Bank of Russia

Source: Rosstat, Citi Investment Research and Analysis estimates
This page is intentionally left blank
Impact of the rentier system on oil companies

Rents from the oil industry are largely extracted by the government, as the sector is the single largest contributor to the federal budget (≈40%, by our estimates). The oil taxation system is structured to take 87% of any marginal rise in oil prices above $25/bbl (i.e., if Urals rises from $90 to $100/bbl, the government will get $8.7 more for every barrel of oil produced and exported from the country). Additional rents are legitimately extracted via the oilfield services (OFS) industry, which benefits from the production declines in West Siberian brownfields which, in spite of their age, still hold massive reserves, although the effort required to extract them grows inexorably year after year.

Strategy view

It is difficult as an equity investor to find a share of the rents of the oil sector. Oil taxation accounts for the bulk of the rents available in the industry, which naturally flows to the government. As we pointed out in our Russian Oil Sector Overview - No Room for Tax Breaks, 8 June), this will not materially change in future and will actually get somewhat heavier rather than lighter. Capex will rise as the marginal barrel gets more difficult to produce, and can be accessed partially via the OFS industry. Dividend payouts will likely remain in the range of 20% of net income per international accounting standards, and earnings will likely grow only with difficulty.

Among the integrated oil companies, we recommend that investors align themselves with the government via Rosneft, which has the best exposure to the tax regime via a combination of: a) its relatively young West Siberian brownfields, and b) a substantial number of new licenses that it may develop under the effective regulate-return greenfield taxation system. Investors can also gain some exposure to the sector trends and capex outlays in the sector via the oilfield services names.

Top picks

- **Rosneft** – While the government extracts most of the rents in the oil sector, Rosneft has the enviable position of being the best-positioned oil company within the sector. Its West Siberian brownfield assets – particularly its crown jewel Priobskoye field – are among the youngest and best in the region. With a tax system geared to strip out nearly all excess cash flows from the system at large, relative winners are absolute winners. The company also has preferential access to new resources in East Siberia and offshore (where only government-owned companies can operate). The development plan for Yurubcheno-Tokhomskoye, Rosneft's next big field, is to be submitted to the government in 4Q. If development and the necessary tax breaks are approved by the government, this will act as a catalyst for the stock.

- **Integra (OFS)** – Integra is our top pick among the Russian oilfield services companies as: 1) it is the cheapest on '12e P/E at 9.6x (CAT Oil 10.7x, Eurasia 13.8x), 2) EBITDA growth in '11e could hit 23%, 7% from improved margins & 15.7% from order book growth; 3) margin expansion potential has not been exhausted yet due to better orders in the drilling & formation evaluation segments; and 4) debt restructuring last year freed up resources as interest costs now consume only 11% of EBITDA vs. 30% in 2010.
Energy: Gas

Impact of the rentier system on gas companies

Rents from the gas industry are only partially extracted via taxation. The export duty regime only takes 30% of marginal price increases vs. 65% in the oil industry, and the gas Mineral Extraction Tax, while rising sharply, is still well below that applied to oil. However, additional rents have traditionally been levied on the industry via low regulated prices on domestic gas sales. Tallied up and converted to a combination of offsetting higher revenues and taxes, these rents have historically kept Gazprom’s tax burden in line with that of the oil companies.

Additional rent extraction from the gas industry takes two forms: First, Novatek has become the favored gas company in the country, winning numerous new customers and production assets at the expense of Gazprom. Second, Gazprom’s $30-$40/bn per annum capex outlays have been a major source of rent redistribution.

Strategy view

Gas taxation will also be rising, and strongly, albeit from a relatively low base, and will be more than offset by higher domestic gas prices. We should see the rise in the gas MET for 2012 finalized in the coming days or weeks, which we think will likely come in near the MinFin’s desired 100% increase for Gazprom, and a much lower 6% for independent gas producers. Tariff increases for 2012 will take a bit longer to be determined, and we may not know their breakdown until well into autumn, if history is any guide. However, in spite of pre-election indications of only ‘inflation-level’ increases of c6% rather than the currently approved plan of a 15% increase from 1 January 2012, we expect the full-year increase to be substantially.

Novatek is an intriguing idea, but as a concept stock, the value of which will exceed the value of current producing assets by some indefinable amount, we cannot recommend it currently and rate it Hold (2M).

Top picks

- Gazprom – We like Gazprom not because we think the rentier system will be shifted in its favor – if anything, Novatek is winning domestically at Gazprom’s expense on the back of rentier-related transactions – but rather due to the rapidly improving outlook for the company’s export business. Gazprom strongly underperformed the market in 2009 on: a) fears surrounding its oil-linked European export contract structure, and b) falling export volumes. The fears have proven misplaced and export volumes are recovering rapidly. In our view it is time the stock regained its lost ground relative to other Russian oil & gas names. Specific catalysts we see in the next 6 to 12 months include: a) the start-up of the Nord Stream pipeline, which brings along an additional 22bcm of new contracts, volumes which roll in over 3-5 years; b) the Final Investment Decision for the Shtokman field, which we expect to be taken in December; c) the Chinese contract, which we expect to be signed by year-end or, failing that, some combination of; d) a decision to develop a 3rd LNG train at Sakhalin 2; and/or e) the development of a standalone LNG project at Vladivostok using some of the gas reserves currently intended to serve the Chinese market via pipeline.
Figure 30. Oil and gas stock performance

Figure 31. Russian energy sector relative performance

Source: Datastream

Figure 32. Oil and gas prices

Figure 33. 12m forward P/E

Source: Datastream

Figure 34. Energy stock valuation

Source: Citi Investment Research and Analysis
Impact of the rentier system on steel and coal companies

Rents from the Russian steel and steel-related sector are largely extracted by the major controlling shareholders. While there was talk of introducing coal export duties, these never materialized. Likewise, there is no duty on exports of finished steel, and such duty has never been discussed. On the contrary, there is a 5% import duty on coking coal, and pipe imports from Ukraine are kept at bay by anti-dumping duties on these pipes. It is fair to note though that the steel companies, even vertically integrated, are not as highly profitable as the mining companies. In the past few quarters, EBITDA margins in the sector have been in the 17-30% range. The pure mining plays are more profitable. Raspadskaya, a pure coking coal play, posted a 43% EBITDA margin in 2010, even though operations were heavily affected by an accident. The risks of heavier taxation are potentially significant for the pure play miners in our view, but not for the steel companies, especially non-vertically integrated, such as NLMK or MMK, which is in fact an importer of iron ore.

Strategy view

Although often viewed as export-oriented, the sector partially fits the concept of investing into sectors where the rent ends up with domestic players. Indeed, domestic steel demand has largely reached the 2008 level, while domestic shipments by Russian mills well exceed exports, in both flat and long segment.

We believe steel prices should be resilient in 3Q, while domestic apparent consumption could be close to 10% above that in 2010. Barring negative surprises from the Chinese steel pricing, most of the Russian steel companies should be able to maintain well above 20% EBITDA margins in 3Q. Vertical integration will remain a key theme. Since 2Q10, we have noticed a steady margin expansion at such vertically integrated companies like Severstal, but at the same time a marginal deterioration at non-integrated companies, such as NLMK.

The sector has been an underperformer YTD, just as it was in 1H10. At the end of 1H10, the Russian steel stocks were in the negative territory, down close to 15% on the average from the beginning of 2010. They traded on current (2010E) EV/EBITDA of 6.1, which represented a 4% discount to global steel peers. In 2H10, the steel stocks gained close to 40% as margins expanded. The stocks also rerated and were trading at close to 20% premium to global peers by the end of 2010.

Top picks

- **Severstal** – is our favourite vertically integrated play in the Russian steel sector, based on its strongly improving profitability still coupled with undemanding valuation aided by the exposure to gold, which should be helpful to reduce volatility. The press reports (Bloomberg, 16 June 2011) that management is increasingly considering a gold company spin-off, possibly in the form of unbundling/distributing shares in the new company to existing shareholders, as opposed to previous plans to do an IPO and offer stock to new investors.

