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Officers, Entrepreneurs, Career Migrants, and Diplomats

Military Entrepreneurs in the Early Modern World

Edited by Philippe Rogger and André Holenstein

BRILL

Officers, Entrepreneurs, Career Migrants, and Diplomats

History of Warfare

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The present volume is a contribution to understanding early modern warfare in terms of privatisation and commercialisation: topics which have attracted the interest of a number of international researchers in recent years. It is the product of the research project on "Military Entrepreneurship & Entanglement: Structures, Interests and Fields of Action in the Transnational Relations of the *Corpus Helveticum* in the Early Modern Period". The project, which was funded by the Swiss National Science Foundation (SNSF), focuses on Swiss military entrepreneurs who recruited, paid, and equipped mercenaries for foreign powers and commanded them in battle. However, the mercenary business is only one aspect of the business of war in the early modern period. In order to grasp the multifaceted business practices of early modern military entrepreneurs and to define the figure of the military entrepreneur more precisely, an international conference was planned in Bern for the summer of 2020. It would have brought together current research debates on the actors and forms of military entrepreneurship, as well as the transnational fields of action involved in it. David Parrott, the leading expert on the topic, was invited to give the keynote speech. The conference was meant to offer both established researchers and young scholars a platform for getting to know one another and networking. Last but not least, we hoped to intensify cooperation with the ERC-project on "The European Fiscal-Military System 1530–1870" under the direction of Peter H. Wilson (Oxford), with which a fruitful exchange had developed in recent years, by meeting in person at the conference. But, unfortunately, due to the COVID-19 pandemic, we had to cancel the conference. We decided – for organisational reasons – not to postpone the meeting to a later date. Instead, we started working on the present volume, which had been planned from the beginning. We appreciate very much that almost all our colleagues who would have spoken at the conference agreed to contribute. Fortunately, Regula Schmid, head of the SNSF project on "Martial Cultures in Medieval Towns" at the University of Bern, also agreed to write her planned conference commentary based on the contributions to the volume. Several of the essays benefited from valuable linguistic and substantive clarifications thanks to her expert comments and suggestions. With Michael Depreter, we were also able to win another contributor for the book. Our authors deserve our deepest gratitude.

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Bern, February 2024
Philippe Rogger and André Holenstein

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CHAPTER 7

Merchant of Death: Maximilien Titon (1632–1711) and the Supply of Arms in Louis XIV's France

Guy Rowlands

1 The Early Modern 'Contractor State' and the Defence Industrial Base

The emergence of the 'new military history', with its focus on the interrelationship between war and society, has spawned a number of different lines of enquiry into the early modern period during the last half century. At first the focus was on the way armies shaped society and societies shaped armies, with the recruitment of troops and civil-military relations as major areas of attention. The role of the contractor on land was investigated primarily for uncovering their methods in raising, deploying, and sustaining bodies of soldiers, especially in the 16th and first half of the 17th centuries. In the English-speaking world the deep structural organisation of early modern armies and navies, and their places in state and society, came under intense scrutiny from the 1970s, with an especial attempt to understand the relationship between government, high politics, and military administration. It is perhaps surprising, therefore, that when military logistics began to attract more attention from the late 1960s, coincidentally with a boost to economic history more generally, far-reaching enquiries were rarely extended into the supply contractors who were essential for fuelling the war machines.[1] It is all the more surprising when one considers the prevalence of concern about 'merchants of death' – private arms suppliers – in the inter-war period. And even more puzzling when one recalls mounting anxieties in the 1950s and 1960s that elements within a 'military-industrial complex' – comprised of a nexus of senior

1 A work which unusually did try to integrate logistics with politics and army organisation was the pioneering study by Geoffrey Parker, though the contractors themselves got little attention compared to the logistical geography of the Spanish Road: Geoffrey Parker, *The Army of Flanders and the Spanish Road, 1567–1659: The Logistics of Spanish Victory and Defeat in the Low Countries' Wars* (Cambridge, 1972). An overview of the state of research into state, society, and war by the early 1990s, primarily based on synthesising other scholars' original research, was provided by Frank Tallett: *War and Society in Early Modern Europe, 1495–1715* (London, 1992).