- **Raspadskaya** – against the backdrop of resilient global coking coal prices (note that our global commodity strategists just increased 2013 coking coal price forecast – see Bulk Commodities - No more tough times for the Coal Miner’s Daughter, by Daniel Hynes and team, 4 July 2011), we see Raspadskaya as a strongly undervalued domestic coal demand play, even on accident-depressed 2011 forecasts.
Figure 35. Ferrous and steel-related stock performance

<table>
<thead>
<tr>
<th>Company</th>
<th>1M</th>
<th>YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novolipetsk Steel</td>
<td>-14.3%</td>
<td>12.0%</td>
</tr>
<tr>
<td>Ferrexpo</td>
<td>15.5%</td>
<td>15.3%</td>
</tr>
<tr>
<td>Severstal Steel</td>
<td>6.0%</td>
<td>12.4%</td>
</tr>
<tr>
<td>EM Steel</td>
<td>2.9%</td>
<td>4.7%</td>
</tr>
<tr>
<td>TMK</td>
<td>4.0%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Magnitogorsk Steel</td>
<td>-9.0%</td>
<td>-3.9%</td>
</tr>
<tr>
<td>Evraz Group</td>
<td>-12.2%</td>
<td>-9.4%</td>
</tr>
<tr>
<td>ENRC</td>
<td>-18.3%</td>
<td>-9.0%</td>
</tr>
<tr>
<td>Mechel</td>
<td>-9.5%</td>
<td>-23.4%</td>
</tr>
<tr>
<td>Raspadskaya Coal</td>
<td>-22.8%</td>
<td>-15.7%</td>
</tr>
</tbody>
</table>

Source: Datastream

Figure 36. Russian ferrous sector relative performance

<table>
<thead>
<tr>
<th>Year</th>
<th>Novolipetsk Steel</th>
<th>Ferrexpo</th>
<th>Severstal Steel</th>
<th>EM Steel</th>
<th>TMK</th>
<th>Magnitogorsk Steel</th>
<th>Evraz Group</th>
<th>ENRC</th>
<th>Mechel</th>
<th>Raspadskaya Coal</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>-14.3%</td>
<td>12.0%</td>
<td>23.4%</td>
<td>12.3%</td>
<td>12.4%</td>
<td>-23.4%</td>
<td>-12.2%</td>
<td>-6.1%</td>
<td>-22.8%</td>
<td>-15.7%</td>
</tr>
<tr>
<td>2011</td>
<td>-10.0%</td>
<td>15.3%</td>
<td>15.4%</td>
<td>12.4%</td>
<td>12.5%</td>
<td>-23.6%</td>
<td>-12.2%</td>
<td>-6.1%</td>
<td>-22.8%</td>
<td>-15.7%</td>
</tr>
</tbody>
</table>

Source: Datastream

Figure 37. Steel and iron ore prices, $/ton

<table>
<thead>
<tr>
<th>Year</th>
<th>Steel, HRC Europe</th>
<th>Iron ore, Metal Bulletin index</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>800</td>
<td>200</td>
</tr>
<tr>
<td>2009</td>
<td>1200</td>
<td>550</td>
</tr>
<tr>
<td>2010</td>
<td>1400</td>
<td>800</td>
</tr>
<tr>
<td>2011</td>
<td>250</td>
<td>150</td>
</tr>
</tbody>
</table>

Source: Citi Investment Research and Analysis

Figure 38. 12m forward P/E

<table>
<thead>
<tr>
<th>Year</th>
<th>Russian metals</th>
<th>EM metals</th>
<th>DM metals</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>20</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>2009</td>
<td>15</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>2010</td>
<td>20</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>2011</td>
<td>25</td>
<td>15</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Datastream

Figure 39. Ferrous stock valuation

<table>
<thead>
<tr>
<th>Company</th>
<th>Price, $</th>
<th>Target</th>
<th>Rating</th>
<th>Mcap, $ bln</th>
<th>P/E</th>
<th>EV/EBITDA</th>
<th>EPS gth</th>
<th>P/BV</th>
<th>Div yld</th>
<th>EBITDA margin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novolipetsk Steel</td>
<td>4.07</td>
<td>5.30</td>
<td>1M</td>
<td>21.2</td>
<td>12.9</td>
<td>9.9</td>
<td>6.6</td>
<td>5.2</td>
<td>41%</td>
<td>30%</td>
</tr>
<tr>
<td>Severstal Steel</td>
<td>18.7</td>
<td>24.00</td>
<td>1M</td>
<td>18.7</td>
<td>8.9</td>
<td>7.3</td>
<td>5.6</td>
<td>4.6</td>
<td>53%</td>
<td>23%</td>
</tr>
<tr>
<td>ENRC</td>
<td>12.86</td>
<td>16.06</td>
<td>1H</td>
<td>16.6</td>
<td>7.1</td>
<td>6.6</td>
<td>4.0</td>
<td>3.8</td>
<td>7%</td>
<td>6%</td>
</tr>
<tr>
<td>Evraz Group</td>
<td>31.50</td>
<td>38.00</td>
<td>3M</td>
<td>13.8</td>
<td>15.4</td>
<td>10.8</td>
<td>6.4</td>
<td>5.5</td>
<td>273%</td>
<td>43%</td>
</tr>
<tr>
<td>Mechel</td>
<td>24.64</td>
<td>40.00</td>
<td>1H</td>
<td>12.7</td>
<td>6.6</td>
<td>4.6</td>
<td>6.0</td>
<td>5.2</td>
<td>138%</td>
<td>42%</td>
</tr>
<tr>
<td>Magnitogorsk Steel</td>
<td>11.50</td>
<td>17.00</td>
<td>2M</td>
<td>9.7</td>
<td>9.9</td>
<td>10.0</td>
<td>5.1</td>
<td>4.8</td>
<td>61%</td>
<td>-1%</td>
</tr>
<tr>
<td>Raspadskaya Coal</td>
<td>5.97</td>
<td>9.00</td>
<td>1H</td>
<td>4.7</td>
<td>8.5</td>
<td>5.8</td>
<td>5.6</td>
<td>3.6</td>
<td>124%</td>
<td>47%</td>
</tr>
<tr>
<td>TMK</td>
<td>18.80</td>
<td>17.00</td>
<td>3H</td>
<td>4.4</td>
<td>37.4</td>
<td>13.7</td>
<td>10.7</td>
<td>8.2</td>
<td>0%</td>
<td>174%</td>
</tr>
<tr>
<td>Russia-Steel</td>
<td>76.2</td>
<td>10.1</td>
<td>7.9</td>
<td>6.0</td>
<td>5.1</td>
<td>77%</td>
<td>28%</td>
<td>1.7</td>
<td>2.6%</td>
<td>28%</td>
</tr>
<tr>
<td>EM-Steel</td>
<td>463.5</td>
<td>8.1</td>
<td>7.7</td>
<td>5.3</td>
<td>4.7</td>
<td>42%</td>
<td>5%</td>
<td>1.5</td>
<td>3.1%</td>
<td>28%</td>
</tr>
<tr>
<td>DM-Steel</td>
<td>171.8</td>
<td>13.9</td>
<td>10.2</td>
<td>6.3</td>
<td>5.3</td>
<td>122%</td>
<td>37%</td>
<td>1.4</td>
<td>1.6%</td>
<td>12%</td>
</tr>
</tbody>
</table>

Source: Citi Investment Research and Analysis
Non-Ferrous Metals and Mining

Impact of the rentier system on the non-ferrous sector

Rents from the Russian non-ferrous metals and mining sector are largely extracted by major controlling shareholders, although the state is more proactive in administering taxation by export duties than in the steel sector. Norilsk Nickel is the most significant contributor, especially after the recent introduction of a variable LME-linked nickel export duty. We estimate that 2011 export duties on Norilsk will account for 8% of its total mining revenues and will as such amount to more than US$1bn. The mining tax should add close to 2% of revenue, but even bearing that in mind, we estimate that 2011 EBITDA margin will be above 50%. There are no export duties on potash or aluminium. Gold and silver production is not subject to any meaningful royalty taxes. As such, Uralkali generated an EBITDA margin of 60% in 2010, Polymetal 41%, and Rusal 24% - bear in mind though that Rusal had an effective tax rate of 5%. We believe that if a more consistent taxation policy were pursued by the government, then the mining companies could be vulnerable to significantly higher export duties/royalties.

Strategy view

We now expect that India may have to settle at above the Chinese price as Arab Potash’s new contract with China (300kt) limits the options for India. It may well be the case that the Asian spot potash markets (currently priced at US$510/t) will move towards the LatAm spot price of US$550/t. Uralkali expects the spot price to reach US$600/t by year end, which, if it materializes, could put upward pressure on our and consensus estimates.

In other segments, as commodities may remain flat to oscillating on a 3-month horizon, Norilsk may remain more resilient as management may continue investing its strong cash flows into buy-backs. YTD, Rusal has become much more attractively valued given its performance, but lacks catalysts.

Overall, the investing success in the sector may remain dependent on being in the right commodity while allying oneself with the right commodity oligarch.

Top picks

- **Uralkali** – the stock appears fairly valued as compared to international potash and fertilizer peers. Having said that, we see upside risk to our forecasts if the company continues to successfully achieve premium prices on international markets, while domestic prices are more reflective of export parity (at least to NPK producers). The discounted sales to domestic farmers are the reason used by the group’s well-connected core shareholders to lobby the government not to impose export duties. Finally, our production estimates are conservative and do not fully reflect the announced 23% 2010-12 production growth through brownfield debottlenecking and optimization.

- **Norilsk Nickel** – on 12-month forward-looking multiples, the stock is trading at close to a 10% discount to global diversified metals and mining peers, which is a historically low reading. Having said that, we are positive on Norilsk for two main reasons, the first being the price-driven increase in platinum group metals’ share in the company’s revenues. We are positive on palladium and Norilsk should benefit as it controls close to 40% of the global market share. The stock may also benefit form the higher valuation multiples prevailing in the global PGM sector. Secondly, the management seems to be committed to buying stock back on any weakness, which may not necessarily be driven by value-creation considerations, but could still be supportive in volatile market conditions.
Figure 40. Non-ferrous stock performance

Figure 41. Russian non-ferrous sector relative performance

Figure 42. Key metals prices, $/ton ($/oz for gold)

Figure 43. 12m forward P/E

Figure 44. Non-ferrous stock valuation

Source: Datastream

Source: Citi Investment Research and Analysis

Source: Citi Investment Research and Analysis. Items marked with * are sourced from Datastream consensus as non-rated
Banks

The impact of the rentier system on the banks

The fortunes of the banking sector are intricately linked to the ebb and flow of Russia’s rentier economy. Rents extracted from the economy ultimately find their way into the banking sector (unless taken abroad) and are a key source of funding (both directly and indirectly). The high price of oil, and the currency appreciation that tends to follow, encourages foreign investors to lend to the sector which further reduces funding pressure. This reduces demand for retail deposits and, coupled with stubbornly high inflation, means real deposit rates often tend to be negative, which encourages borrowing and spending over frugality and saving. The banks thus benefit from healthy demand for high margin loans to the still under-banked consumer (retail lending amounts to just 9% of GDP).

The largest banks are not only listed – providing them with some of the same “insurance” that listed resource companies enjoy, but they also remain controlled by the State. In a rentier environment, this provides additional protection as during the inevitable down cycles of the oil price the full balance sheet of the sovereign back these systemically important institutions.

Strategy view

We remain bullish on the Russian banking sector as we expect ongoing acceleration in loan growth, a stabilization of margins, and normalization of risk cost to continue to drive strong earnings growth. Now that inflation is trending upwards and real deposit rates have returned to negative territory we anticipate a bottoming of corporate lending yields and a pick up in demand for retail credit. Having lagged the oil and gas sectors, we expect banks, along with other consumer sectors, to rebound assuming the oil price stabilizes at current levels.

Restructuring is another theme that supports our positive view on the sector: Sberbank is working to re-engineer the bank into a modern provider of universal banking services, VTB is working to integrate two new acquisitions (Transcreditbank and Bank of Moscow) with substantial State support in the case of the later, while NOMOS Bank is also integrating the recently acquired Bank Khanty Mansiysk.

Top picks

- **Sberbank** – We like Sberbank because of the bank’s strong franchise (just under 50% retail deposit market share and a true nationwide presence) and an optimistic view on management’s efforts to restructure the bank into a modern provider of financial services, which we expect will lead to increased sales of financial services and better efficiency. We expect the bank to maintain an ROE above 20%, which we think justifies a P/BV multiple higher than the bank’s current rating of 1.8x 2011 book. Additionally, the bank trades at an undemanding 2011E P/E of 7.5x despite forecast CAGR in earnings of 34% from 2010-12E.

- **NOMOS Bank** – We expect NOMOS Bank to continue to deliver on achieving its target of growing loans faster than the sector, to integrate Bank Khanty Mansiysk, and ultimately generate an ROE of 20% or more this year, which is considerably higher than VTB and Vozrozhdenie, and just below our forecast of Sberbank’s long-term sustainable ROE. Yet this doesn’t appear to be fully discounted in the current rating of the stock, which is trading at 1.57x 2011E book. We also note that we forecast the bank to generate a CAGR in 2010-12E proforma earnings of 25%, which compares with a P/E of 8.7x this year and 7.1x next year.
Figure 45. Banks stock performance

Figure 46. Russian banking sector relative performance

Figure 47. Russian banks loan portfolio, $ bln

Figure 48. 12m trailing PB

Figure 49. Banks valuation

Source: Datastream

Source: Bank of Russia

Source: Datastream

Source: Citigroup Global Markets
Impact of the rentier system on the consumer sector

On the surface, the rentier system would appear to naturally favor consumer/retail stocks for two main reasons: consumer/retail companies are eventual recipients of the economic rents, primarily in the form of social payments, which are given to consumers, who eventually pass it on to consumer companies; and such companies are insulated against the risks/uncertainties around tax breaks and power shifts.

However, in practice, such an investment case is not so straightforward. On the one hand, the majority of consumer stories available to equity investors (food retail, vodka, protein production) are driven more by structural elements than by pure consumption dynamics. In food retail, for instance, the majority of growth can be explained by selling space expansion and food inflation, which consumption trends have only a marginal effect on overall reported growth. On the other hand, while the Russian government has traditionally been hands-off when it comes to the consumer sector, this changed during the financial crisis in 2009. Recently, it has become increasingly active in the sector (the Retail Law in FY10, anti-alcohol reform, export bans on grain, increased social tax payments in FY11), which have created more uncertainty and volatility in the sector over the past two years.

Strategy view

We continue to maintain a favorable view on the consumer/retail sector in 2H11. While the deceleration in food inflation is likely to lead to declining LFL among food retailers, margins are likely to recover as the year progresses, maintaining positive earnings growth. On a lower inflation base in 2H11, we believe consumption trends are likely to look progressively better, further improving sentiment for the sector overall.

Top picks

- **Synergy** – A good stock in a tough sector: 1) stock underperformed due to SPO and to issues from more-liquid peer CEDC; 2) volume momentum remains strong and we expect double-digit growth in a declining market overall; 3) we believe the company’s strategy to leverage the regulatory changes to its advantage is likely to lead to volume growth above the 10% y-o-y targets; and 4) valuations remain compelling at a 50% discount to peers.

- **X5 Retail Group** – Execution in FY11 should help close discount to Magnit: We believe the market is overly skeptical about X5’s ability to execute on organic rollout. We believe the company will meet or exceed FY11 targets of over 100 organic openings and integration of 600 Kopeika stores, which implies management bandwidth for accelerating organic growth into FY12.
Figure 50. Consumer stock performance

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnit</td>
<td>142.53</td>
<td>158.00</td>
<td>1M</td>
<td>12.7</td>
<td>30.8</td>
<td>21.6</td>
<td>15.3</td>
<td>11.4</td>
<td>23%</td>
<td>42%</td>
<td>6.0</td>
<td>0.3%</td>
<td>7.6%</td>
<td>7.9%</td>
</tr>
<tr>
<td>X5 Retail Group</td>
<td>39.50</td>
<td>54.00</td>
<td>1M</td>
<td>10.7</td>
<td>33.0</td>
<td>20.6</td>
<td>12.3</td>
<td>9.4</td>
<td>16%</td>
<td>60%</td>
<td>4.5</td>
<td>0.0%</td>
<td>7.2%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Pharmstandard</td>
<td>22.30</td>
<td>26.00</td>
<td>1M</td>
<td>3.4</td>
<td>13.3</td>
<td>11.4</td>
<td>8.6</td>
<td>6.9</td>
<td>15%</td>
<td>17%</td>
<td>3.1</td>
<td>0.0%</td>
<td>39.9%</td>
<td>39.7%</td>
</tr>
<tr>
<td>O’Key</td>
<td>11.10</td>
<td>15.00</td>
<td>1M</td>
<td>3.0</td>
<td>23.3</td>
<td>15.8</td>
<td>11.2</td>
<td>8.3</td>
<td>23%</td>
<td>48%</td>
<td>5.2</td>
<td>0.0%</td>
<td>7.9%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Dixy Group</td>
<td>16.50</td>
<td>22.50</td>
<td>1M</td>
<td>1.8</td>
<td>8.5</td>
<td>8.3</td>
<td>6.8</td>
<td>6.8</td>
<td>8%</td>
<td>3%</td>
<td>2.1</td>
<td>0.0%</td>
<td>33.5%</td>
<td>32.9%</td>
</tr>
<tr>
<td>MHP</td>
<td>9.01</td>
<td>10.75</td>
<td>1M</td>
<td>1.6</td>
<td>15.1</td>
<td>11.4</td>
<td>6.4</td>
<td>4.7</td>
<td>34%</td>
<td>33%</td>
<td>3.6</td>
<td>1.3%</td>
<td>5.3%</td>
<td>5.7%</td>
</tr>
<tr>
<td>M.Video</td>
<td>13.73</td>
<td>21.00</td>
<td>1M</td>
<td>1.2</td>
<td>42.7</td>
<td>25.7</td>
<td>8.4</td>
<td>6.8</td>
<td>109%</td>
<td>66%</td>
<td>5.1</td>
<td>0.0%</td>
<td>6.1%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Cherkizovo Group</td>
<td>18.55</td>
<td>21.00</td>
<td>2M</td>
<td>1.2</td>
<td>9.2</td>
<td>7.0</td>
<td>9.0</td>
<td>6.9</td>
<td>-8%</td>
<td>33%</td>
<td>1.5</td>
<td>0.0%</td>
<td>15.0%</td>
<td>17.7%</td>
</tr>
<tr>
<td>Avangard</td>
<td>16.70</td>
<td>22.50</td>
<td>1M</td>
<td>1.1</td>
<td>5.7</td>
<td>5.7</td>
<td>5.0</td>
<td>4.8</td>
<td>2%</td>
<td>1%</td>
<td>1.2</td>
<td>0.0%</td>
<td>38.6%</td>
<td>35.8%</td>
</tr>
<tr>
<td>CEDC</td>
<td>9.96</td>
<td>17.00</td>
<td>1H</td>
<td>0.9</td>
<td>11.4</td>
<td>9.1</td>
<td>8.9</td>
<td>7.9</td>
<td>94%</td>
<td>26%</td>
<td>0.5</td>
<td>0.0%</td>
<td>20.4%</td>
<td>21.3%</td>
</tr>
<tr>
<td>Synergy Group</td>
<td>34.62</td>
<td>55.00</td>
<td>1H</td>
<td>0.7</td>
<td>8.7</td>
<td>7.4</td>
<td>5.4</td>
<td>4.4</td>
<td>46%</td>
<td>22%</td>
<td>1.2</td>
<td>0.0%</td>
<td>17.1%</td>
<td>17.4%</td>
</tr>
<tr>
<td>Seventh Continent</td>
<td>8.26</td>
<td>10.00</td>
<td>2S</td>
<td>0.6</td>
<td>14.2</td>
<td>11.7</td>
<td>6.0</td>
<td>5.3</td>
<td>0%</td>
<td>22%</td>
<td>0.9</td>
<td>0.0%</td>
<td>7.7%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Rosinter</td>
<td>12.54</td>
<td>18.00</td>
<td>2H</td>
<td>0.2</td>
<td>18.1</td>
<td>9.5</td>
<td>7.0</td>
<td>4.7</td>
<td>12%</td>
<td>90%</td>
<td>3.6</td>
<td>0.0%</td>
<td>9.0%</td>
<td>11.2%</td>
</tr>
</tbody>
</table>