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military personnel, big business, and the legislative and executive branches of government – might exert, in the words of Dwight Eisenhower, "unwarranted influence" over government not only in the field of economics and finance but strategy and international policy too.[2]

It was not until the final decade of the 20th century, in the aftermath of a rejuvenation of market economics, that historians of early modern warfare on land began to devote far more effort to uncovering the role and operations of entrepreneurs.[3] This 'contractual turn' came amidst increasing public awareness of the importance of contractors in contemporary warfare, and with a growing appreciation of the way sovereigns in the 17th century relied heavily on the cooperative mobilisation of their subjects and their resources to develop standing armed forces capable of considerable expansion during wartime. Developments in the history of war were also coming under the influence of works on state fiscality, even though much financial history relates little to the history of war. It was a significant moment when in 1988 John Brewer crystallised the symbiotic, if often dysfunctional relationship between war and money in the memorable phrase 'the fiscal-military state', generating a lively conversation among early modern historians that shows no signs of drying up.[4] Over the last quarter-century logistical contractors – whether bankers, military paymasters, food suppliers, or shipbuilders, to name but a few genres – have finally been placed under a much brighter spotlight. Scholars have turned their attention to the spending and channelling of money, and the supply of material resources, up to the tip of the military and naval spears.[5]

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2 Helmuth C. Engelbrecht, Frank C. Hanighen, *Merchants of Death: A Study of the International Armament Industry* (New York, 1934); Dwight D. Eisenhower, "Farewell Address," 1961. Available at https://www.eisenhowerlibrary.gov/sites/default/files/research/online-documents/farewell-address/reading-copy.pdf. Accessed 13 July 2021.

3 An underrated study of relevance to this essay that appeared at the turn of the 21st century was Peter Edwards, *Dealing in Death: The Arms Trade and the British Civil Wars, 1638–52* (Stroud, 2000), which provided immense detail on contractors and logistics. Ian Roy's review of this book brings home just how neglected procurement had been up to this point: see Ian Roy, review of *Dealing in Death: The Arms Trade and the British Civil Wars, 1638–52*, by Peter Edwards, *English Historical Review* 117 (2002), 1341–1342.

4 John Brewer, *The Sinews of Power: War, Money and the English State, 1688–1783* (London, 1988). Since then, notable works on the 'fiscal-military' debate include: *The Fiscal-Military State in Eighteenth-Century Europe: Essays in Honours of P.G.M. Dickson*, ed. Christopher Storrs (Farnham, 2009); *The British Fiscal-Military States, 1660-c.1783*, eds. Aaron Graham, Patrick Walsh (Abingdon, 2016); *The Habsburg Monarchy as a Fiscal-Military State: Contours and Perspectives 1648–1815*, eds. William D. Godsey, Petr Mat'a (Oxford, 2022).

5 The most prominent works expounding the 'contractual turn' in state history include: Rafael Torres Sánchez, *Military Entrepreneurs and the Spanish Contractor State in the Eighteenth Century* (Oxford, 2016); Roger Knight, Martin Wilcox, *Sustaining the Fleet, 1793–1815: War, the*

While much of the attention has been on the 18th century, where records tend to be more complete, it has been possible to build up partial pictures of contractor activity in the service of war-making for the previous two centuries, and no study of the Thirty Years' War can now fail to be built on a grasp of military enterprisers and, increasingly, merchant entrepreneurs.[6] While it is true that the notion of "increasingly centralized and directly controlled systems of procurement, manufacture and resource management has been under attack" from historians,[7] it must be acknowledged that there was, by the 1690s, far greater direction and commissioning by governments of matériel, weaponry, and foodstuffs from civilian contractors for armies and navies than ever before in numerous polities: particularly France, Britain, the Dutch Republic, Venice, Savoy, Russia, Sweden, and the Austrian Habsburg domains. The watershed for efforts to enhance the mobilisation of domestic economic power for war was the 1670s and 1680s, and the demands of the state upon contractors would build to a peak during the great conflicts that swept Europe almost continuously from 1683 to 1714.[8]