Source: Citi Investment Research and Analysis
The impact of the rentier system on the sector

The benefit to the telecom sector from the rentier economy is twofold, in our view. First, it enjoys growth in the population’s consumption capacity, as the rents trickle down through the economy. Secondly, the ability of the owners to extract some of the rents in an environment of favourable regulation, which in can be viewed as a type of subsidy from the state. Examples of the latter include free mobile licenses (GSM 900/1800 MHz and UMTS 1.9-2.1GHz), historically little state intervention in pricing of mobile services, and regulatory approvals of price increases in fixed line.

More recently, however, there has been a notable reduction in “subsidies” to the sector, especially in mobile, as we are seeing more resistance from the state to allocate remaining frequencies (LTE), more aggressive intervention into mobile pricing policies (international and regional roaming for example). This has coincided with the reorganization of the state-controlled fixed telecom sector, and therefore, could be interpreted as an attempt to redistribute some of the rent from the owners of mobile operators to the owners of incumbent fixed-line operators.

Consumption capacity, which continue to increase as the benefits of higher commodity prices are passed down to the population, remains a driver of telecom growth. Despite SIM penetration over 150% (of population) and fixed penetration over 90% (of households) telecom revenue in Russia is growing in the high single digits. Industry profitability has been something of a concern in the past 12 months due to increased competition, but we see signs of competition subsiding which should drive a margin recovery, in mobile in particular, from 2Q11.

Strategy view

Year-to-date Russian mobiles have been one of the worst performers due to concerns over margin declines in the sector, driven primarily by the competition from No 2 operator MegaFon (not rated). Comments from the operators, as well as a decline in overall subscriber growth on the market so far this year, make us believe that margins are likely to recover (at least on the back of lower commission costs) from 2Q11.

Top picks

- **MTS** – We believe investor concerns over margin performance are well priced in; consensus expectations have come down in the past two months (consensus EBITDA margin forecast came down by 1.1pp to 42.4% for FY11, and by 0.4pp to 42.5% for FY12). The stock is trading at 4.1x EV/EBITDA 2012e cons (8.8x PE12e) at discount to CEEMEA peers and offers 6.5% dividend yield FY11e (8% 12e).
The Russian Hunter
7 July 2011

Figure 56. Telecom and media stock performance

Figure 57. Telecom sector relative performance

Figure 58. Mobile market subscriber net adds ('000s) - by Operator

Figure 59. 12m forward P/E

Figure 60. Telecom and media stock valuations
Transport and Infrastructure

The impact of the rentier system on the sector

Characteristics of the rentier economy are present mostly in the regulated rail sector, in our view. The current tariff structure is set up in a way to benefit commodity producers where cost of transportation is a meaningful portion of the commodity price. A suitable example of such commodity producers are coal companies where rail infrastructure and locomotive tariffs are set below the cost of providing these services. To fill in these profit shortfalls, higher tariffs are applied by RZhD (the government-owned national rail carrier) to commodities where transportation costs make up a smaller percentage of the commodity price. A good example of this cross-subsidization can be observed with ferrous and non-ferrous metals. The on-going rail reform is expected to harmonize these differences and to diminish the role of cross-subsidization. From a historical perspective, Russian railways often played the role of an intermediary between commodity producers and end users in the rentier economy. Tariff increases over the past few years have not been sufficient to cover elementary needs of the rail monopoly, with the government having to step in to provide capital injections in the form of direct subsidies. The most recent discussions on RZhD’s upcoming tariff rate increases advocated limiting annual hikes to the rate of inflation. Privatization of RZhD subsidiaries is one potential source of filling in the profit shortfall although this is unlikely to be sufficient to meet the monopoly’s needs and the government will likely have to step in with additional capital injections.

Rail reforms were instrumental in liberalizing the railcar segment and attracting much-needed private capital to renew ageing rolling stock (e.g. Globaltrans). Liberalization of pricing in the locomotive segment and introduction of attractive terms may similarly allow private operators to participate in the renewal of the locomotive stock.

Private ownership in the port segment is quite widespread in the Russian Federation with operators allowed to apply for tariff increases to the FTS (Federal Tariff Service) as long as they are justified by capital spending in port infrastructure or to offset inflationary pressures. In some geographic areas, where competition among port operators is high (e.g. Port of St. Petersburg), stevedoring operators are allowed to change pricing based on evolving market conditions.

Strategy view

Transport stocks are likely to be range-bound over July-August on an expected dearth of meaningful newsflow. That said, September is likely to breathe some life into the sector as a number of companies start reporting financial results (e.g. Globaltrans, TransContainer, Novorossiysk Commercial Seaport), the sale of a 75% stake in Freight One by auction (currently 100% owned by RZhD) should be underway and investors will be coming back from summer holidays searching for fresh ideas.

Top picks

- **Globaltrans** – Globaltrans is due to report 1H11 results in early September and we believe the data won’t disappoint. New railcar deployment coupled with positive dynamics in the company’s key cargoes gleaned from industry data should be key drivers behind the group’s 1H11 results. In addition, we believe the company will participate in the September Freight One auction. The stock trades at discounts of 22% and 19% on 2012E EV/EBITDA relative to DM and EM rail operators.
Figure 61. Transport and infrastructure stock performance

Figure 62. Russian transport sector relative performance

Source: Datastream

Figure 63. Rail transportation volumes

Figure 64. Airlines transportation volumes

Source: Rosstat

Figure 65. Transport and infrastructure stock valuation

Source: Citi Investment Research and Analysis. Items marked with * are sourced from Datastream consensus as non-rated
The Russian Hunter
7 July 2011

Context: Performance

Figure 66. Currency performance

<table>
<thead>
<tr>
<th>Currency</th>
<th>1m</th>
<th>YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRL</td>
<td>1.9%</td>
<td>6.6%</td>
</tr>
<tr>
<td>KR</td>
<td>0.8%</td>
<td>6.4%</td>
</tr>
<tr>
<td>ZAR</td>
<td>-2.0%</td>
<td>9.6%</td>
</tr>
<tr>
<td>INR</td>
<td>0.4%</td>
<td>9.0%</td>
</tr>
<tr>
<td>EUR</td>
<td>0.2%</td>
<td>8.0%</td>
</tr>
<tr>
<td>RUB</td>
<td>0.2%</td>
<td>9.6%</td>
</tr>
<tr>
<td>CNY</td>
<td>0.2%</td>
<td>9.6%</td>
</tr>
<tr>
<td>MXN</td>
<td>-0.2%</td>
<td>5.9%</td>
</tr>
<tr>
<td>TWD</td>
<td>-0.6%</td>
<td>1.4%</td>
</tr>
<tr>
<td>GBP</td>
<td>-2.2%</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

Source: Datastream

Figure 67. Country performance, MSCI USD indices

<table>
<thead>
<tr>
<th>Country</th>
<th>1m</th>
<th>YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>3.1%</td>
<td>12.0%</td>
</tr>
<tr>
<td>Brazil</td>
<td>-1.8%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Russia</td>
<td>-0.6%</td>
<td>6.7%</td>
</tr>
<tr>
<td>US</td>
<td>1.9%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Japan</td>
<td>-5.6%</td>
<td>1.8%</td>
</tr>
<tr>
<td>South Korea</td>
<td>-0.9%</td>
<td>8.9%</td>
</tr>
<tr>
<td>India</td>
<td>-4.0%</td>
<td>0.5%</td>
</tr>
<tr>
<td>South Africa</td>
<td>-1.5%</td>
<td>4.2%</td>
</tr>
<tr>
<td>China</td>
<td>-1.2%</td>
<td>8.9%</td>
</tr>
<tr>
<td>Taiwan</td>
<td>-0.2%</td>
<td>8.9%</td>
</tr>
</tbody>
</table>

Source: Datastream

Figure 68. Global sector performance, MSCI World, USD

<table>
<thead>
<tr>
<th>Sector</th>
<th>1m</th>
<th>YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer discretion</td>
<td>2.7%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Utilities</td>
<td>2.0%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Industrials</td>
<td>1.8%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Financials</td>
<td>1.8%</td>
<td>6.3%</td>
</tr>
<tr>
<td>IT</td>
<td>2.0%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Materials</td>
<td>0.6%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Energy</td>
<td>-0.2%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Healthcare</td>
<td>-0.2%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Telecoms</td>
<td>1.4%</td>
<td>5.5%</td>
</tr>
<tr>
<td>Consumer staples</td>
<td>-1.4%</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

Source: Datastream

Figure 69. VIX

Source: Datastream

Figure 70. EMBI spreads

Source: Datastream

Figure 71. Commodity performance and forecasts

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Price</th>
<th>1M</th>
<th>YTD</th>
<th>Performance</th>
<th>Forecast Q4 2011</th>
<th>Forecast Q4 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil WTI, $/bbl</td>
<td>95.42</td>
<td>-4.9%</td>
<td>4.4%</td>
<td></td>
<td>90</td>
<td>95</td>
</tr>
<tr>
<td>Oil Brent, $/bbl</td>
<td>113.11</td>
<td>-3.1%</td>
<td>21.9%</td>
<td></td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Oil Urals, $/bbl</td>
<td>110.04</td>
<td>-3.4%</td>
<td>21.0%</td>
<td></td>
<td>2772</td>
<td>2671</td>
</tr>
<tr>
<td>Aluminium, $/ton</td>
<td>2 503.25</td>
<td>-5.6%</td>
<td>1.7%</td>
<td></td>
<td>2772</td>
<td>2671</td>
</tr>
<tr>
<td>Copper, $/ton</td>
<td>9 414.00</td>
<td>3.6%</td>
<td>-2.4%</td>
<td></td>
<td>9 727</td>
<td>9 248</td>
</tr>
<tr>
<td>Zinc, US$/lb</td>
<td>2 342.00</td>
<td>4.6%</td>
<td>-4.2%</td>
<td></td>
<td>2 218</td>
<td>2 621</td>
</tr>
<tr>
<td>Nickel, $/ton</td>
<td>23 395.00</td>
<td>0.7%</td>
<td>-5.3%</td>
<td></td>
<td>28 224</td>
<td>27 090</td>
</tr>
<tr>
<td>Steel, HRC Europe, $/ton</td>
<td>761.45</td>
<td>1.4%</td>
<td>10.1%</td>
<td></td>
<td>819</td>
<td>819</td>
</tr>
<tr>
<td>Gold, $/oz</td>
<td>1 510.78</td>
<td>-2.2%</td>
<td>6.6%</td>
<td></td>
<td>1 450</td>
<td>1 300</td>
</tr>
<tr>
<td>Platinum, $/oz</td>
<td>1 722.00</td>
<td>-5.8%</td>
<td>-1.9%</td>
<td></td>
<td>1 850</td>
<td>1 900</td>
</tr>
<tr>
<td>Palladium, $/oz</td>
<td>761.00</td>
<td>-2.4%</td>
<td>-4.5%</td>
<td></td>
<td>850</td>
<td>975</td>
</tr>
<tr>
<td>Wheat, $/ton</td>
<td>236.81</td>
<td>-14.7%</td>
<td>-17.4%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Datastream, Citi Investment Research and Analysis
# Context: Valuation

### Figure 72. 12m forward P/E

![Graph showing 12m forward P/E over time for Russia, EM, and DM](image1)

- **Source:** Datastream

### Figure 73. 12m trailing P/B

![Graph showing 12m trailing P/B over time for Russia, EM, and DM](image2)

- **Source:** Datastream

### Figure 74. Countries P/E

![Bar chart showing P/E for various countries: Mexico, Taiwan, India, Japan, US, DM, South Africa, GEM, Germany, China, Brazil, Korea, Russia ex energy, Russia](image3)

- **Source:** Datastream, Citi Investment Research and Analysis

### Figure 75. Currency PPP vs GDP per capita

![Graph showing currency PPP vs GDP per capita for different countries](image4)

- **Source:** IMF

### Figure 76. Real effective ruble exchange rate

![Graph showing real effective ruble exchange rate from 2001 to 2011 for Russia and GEM](image5)

- **Source:** Bank of Russia

### Figure 77. PE 2012

![Bar chart showing PE for various sectors: Retail, Fertilizers, Transport*, Food producers, Steel, Utilities, Banks, Oil, Base metals, Mobile](image6)

- **Source:** Citi Investment Research and Analysis
Appendix A-1

Analyst Certification

The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst’s name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

IMPORTANT DISCLOSURES

DMBH rating distribution versus Investment Banking service provision in the past 12 months as at 30 June 2011 is as follows: Buy (1) representing 30% of the DMBH coverage 0% of which are IB clients, Hold (2) representing 36% of the DMBH coverage 0% of which are IB clients, Sell (3) representing 34% of the DMBH coverage 0% of which are IB clients.

Kingsmill Bond, Strategist, holds a long position in the securities of Gazprom, Sberbank RF, Halyk Bank, TNK-BP Holding, Mobile Telesystems OJSC.

Citigroup Global Markets Inc. or its affiliates beneficially owns 1% or more of any class of common equity securities of Mobile Telesystems OJSC, Novatek OAO, Transneft. This position reflects information available as of the prior business day.

Within the past 12 months, Citigroup Global Markets Inc. or its affiliates has acted as manager or co-manager of an offering of securities of CEDC, Gazprom, Lukoil, NOMOS-BANK OAO, Novatek OAO, Sberbank RF, Gazpromneft, TNK-BP Holding, Transneft, VimpelCom, Bank VTB.

Citigroup Global Markets Inc. or its affiliates has received compensation for investment banking services provided within the past 12 months from CEDC, Severstal, Gazprom, Norilsk Nickel, Halyk Bank, Kazmunaigas E&P, Lukoil, Mobile Telesystems OJSC, NOMOS-BANK OAO, Novatek OAO, Pharmstandard, Rosneft, Sberbank RF, Gazpromneft, Tatneft, Transneft, VimpelCom, Bank VTB.

Citigroup Global Markets Inc. or its affiliates expects to receive or intends to seek, within the next three months, compensation for investment banking services from Severstal, Gazprom, Norilsk Nickel, Kazakhmys Plc, Kazmunaigas E&P, Lukoil, NOMOS-BANK OAO, Rosneft, Gazpromneft, Tatneft, Transneft, VimpelCom, Bank VTB.

Citigroup Global Markets Inc. or an affiliate received compensation for products and services other than investment banking services from United Company Rusal, CEDC, Severstal, Dixy Group, Gazprom, Globaltrans, Norilsk Nickel, Evraz Group, Halyk Bank, Kazakhmys Plc, Kazkommertsbank, Kazmunaigas E&P, Lukoil, MMK, Mobile Telesystems OJSC, Mechel, Novatek OAO, Pharmstandard, X5 Retail Group, Rosneft, Rosinter, Sberbank RF, Gazpromneft, Surgutneftegaz, Tatneft, TNK-BP Holding, Transneft, VimpelCom, Bank VTB.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as investment banking client(s): Bank VTB, CEDC, Severstal, Gazprom, Norilsk Nickel, Halyk Bank, Kazakhmys Plc, Kazmunaigas E&P, Lukoil, Mobile Telesystems OJSC, NOMOS-BANK OAO, Novatek OAO, Pharmstandard, Rosneft, Sberbank RF, Gazpromneft, Tatneft, Transneft, VimpelCom.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, securities-related: United Company Rusal, CEDC, Severstal, Dixy Group, Gazprom, Norilsk Nickel, Evraz Group, Halyk Bank, Kazakhmys Plc, Kazkommertsbank, Kazmunaigas E&P, Lukoil, MMK, Mobile Telesystems OJSC, Novatek OAO, Pharmstandard, X5 Retail Group, Rosneft, Sberbank RF, Gazpromneft, Surgutneftegaz, Tatneft, TNK-BP Holding, Transneft, VimpelCom, Bank VTB.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, non-securities-related: United Company Rusal, CEDC, Severstal, Dixy Group, Gazprom, Globaltrans, Norilsk Nickel, Evraz Group, Halyk Bank, Kazakhmys Plc, Kazkommertsbank, Kazmunaigas E&P, Lukoil, MMK, Mobile Telesystems OJSC, Mechel, Novatek OAO, Pharmstandard, X5 Retail Group, Rosneft, Rosinter, Sberbank RF, Gazpromneft, Surgutneftegaz, Tatneft, TNK-BP Holding, Transneft, VimpelCom, Bank VTB.