In an era when ideas of sovereign powers and their promulgation had become so vital to government, the question then becomes one of authority: how far were the contractors, on whom the central state relied for acquiring and delivering war essentials, really under proper political and financial control? For all the uptick in interest in entrepreneurs in wartime, this is a question that has not been given nearly enough attention. Contemporaries certainly lambasted contractors, and one should of course not lazily buy into "crude contemporary caricatures" of greedy, self-interested contractors.[9] Equally, though, states' logistical dependence on private enterprise for the waging of war in the period ca. 1660–1850 posed huge problems of control and engendered a classic set of 'principal-agent' problems. With the massive logistical demands of his war

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British Navy and the Contractor State (Woodbridge, 2010); *The Contractor State and Its Implications, 1659–1815*, eds. Richard Harding, Sergio Solbes (Las Palmas, 2012).

6 David Parrott, *The Business of War: Military Enterprise and Military Revolution in Early Modern Europe* (Cambridge, 2012).

7 David Parrott, review of *The Contractor State and Its Implications, 1659–1815*, ed. by Richard Harding, Sergio Solbes, *Journal of Economic History* 75 (2015), 279–281.

8 For an indication of just how enormous the logistical support of armies could become in the 1700s, the dissertation of Jean-Éric Iung is illuminating: Jean-Éric Iung, *Service des vivres et munitionnaires de l'Ancien Régime: La fourniture du pain de munition aux troupes de Flandre et d'Allemagne de 1701 à 1710* (dissertation for the *diplôme d'archiviste-paléographe*, École Nationale des Chartes, 1983).

9 Huw Bowen's warning is well taken, but, perhaps because he is a historian of the British fiscal-military system, he seems to underestimate the scope for graft in the service of many states: Huw V. Bowen, "The Contractor State, c.1650–1815," *International Journal of Maritime History* 25 (2013), 239–274, p. 241.

efforts, and the unprecedented reliance on contractors to actualise them, Louis XIV's state seems to have been unusually susceptible in this regard.[10] With still low levels of officialdom, haphazard, unsystematic and unreliable statistics, and major weaknesses in communications, there was often a colossal imbalance in knowledge between the state and its contractors. The size of France, with its many particularist divisions in both a geographical and sectoral sense, militated against anything more than small, incremental steps in expanding government knowledge of the myriad activities of subjects, while commercial markets, including commercial agriculture, were underdeveloped, nubilous for royal officials and only clumsily integrated in comparison with the United Provinces or England.

The government therefore needed individuals or consortia of mobilisers – brokers of services and resource-mobilisation – who themselves came to dominate their sectors. This produced a form of 'information asymmetry' that was not only hard to overcome but was built on secrecy deemed essential for maintaining trust and confidence, and which opened the door to significant exploitation of state needs. Any system in which contractors are used to support state activity is open to 'rent-seeking', a situation in which contractors and agents manipulate and alter the frameworks and terms within which they are working, either to secure greater advantages for themselves or to protect themselves from damage. Furthermore, when the state becomes dependent on private interests for its operations, and especially when a condition of military or logistical 'overstretch' has been reached, governments can find themselves forced into providing additional support to essential contractors, who might exaggerate the risks they were running. This creates a situation of 'moral hazard', in which contractors are incentivised to underbid for contracts in the knowledge that arrangements can and usually will be unpicked: the state might bail them out, or contractors would try to obtain additional support from the state while backsliding from assuming the full risk of activities that they were technically obliged to bear.

In France in the 1690s and 1700s, there is abundant evidence that military paymasters, bankers, the big contractors supplying bread to the armies and navy, and a variety of other suppliers managed to profit, sometimes enormously, from the services and matériel they supplied to the state during the Nine Years'

10 Pepijn Brandon has shown in the Dutch case that much of the political system was, in effect, a military-industrial complex, but one in which corrupt and corrosive practices were restrained by a set of controls and systematic practices that mediated between vested interests and the common good: Pepijn Brandon, *War, Capital, and the Dutch State (1588–1795)* (Leiden, 2015), pp. 43, 48, 52, and 154.