Citigroup Global Markets Inc. or an affiliate received compensation in the past 12 months from Bank VTB.

Analysts' compensation is determined based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates ("the Firm"). Like all Firm employees, analysts receive compensation that is impacted by overall firm profitability which includes investment banking revenues.

The Firm is a market maker in the publicly traded equity securities of United Company Rusal, CEDC, Gazprom, Norilsk Nickel, Lukoil, Gazpromneft, Surgutneftegaz.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Investment Research & Analysis product ("the Product"), please contact Citi Investment Research & Analysis, 388 Greenwich Street, 28th Floor, New York, NY, 10013, Attention: Legal/Compliance. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm’s disclosure website at www.citigroupgeo.com. Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Historical disclosures (for up to the past three years) will be provided upon request.

Citi Investment Research & Analysis Ratings Distribution

<table>
<thead>
<tr>
<th>Data current as of 30 Jun 2011</th>
<th>12 Month Rating</th>
<th>Relative Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Buy</td>
<td>Hold</td>
</tr>
<tr>
<td>Citi Investment Research &amp; Analysis Global Fundamental Coverage</td>
<td>54%</td>
<td>38%</td>
</tr>
<tr>
<td>% of companies in each rating category that are investment banking clients</td>
<td>45%</td>
<td>41%</td>
</tr>
<tr>
<td>Citi Investment Research &amp; Analysis Quantitative World Radar Screen Model Coverage</td>
<td>30%</td>
<td>40%</td>
</tr>
</tbody>
</table>

The Russian Hunter
7 July 2011
For securities in developed markets (US, UK, Europe, Japan, and Australia/New Zealand), investment ratings are:
Buy (1) (expected total return of 10% or more); Hold (2) (5%-15% for Low-Risk stocks, 10%-20% for Medium-Risk stocks, 15%-30% for High-Risk stocks, and 20%-40% for Speculative stocks); Sell (3) (negative total return).

Citi Investment Research & Analysis Quantitative Decision Tree Model Coverage
% of companies in each rating category that are investment banking clients 26% 21% 20%
Citi Investment Research & Analysis Asia Quantitative Radar Screen Model Coverage
% of companies in each rating category that are investment banking clients 53% 0% 43%
Citi Investment Research & Analysis Australia Radar Model Coverage
% of companies in each rating category that are investment banking clients 20% 60% 20%

Guide to Citi Investment Research & Analysis (CIRA) Fundamental Research Investment Ratings:
CIRA’s stock recommendations include a risk rating and an investment rating.

Risk ratings, which take into account both price volatility and fundamental criteria, are: Low (L), Medium (M), High (H), and Speculative (S).

Investment ratings are a function of CIRA’s expectation of total return (forecast price appreciation and dividend yield within the next 12 months) and risk rating.

Analysts may place covered stocks “Under Review” in response to exceptional circumstances (e.g. lack of information critical to the analyst’s thesis) affecting the company and/or trading in the company’s securities (e.g. trading suspension). Stocks placed “Under Review” will be monitored daily by management. As soon as practically possible, the analyst will publish a note re-establishing a rating and investment thesis.

To satisfy regulatory requirements, we correspond Under Review to Hold in our ratings distribution table for our 12-month fundamental rating system. However, we reiterate that we do not consider Under Review to be a recommendation.

Relative three-month ratings: CIRA may also assign a three-month relative call (or rating) to a stock to highlight expected out-performance (most preferred) or under-performance (least preferred) versus the analyst’s coverage universe over a 3 month period. The relative call may highlight a specific near-term catalyst or event impacting the company or the market that is anticipated to have a short-term price impact on the equity securities of the company. Absent any specific catalyst the analyst(s) will indicate the most and least preferred stocks in his coverage universe, explaining the basis for this short-term view. This three-month view may be different from and does not affect a stock’s fundamental equity rating, which reflects a longer-term absolute return expectation. For purposes of NASD/NYSE ratings-distribution-disclosure rules, most preferred calls correspond to a buy recommendation and least preferred calls correspond to a sell recommendation.

For securities in emerging markets (Asia Pacific, Emerging Europe/Middle East/Africa, and Latin America), investment ratings are: Buy (1) (expected total return of 10% or more for Low-Risk stocks, 15% or more for Medium-Risk stocks, 20% or more for High-Risk stocks, and 35% or more for Speculative stocks); Hold (2) (5%-15% for Low-Risk stocks, 10%-20% for Medium-Risk stocks, 15%-30% for High-Risk stocks, and 20%-40% for Speculative stocks); and Sell (3) (negative total return).

For securities in developed markets (US, UK, Europe, Japan, and Australia/New Zealand), investment ratings are: Buy (1) (expected total return of 10% or more); Hold (2) (5%-15% for Low-Risk stocks, 10%-20% for Medium-Risk stocks, 15%-30% for High-Risk stocks, and 20%-40% for Speculative stocks); and Sell (3) (negative total return).

Guide to Citi Investment Research & Analysis (CIRA) Quantitative Research Investment Ratings:
CIRA Quantitative Research World Radar Screen recommendations are based on a globally consistent framework to measure relative value and momentum for a large number of stocks across global developed and emerging markets. Relative value and momentum rankings are equally weighted to produce a global attractiveness score for each stock. The scores are then ranked and put into deciles. A stock with a decile rating of 1 denotes an attractiveness score in the top 10% of the universe (most attractive). A stock with a decile rating of 10 denotes an attractiveness score in the bottom 10% of the universe (least attractive).

CIRA Asia Quantitative Radar Screen model recommendations are based on a regionally consistent framework to measure relative value and momentum for a large number of stocks across Asian developed and emerging markets. Relative value and momentum rankings are equally weighted to produce a global attractiveness score for each stock. The scores are then ranked and put into quintiles. A stock with a quintile rating of 1 denotes an attractiveness score in the top 20% of the universe (most attractive). A stock with a quintile rating of 5 denotes an attractiveness score in the bottom 20% of the universe (least attractive).

CIRA Australia Quantitative Radar Screen model recommendations are based on a robust framework to measure relative value and momentum for a large number of stocks across the Australian market. Stocks with a ranking of 1 denotes a stock that is above average in terms of both value and momentum relative to the stocks in the Australian market. A ranking of 10 denotes a stock that is below average in terms of both value and momentum relative to the stocks in the Australian market.

CIRA Quantitative Decision Tree model recommendations are based on a predetermined set of factors to rate the relative attractiveness of stocks. These factors are detailed in the text of the report. The Decision Tree model forecasts whether stocks are attractive or unattractive relative to other stocks in the same sector (based on the Russell 1000 sector classifications).

For purposes of NASD/NYSE ratings-distribution-disclosure rules, a Citi Investment Research & Analysis (CIRA) Quantitative World Radar Screen recommendation of (1), (2) or (3) most closely corresponds to a buy recommendation; a recommendation from this product group of (4), (5), (6) or (7) most closely corresponds to a hold recommendation; and a recommendation of (8), (9) or (10) most closely corresponds to a sell recommendation. An (NR) recommendation indicates that the stock is no longer on the screen.

For purposes of NASD/NYSE ratings distribution disclosure rules, a CIRA Asia Quantitative Radar Screen recommendation of (1) most closely corresponds
to a buy recommendation; a CIRA Asia Quantitative Radar Screen recommendation of (2), (3), (4) most closely corresponds to a hold recommendation; and a recommendation of (5) most closely corresponds to a sell recommendation. An (NR) recommendation indicates that the stock is no longer in the screen. For purposes of NASD/NYSE ratings-distribution-disclosure rules, a CIRA Quantitative Research Decision Tree model or Quantitative Research Australia Radar Screen recommendation of "attractive" (1) most closely corresponds to a buy recommendation. All other stocks in the sector are considered to be "unattractive" (10) which most closely corresponds to a sell recommendation. An (NR)/(0) recommendation indicates that the stock is no longer in the screen.

Recommendations are based on the relative attractiveness of a stock, thus can not be directly equated to buy, hold and sell categories. Accordingly, your decision to buy or sell a security should be based on your personal investment objectives and only after evaluating the stock's expected relative performance.

NON-US RESEARCH ANALYST DISCLOSURES

Non-US research analysts who have prepared this report (i.e., all research analysts listed below other than those identified as employed by Citigroup Global Markets Inc.) are not registered/qualified as research analysts with FINRA. Such research analysts may not be associated persons of the member organization and therefore may not be subject to the NYSE Rule 472 and NASD Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. The legal entities employing the authors of this report are listed below:

ZAO Citibank
Kingsmill Bond; Andrey Kuznetsov; Mikhail Seleznev, CFA; Brady Martin, CFA; Ronald Paul Smith; Kirill Kazanli, CFA; Daniel Yakub; Maria Semikhatova; Natalia Novikova

Citigroup Global Markets Ltd
Kenan Najafov; Rhys D Summerton; Simon Nellis; Mark C Fletcher; Elina Ribakova; Jon H Bergtheil; Anindyia Mohinta; Andrew Howell, CFA

OTHER DISCLOSURES

Citigroup Global Markets Inc. and/or its affiliates has a significant financial interest in relation to United Company Rusal, Severstal, Gazprom, Rosneft, Gazpromneft, VimpelCom, Bank VTB. (For an explanation of the determination of significant financial interest, please refer to the policy for managing conflicts of interest which can be found at www.citigroupgeo.com.)