War (1688–97) and the War of the Spanish Succession (1701–14).[11] With expertise in mobilising financial backing, associates, and sub-contractors in order to deliver the king's needs, they were an essential part of French war efforts that are predominantly discussed in terms of royal control, ministerial direction, strategic considerations and operations on the ground, and tactics used in battles and sieges. These contractors were certainly carrying out their business in hazardous circumstances, with risks heightened hugely by the monetary manipulations Louis XIV authorised, notably in 1689, 1693, 1701, 1704, and 1709, but in other years too. The ongoing diminutions and punctuated augmentations in the value of gold and silver coins in relation to the unit of account, the livre, were compounded by the over-issuing of rather illiquid Mint bills, first to substitute for coins while they were being redone in the mints, then to inflate the money supply to support the efforts of bankers and military paymasters. In a circular way, all this ensured credit became more expensive while supply and banking contracts required greater guarantees, owing to uncertainty about the quality of reimbursements. Periodically major bail-outs of overextended contractors proved unavoidable.[12] With an unreliable state, which was sustaining (or failing to sustain) military and naval operations at the limits of logistical possibilities, and which was demanding far more from its contractors and agents than in the 1660s–80s, it is no wonder its servants built 'insurance premia' into their services and prices. So much can be justified.

All the same, the evidence for excessive manipulation by some of the bankers and some of the financiers, whether in the military paymaster treasury of

11 On the state revenue-raising financiers and military paymasters, see Guy Rowlands, *The Financial Decline of a Great Power: War, Influence, and Money in Louis XIV's France* (Oxford, 2012). On the international bankers so crucial for remitting funds to armies abroad, see Guy Rowlands, *Dangerous and Dishonest Men: The International Bankers of Louis XIV's France* (Basingstoke, 2014). On the *munitionnaires des vivres*, see Iung, *Service*.

12 See Rowlands, *Financial Decline*, pp. 90–107 ("Manipulating the Coinage"), 108–128 ("Paper Money and Absolute Monarchy"); Joël Félix, "'The Most Difficult Financial Matter That Has Ever Presented Itself': Paper Money and the Financing of Warfare under Louis XIV" *Financial History Review* 25 (2018), 43–70. Félix somewhat underplays the disastrous effect mint bills and coinage manipulation had on containing logistical costs and managing the war effort. We profoundly disagree not only on Chamillart's capabilities but also on whether the mint bills – at least in the way they were abused – were a worthwhile effort to support the projection of French power when other means such as additional direct and transaction taxes, which eventually had to be introduced, might have restrained monetary manipulation had they been brought in nearer the start of the war. It is worth bearing in mind no subsequent ancien régime war saw French governments resort to these infernal monetary methods.

the *Extraordinaire des Guerres* or in the *vivres*, has survived and is glaring.[13] The greatest manipulator of them all, a man whose financial genius was complemented by his aggressive tactics and ability to deflect attack from rivals and suspicious officials, was the great banker, Samuel Bernard (1651–1739). He combined remitting operations for the king on an unprecedented scale in European history with fruitful investments in the slave trade in the Spanish and French empires, commodities trading, illegal coin trading and false coining, contracts for collecting money from venal office sales, and emergency tax contracts.[14]

Thus far, however, ideas about the problems associated with managing contractors, and the advantages and disadvantages of employing them, have not been extended to what is nowadays called the 'defence industrial base'. In the context of Louis XIV's 'personal rule', from 1661 to 1715, this base included highly decentralised activity such as refining flints for flintlock muskets (albeit on a massive scale of millions per annum), or uniform production, which might be undertaken by merchants and tailors who also catered for civilian needs. Under a small number of select contractors, with spheres of activity in different areas of the kingdom, were such matters as cannonball manufacture, primarily in wartime, and the casting of cannon, mortars, and ships' anchors, undertaken for the most part in foundries within royal depots.[15] There was also one colossal monopoly within the defence industrial base, one whose contracted output might fluctuate between wartime and peacetime: the supply of gunpowder and its component saltpetre. This monopoly emerged in the mid-1660s as part of a major drive to create autarky in powder production after France, while maintaining a draining war effort for a quarter of a century after 1635, had found itself dependent on huge quantities of imports, not only of the components of gunpowder but of refined gunpowder itself.[16]

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13 For a partial exploration of the corrosive manipulation by those involved with the *vivres* and the *Extraordinaire des Guerres*, including several men worryingly close to the centre of power, see Rowlands, *Financial Decline*, pp. 199–227.

14 On Bernard, see Rowlands, *Dangerous*, pp. 41–44, 103–114 on his methods, and 119–165 on the rise, fall, and recovery of his labours on behalf of Louis XIV and himself.

15 On naval industrial activity, see the magnificent life's work of Jean Peter, *Les artilleurs de la marine sous Louis XIV* (Paris, 1995); idem, *Maîtres de forges et maîtres fondeurs de la marine sous Louis XIV: Samuel Daliès de la Tour et les frères René et Pierre Landouillette de Logivière* (Paris, 1996); idem, *L'artillerie et les fonderies de la marine sous Louis XIV* (Paris, 1995); idem, *Les manufactures de la marine sous Louis XIV: La naissance d'une industrie de l'armement* (Paris, 1997). See also, Daniel Dessert, *La Royale: Vaisseaux et marins du Roi-Soleil* (Paris, 1996), pp. 62–74, 159–174.

16 Each of these areas, and more, will receive attention in my forthcoming book on the birth of France's arms industries under Louis XIV. In the meantime, see the grand synthesis on mobilisation of resources by Olivier Chaline, *Les armées du Roi: Le grand chantier*

The focus of the rest of this essay, however, will be on the supply of handheld firearms, in particular muskets for the king's land forces. In this field, supply dominance, based on the holding of an office and a set of privileges, was gifted by the state to a single contractor, but in order to produce and distribute the weaponry he relied heavily on several associates, who in turn commissioned the work – often in an abusive manner – from numerous sub-contracting artisans and transport providers. This was not, however, a monopoly of provision but it was hegemonic leadership of one of the three or four most crucial sectors of the burgeoning French defence industrial base. With such preponderance came indispensability in wartime, with all the dangers of rent-seeking and cost escalation this could bring. Given the nature of the products, with the state seeking to control the circulation and sale of arms, there was only one serious large-scale customer for the guns, inducing what economists call monopsony, or perhaps a lop-sided oligopsony in which Louis XIV was the primary customer but allies such as Spain and Bavaria might be supplied as well. When a supplier had few other outlets for sales to which they could turn (unlike the gunpowder contractors, who could supply to the general public for hunting), there was even more likelihood that, in the event of the state putting the contractor under intense pressure, he would cut corners, demand additional support and protect his own interests, at the expense of the king above and his sub-contractors below.

2 The Rise of Maximilien Titon, Arms Supplier to the King

Published in 1991, a doctoral thesis by Colonel François Bonnefoy on the rise of handheld firearm production in France from the start of Louis XIV's 'personal rule' to the Revolution devoted considerable space to the system evolved by Maximilien Titon (1632–1711) under the protection of the Marquis de Louvois and his son the Marquis de Barbezieux, successive Secretaries of State for War from the early 1660s to 1701. While Bonnefoy's work was magisterial in many respects and ground-breaking in the thoroughness of its treatment of arms production in the early modern period, it was very much a product of

XVIIe–XVIIIe siècle (Paris, 2016), pp. 193–272. Also the estimable work on the powder contractors of Frédéric Naulet, *La ferme des poudres et salpêtres: Création et approvisionnement en poudre en France (1664–1765)*, 2002. Available at https://www.institut-strategie.fr/la-ferme-des-poudres-et-salpetres-creation-et-approvisionnement-en-poudre-en-france-1664-1765/. Accessed 20 May 2024. On French dependence on imports of powder and on a major contractor for saltpetre in the 1630s, see David Parrott, *Richelieu's Army: War, Government and Society in France, 1624–1642* (Cambridge, 2001), p. 389.