For securities recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in the issuers' financial instruments and may act as principal in connection with such transactions. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the issuer(s) discussed in the Product. The Firm may engage in securities transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

Citigroup Global Markets Inc. or its affiliates acts as a corporate broker to Severstal, Kazakhmys Plc.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citi Investment Research & Analysis (CIRA) does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of CIRA to provide research coverage of the/those issuer(s) mentioned herein, including in response to news affecting this issuer, subject to applicable quiet periods and capacity constraints. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security. Any decision to purchase securities mentioned in the Product must take into account existing public information on such security or any registered prospectus.

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more volatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Please ask your Financial Consultant for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

Important Disclosures for Morgan Stanley Smith Barney LLC Customers: Morgan Stanley & Co. Incorporated (Morgan Stanley) research reports may be available about the companies that are the subject of this Citi Investment Research & Analysis (CIRA) research report. Ask your Financial Advisor or use smithbarney.com to view any available Morgan Stanley research reports in addition to CIRA research reports. Important disclosure regarding the relationship between the companies that are the subject of this CIRA research report and Morgan Stanley Smith Barney LLC and its affiliates are available at the Morgan Stanley Smith Barney disclosure website at www.morganstanleysmithbarney.com/researchdisclosures. The required disclosures provided by Morgan Stanley and Citigroup Global Markets, Inc. on Morgan Stanley and CIRA research relate in part to the separate businesses of Citigroup Global Markets, Inc. and Morgan Stanley that now form Morgan Stanley Smith Barney LLC, rather than to Morgan Stanley...

This CIRA research report has been reviewed and approved on behalf of Morgan Stanley Smith Barney LLC. This review and approval was conducted by the same person who reviewed this research report on behalf of CIRA. This could create a conflict of interest.

The Citigroup legal entity that takes responsibility for the production of the Product is the legal entity which the first named author is employed by. The Product is made available in Australia through Citigroup Global Markets Australia Pty Ltd. (ABN 64 003 114 832 and AFSL No. 240992), participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in Australia to Private Banking wholesale clients through Citigroup Pty Limited (ABN 88 004 325 080 and AFSL 238098). Citigroup Pty Limited provides all financial product advice to Australian Private Banking wholesale clients through bankers and relationship managers. If there is any doubt about the suitability of investments held in Citigroup Private Bank accounts, investors should contact the Citigroup Private Bank in Australia. Citigroup companies may compensate affiliates and other representatives for providing products and services to clients. The Product is made available in Brazil by Citigroup Global Markets Brasil - CCTVM SA, which is regulated by CVM - Comissão de Valores Mobiliários, BACEN - Brazilian Central Bank, APIMEC - Associação dos Analistas e Profissionais de Investimento do Mercado de Câmbio e ANBID - Associação Nacional dos Bancos de Investimento. Av. Paulista, 1111 - 11th andar - CEP. 01311920 - Sao Paulo - SP. If the Product is being made available in certain provinces of Canada by Citigroup Global Markets (Canada) Inc. ("CGM Canada"), CGM Canada has approved the Product. Citigroup Place, 123 Front Street West, Suite 1100, Toronto, Ontario M5J 2M3. This product is available in Chile through Banchile Corredores de Bolsa S.A., an indirect subsidiary of Citigroup Inc., which is regulated by the Superintendencia de Valores y Seguros. Agustinas 975, piso 2, Santiago, Chile. The Product is made available in France by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 1-5 Rue Paul Cézanne, 8ème, Paris, France. The Product is distributed in Germany by Citigroup Global Markets Deutschland AG ("CGMD"), which is regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin), CGMD, Reutenweg 16, 60323 Frankfurt am Main. If the Product is made available in Hong Kong by, or on behalf of, Citigroup Global Markets Asia Ltd., it is attributable to Citigroup Global Markets Asia Ltd., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Product is made available in Hong Kong by The Citigroup Private Bank to its clients, it is attributable to Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. The Citigroup Private Bank and Citibank N.A. is regulated by the Hong Kong Monetary Authority. The Product is made available in India by Citigroup Global Markets India Private Limited, which is regulated by Securities and Exchange Board of India. Bakhitwara, Nariman Point, Mumbai 400-021. The Product is made available in Indonesia through PT Citigroup Securities Indonesia. 5/F, Citibank Tower, Bapindo Plaza, Jl. Jend. Sudirman Kav. 54-55, Jakarta 12190. Neither this Product nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable capital market laws and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Financial Supervisory Service and the and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market laws and regulations. The Product is made available in Israel through Citibank NA, regulated by the Bank of Israel and the Israel Securities Authority. Citibank, N.A. Platinum Building, 21 Ha'arba'ah St, Tel Aviv, Israel. The Product is made available in Italy by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. Foro Buonaparte 16, Milan, 20121, Italy. The Product is made available in Japan by Citigroup Global Markets Japan Inc. ("CGMJ"), which is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Shin-Marunouchi Building, 1-5-1 Marunouchi, Chiyoda-ku, Tokyo 100-6520 Japan. If the Product was distributed by Nikko Cordial Securities Inc. it is being so distributed under license. In the event that an error is found in an CGMJ research report, a revised version will be posted on the Firm's Global Equities Online (GEO) website. If you have questions regarding GEO, please call (81 3) 6270-3019 for help. The Product is made available in Korea by Citigroup Global Markets Korea Securities Ltd., which is regulated by the Financial Supervisory Commission, the Financial Supervisory Service and the Korea Financial Investment Association (KOFIA). Citibank Building, 39 Da-dong, Jung-gu, Seoul 110-180, Korea. KOFIA makes available registration information of research analysts on its website. Please visit the following website if you wish to find KOFIA registration information on research analysts of Citigroup Global Markets Korea Securities Ltd. http://dis.kofia.or.kr/fs/dis2/fundMgr/DISFundMgrAnalytPop.jsp?companyId=02-A030300&pageDiv=02. The Product is made available in Malaysia by Citigroup Global Markets Malaysia Sdn Bhd, which is regulated by Malaysia Securities Commission. Menara Citibank, 165 Jalan Ampang, Kuala Lumpur, 50450. The Product is made available in Mexico by Acciones y Valores Banamex, S.A. De C. V., Casa de Bolsa, Integrante del Grupo Financiero Banamex ("Accival") which is a wholly owned subsidiary of Citigroup Inc. and is regulated by Comision Nacional Bancaria y de Valores. Reforma 398, Col. Juarez, 06600 Mexico, D.F. In New Zealand the Product is made available through Citigroup Global Markets New Zealand Ltd. (Company Number 604457), a Participant of the New Zealand Exchange and Securities and Futures Commission, the Financial Supervisory Service and the New Zealand Securities Commission. Level 19, Mobile on the Park, 157 Lambton Quay, Wellington. The Product is made available in Pakistan by Citibank N.A. Pakistan branch, which is regulated by the State Bank of Pakistan and Securities Exchange Commission, Pakistan. AWT Plaza, 1.1. Chundrarg Road, P.O. Box 4889, Karachi-74200. The Product is made available in the Philippines through Citicorp Financial Services and Insurance Brokerage Philippines, Inc., which is regulated by the Philippines Securities and Exchange Commission. 20th Floor Citibank Square Bldg. The Product is made available in Poland by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Nadzoru Finansowego. Dom Maklerski Banku Handlowego SA ul.Senatorska 16, 00-923 Warszawa. The Product is made available in the Russian Federation through ZAO Citibank, which is licensed to carry out banking activities in the Russian Federation in accordance with the general banking license issued by the Central Bank of the Russian Federation and brokerage activities in accordance with the license issued by the Federal Service for Financial Markets. Neither the Product nor any information contained in the Product shall be considered as advertising the securities mentioned in this report within the territory of the Russian Federation or outside the Russian Federation. The Product does not constitute an appraisal within the meaning of the Federal Law of the Russian Federation of 29 July 1998 No. 135-FZ (as amended) On Appraisal Activities in the Russian Federation. 8-10 Gasheka Street, 125047 Moscow. The Product is made available in Singapore through Citigroup Global Markets Singapore Pte. Ltd., a Capital Markets Services Licence holder, and regulated by Monetary Authority of Singapore. 1 Temasek Avenue, #38-02 Millenia Tower, Singapore 039192. The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A., Singapore branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. This report is distributed in Singapore by Citibank Singapore Ltd ("CSL") to selected Citigold/Citigold Private Clients. CSL provides no independent research or analysis of the substance or in preparation of this report. Please contact your Citigold/Citigold Private Client Relationship Manager in CSL if you have any queries on or any matters arising from or in connection with this report. Citigroup Global Markets (Pty) Ltd. is incorporated in the Republic of South Africa (company registration number 2000/025866/07) and its registered office...
is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa. The Product is made available in Spain by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 29 Jose Ortega Y Gassef, 4th Floor, Madrid, 28006, Spain. The Product is made available in Taiwan through Citigroup Global Markets Taiwan Securities Company Ltd., which is regulated by Securities & Futures Bureau. No portion of the report may be reproduced or quoted in Taiwan by the press or any other person. 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan. If the Product is related to non-Taiwan listed securities, neither the Product nor any information contained in the Product shall be considered as advertising the securities or making recommendation of the securities. The Product is made available in Thailand through Citicorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 18/F, 22/F and 29/F, 82 North Sathorn Road, Silom, Bangrak, Bangkok 10500, Thailand. The Product is made available in Turkey through Citibank AS which is regulated by Capital Markets Board. Tekfen Tower, Eski Buyukdere Caddei # 209 Kat 2B, 23294 Levent, Istanbul, Turkey. In the U.A.E, these materials (the “Materials”) are communicated by Citigroup Global Markets Limited, DIFC branch (“CGML”), an entity registered in the Dubai International Financial Center (“DIFC”) and licensed and regulated by the Dubai Financial Services Authority (“DFSA” to Professional Clients and Market Counterparties only and should not be relied upon or distributed to Retail Clients. A distribution of the different CIRA ratings distribution, in percentage terms for Investments in each sector covered is made available on request. Financial products and/or services to which the Materials relate will only be made available to Professional Clients and Market Counterparties. The Product is made available in United Kingdom by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. This material may relate to investments or services of a person outside of the UK or to other matters which are not regulated by the FSA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB. The Product is made available in United States by Citigroup Global Markets Inc, which is a member of FINRA and registered with the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013. Unless specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Limited, which is regulated by Financial Services Authority.