its time, somewhat uncritically buying into the traditional statist historiography of Louis XIV's reign that charted the expansion of the state's activities under the control of the great ministers. Furthermore, perhaps owing to the enormous size of his *oeuvre*, he did not step back enough from the detail to consider carefully the issues of control and manipulation, nor the limited grip of the French state over its agents.[17] It is true that Titon managed to augment French armaments production prodigiously, and in the Nine Years' War the king's armies did not want for matchlock muskets; but the quality of the weaponry left a lot to be desired. Moreover, the transition to flintlocks, slow at first but then after 1702 requiring a re-equipping of up to a quarter-of-a-million men, was a huge ask for the domestic arms sector, especially in the context of deteriorating state revenues and an escalation in costs for all aspects of the war effort. Titon's operations, especially from the 1690s, were often turbulent, with hiatuses of production and financial resourcing. Yet over the course of 46 years of gun-supplying his accumulation of wealth was staggering. By no means was all of it overtly sanctioned. Much of it was based on opaque pricing and behaviour, and at times Titon neglected payments while continuing to shore up his personal finances. His grandson and principal heir, Titon de Villegenon, was little different.

Scion of a family of embroiderers on both sides, which is somewhat appropriate for his attitude to pricing and expenses, Titon's forebears also held lowly court office: his father had also been principal harbinger of Queen Marie de' Medici while his maternal grandfather had also been a *valet de chambre du Roi*. In his own youth Maximilien plied his trade as an *armurier* in Paris, during which time he became increasingly aware of how problematic and weak were arms manufacture and sale in France.[18] This prompted him in 1664, around the time the gunpowder monopoly was created, to propose the establishment of manufactories and magazines "which would render the King master of arms as of powders and mints".[19] At a time when notions of power were crystallised in itemising specific 'marques' of sovereignty, such an appeal to impose royal

17 Bonnefoy was too ready to assume that Titon had the same interests as the king in the production of guns for the armies: François Bonnefoy, *Les armes de guerre portatives en France: Du début du règne de Louis XIV à la veille de la Révolution (1665–1789): De l'indépendance à la primauté*, 1–2 (Paris, 1991), p. 663.

18 Report of "Séance du Conseil d'Administration," *Bulletin de la Société de l'histoire de Paris et de l'Ile-de-France* 6 (1879), p. 36; Georges Hartmann, "Ancienne Maison rue du Temple: Le Magasin d'Armes à la Bastille: La Famille Titon," *La Cité: Bulletin de la Société historique et archéologique du IVe arrondissement* 7:4 (1908), 279–310, p. 284.

19 Service Historique de la Défense [SHD], Archives de l'Artillerie [AA], 4w467, [Mémoire] *A Son Altesse Serenissime Monseigneur le Duc*, [1723–25].

sovereignty over armaments fell on fertile ground. After some hesitant starts, in 1665–66 Louis XIV set up a series of interconnected magazines for small arms. The *Magasin Royal des Armes* in the *Petit Arsenal*, close to the Bastille, rapidly became “the depot, or even one might say the shop of the merchant with whom the King has contracted”, and that merchant, with the title of *Directeur général des Armes et Magasin Royal* from 1666, was Titon.[20] Other depots, such as Lyon, were to be mere collection points, but as the army expanded in size – and after successive wars then returned to a larger peacetime level than before – the original ‘hub and spoke’ idea, with the Paris *Magasin* acting as chief gathering and distribution centre, gave way to a system in which it became the personal headquarters of Titon and one important depot among several, notably Lyon and Charleville.[21] Though all kinds of pistols, carbines, and mousquetons were made, the primary focus of Titon’s operations would be muskets, primarily matchlocks until the 1690s when flintlock production began to achieve greater prominence. From 1702 flintlocks came to dwarf all other firearms production. The weapons were distributed to the infantry through arrangements with regimental officers, and were paid for through a variety of procedures: at moments of formal recruitment drives, the king would pay, but otherwise re-equipping would be at the expense of the regimental chest.[22] One might imagine this would be accompanied by a major effort at standardisation of firearms, but this only went so far: uniformity of barrel length and calibre became reasonably reliable, yet this did not extend in a tightly- and precisely-defined way to lock-plates, barrel-wall thickness, and firing mechanisms. A memorandum of the mid-1720s, almost certainly by Titon’s heirs, grossly exaggerated when it spoke of Maximilien devoting himself to standardising weapons for each arm of service.[23] In reality, it was not worth the effort to try to overcome resistance from the artisans on whom Titon relied. Not least, this was because what principally concerned Titon was less quality and more profit and personal advancement.