Pursuant to Comissão de Valores Mobiliários Rule 483, Citi is required to disclose whether a Citi related company or business has a commercial relationship with the subject company. Considering that Citi operates multiple businesses in more than 100 countries around the world, it is likely that Citi has a commercial relationship with the subject company. Many European regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of publication or distribution of investment research. The policy applicable to CIRA’s Products can be found at www.citigroupgeo.com. Compensation of equity research analysts is determined by equity research management and Citigroup’s senior management and is not linked to specific transactions or recommendations. The Product may have been distributed simultaneously, in multiple formats, to the Firm’s worldwide institutional and retail customers. The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would not be permitted. Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. The Product does not purport to identify the nature of the specific market or other risks associated with a particular transaction. Advice in the Product is general and should not be construed as personal advice given it has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs. Prior to acquiring any financial product, it is the client’s responsibility to obtain the relevant offer document for the product and consider it before making a decision as to whether to purchase the product. CIRA concurrently disseminates its research via proprietary and non-proprietary electronic distribution platforms. Periodically, individual analysts may also opt to circulate research to one or more clients by email. Such email distribution is discretionary and is done only after the research has been disseminated via the aforementioned distribution channels.

© 2011 Citigroup Global Markets Inc. Citi Investment Research & Analysis is a division of Citigroup Global Markets Inc. Citi and Citi with Arc Design are trademarks and service marks of Citigroup Inc. and its affiliates and are used and registered throughout the world. All rights reserved. Any unauthorized use, duplication, redistribution or disclosure of this report (the “Product”), including, but not limited to, redistribution of the Product by electronic mail, posting of the Product on a website or page, and/or providing to a third party a link to the Product, is prohibited by law and will result in prosecution. The information contained in the Product is intended solely for the recipient and may not be further distributed by the recipient to any third party. Where included in this report, MSCI sourced information is the exclusive property of Morgan Stanley Capital International Inc. (MSCI). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, redisseminated or used to create any financial products, including any indices. This information is provided on an “as is” basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are services marks of MSCI and its affiliates. The Firm accepts no liability whatsoever for the actions of third parties. The Product may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the Product refers to website material of the Firm, the Firm has not reviewed the linked site. Equally, except to the extent to which the Product refers to website material of the Firm, the Firm takes no responsibility for, and makes no representations or warranties whatsoever as to, the data and information contained therein. Such address or hyperlink (including addresses or hyperlinks to website material of the Firm) is provided solely for your convenience and information and the content of the linked site does not in any way form part of this document. Accessing such website or following such link through the Product or the website of the Firm shall be at your own risk and the Firm shall have no liability arising out of, or in connection with, any such referenced website.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST

EU10706C
Appendix O

Freedom of Information Requests, Bank of England
Dear Mr Dyrmose

Thank you for your email dated 4 December in which you ask for access under the Freedom of Information Act 2000 (‘Foi Act’) to:

‘....the name of the Bank of England’s current auditor firm and current law firm. Moreover, I would like to ask for how long the Bank has employed its current auditor firm and current law firm.’

The Bank of England’s (‘the Bank’s’) external auditor is KPMG Audit plc. You may like to be aware that this information is available within our Annual Report which can be found on the Bank’s website at:

www.bankofengland.co.uk/publications/annualreport/index.htm

The Bank renews its external auditor appointment at least every five years. The Bank can appoint the same external auditor for a second contract period. However, in recent years the Bank has done so after a tender of the position, in which the incumbent and other firms are invited to apply for the job.

The Bank has an in-house legal unit, which was established in 1992, and works with many different external law firms and external lawyers, as necessary.

Yours sincerely

Wendy Galvin
Public Information and Enquiries Group
Morten Dymose  
School of Economics & Finance  
University of St Andrews  
via email to:  
md284@st-andrews.ac.uk

Public Information and Enquiries Group  
Public Communications and Information Division  
T 020 7601 4878  
F 020 7601 5480  
enquiries@bankofengland.co.uk

19 January 2012

Please quote ref. FF 26242 on all correspondence

Dear Mr Dymose

Thank you for your email dated 19 December, further to my response of the same date to your Freedom of Information Act 2000 (‘FoI Act’) request dated 4 December. You ask:

1. For how many years has the current auditor, KPMG Audit plc, audited the Bank of England? In other words, when was KPMG first hired?
2. Since when has the Bank been required to renew its external auditors appointment at least every five years and when was the competitive tender introduced?

The Bank of England (‘the Bank’s) current auditors, KPMG Audit plc, first undertook the audit of the Bank’s accounts for the year ended February 2007, after a competitive tender. This was the first time a tender for the external auditor’s appointment was conducted by the Bank.

Yours sincerely

Public Information and Enquiries Group
6 February 2012

Please quote ref. FF 26277 on all correspondence

Dear Mr Dyrmose

Thank you for your email dated 8 January, in which you ask:

"I would like to know the names of the Bank of England’s auditor firms and law firms going back to the year 1850; or the closest year to this if a firm was employed before the year 1850 (e.g. 1848). In addition, I would like to know the actual period (dates) that each firm was employed by the Bank of England."

The Bank of England (‘the Bank’) first employed an external auditor in 1919, Deloitte, which became Deloitte Haskins & Sells in 1952. In 1990 the Bank was audited by Coopers & Lybrand Deloitte following a merger between Deloitte Haskins and Sells (UK) and Coopers and Lybrand. In 1993 Coopers & Lybrand were the Bank’s auditors, after Deloitte was dropped from the firm’s name, and in 1998 Coopers & Lybrand merged with Price Waterhouse to become PricewaterhouseCoopers, who were then the Bank’s auditors from 1999 onwards. In 2006, as you are aware, KPMG Audit plc was appointed as the Bank’s external auditors.

Turning now to law firms, it was the Bank’s practice in 1850 and for many years thereafter to appoint an individual lawyer rather than a law firm as such as the Bank’s ‘attorney and solicitor’. Based on some research we have conducted in the Bank in response to your request, the following individuals held that office from 1850, in some cases the office was held on a joint basis: J Freshfield (1840-57); C Freshfield (1840-77); H Freshfield (1857-77); W D Freshfield (1869-1903); E Freshfield (1869-1918); E H Freshfield (1892-1921); Sir W H Leese (1916-1937?). Following the death of Sir William Leese, no successors were formally appointed as the Bank’s ‘Attorney and Solicitor’. The Bank maintained a close connection with the firm of Freshfields after the Second World War, but worked increasingly with an ever-widening range of law firms and barristers, as and when necessary. Since 1992 the Bank has had its own in-house legal department and much of the Bank’s legal work has been handled in-house. During the last 20 years or so the Bank has worked with a vast number of different law firms and external counsel in the UK and overseas in relation to individual transactions, projects or matters. If you are interested in learning more
about the Bank's early association with Freshfields, I would strongly recommend: 'A history of Freshfields' by Judy Sliin, 1984, ASIN B000FCSA50.

Yours sincerely

Adam Munro
Public Information and Enquiries Group