20 SHD Guerre [GR] $A^1$3779, no. 67, *Memoire sur les fonctions de Grand M^e^ de l’Artillerie* by duc du Maine, with quote from comments by Artillery *Contrôleur général* Camus de Beaulieu, 30 January 1701; SHD GR $A^1$2504(III), fol. 317v, Pleneuf to Villegenon, 23 August 1711; SHD AA 5W18: *Mémoire*, 1754; Archives Nationales de France [AN] $G^7$1782, no. 113, *mémoire* by Titon, 20 September 1707.

21 SHD GR $A^1$2504(III), fol. 191r, Chamillart to Tressemanes, 7 January 1708.

22 SHD GR $A^1$2504(III), fol. 343v, Voysin to Duplessis, 14 December 1712; SHD GR $A^1$1416, fols. 190v-191r, King to Vendôme, 24 August 1697. Late in the Nine Years’ War, officers were buying a mixture of matchlocks and flintlocks from Titon, with choice left to them by the war minister, SHD GR $A^1$1377, Barbezieux to Genlis, 6 November 1696.

23 Jean-Louis Viau, “Le fusil mle 1717,” *Tradition Magazine: Armes, uniformes, figurines* 13 (1988), p. 33; Bonnefoy, *Les armes*, pp. 126–127; Naulet, *La ferme*.

Policing the production and distribution quality of the arms was only worth so much time, effort, and money.

To produce these firearms, and to carry through his promise to endow the kingdom with what would now be considered a small-arms industry, Titon had to achieve dominance as the king's broker and commissioner for these weapons. The first place he looked to was the Principality of Arches, an enclave under the sovereignty of the Dukes of Mantua, located just within France's northern border. The core of this statelet was the recently-developed arms-making city of Charleville, then housing only some 4,000 inhabitants.[24] In the second half of 1667 the war ministry asked the Charleville municipal authorities to ensure not only that all arms production in the principality be reserved for the king, but that henceforth all workers should labour preferentially for Titon as the king's arms dealer, under the watchful eye of the *Cour Souverain* of the duchy (for form's sake, of course). This was sold to them as being excellent for the prosperity of the town, but it in fact also entailed a degree of proletarianization of the artisans at the same time, even if this should not be exaggerated. This apparent exclusivity of production was achieved through a series of private contracts, rather than a legislated monopsony, but central to the achievement of a ramping up of production was the creation of *sociétés* linking a merchant to a *maître armurier*. At the head of this pyramid of binding contracts in Charleville stood not Titon but his agents, the Fournier family, who belonged to the local oligarchy. As brokers for the king's own super-broker Titon, Toussaint Fournier and his son Victor set up a *Magasin Royal* in Charleville, and arranged with all kinds of specialists to take their products while supplying them with the necessary raw materials. Victor Fournier shored up his position by marrying Titon's niece, and in at least one document Titon referred to him as his *commis a la Direction desdites fabriques* of the Champagne region, in which Charleville was set. Various mills and forges just outside Charleville/Arches and in nearby areas of Champagne were also owned by the Titon-Fournier partnership, or remained private but received orders from them. By 1677 most Charleville artisans had been tied to them in contracts that could last from anything upwards of a year. All this bound together entrepreneurs and artisans, including carpenters and other ancillary skilled workers, gearing everything around the depot in Charleville. Titon would pass orders to Fournier, who would then contract with

24 Carole Rathier, François-Joseph Ruggiu, "La population de Charleville de la fin du XVIIe siècle à la fin du XIXe siècle: Une enquête d'histoire démographique," *Histoire & mesure* 28:2 (2013), 3–16, p. 11.

the workers, receive the finished materials and upon delivery pay for them with money sent by Titon.[25]

In 1688, in line with developments in royal protection for manufacturing, and precisely to increase the attractiveness for men to work there, the entire set-up inside Charleville was endowed with the status of a *Manufacture Royale*, giving its resident artisans a string of attractive privileges and exemptions. But, while an irresistible move, this brought some inconvenience for Titon, as it meant the more men relocated their activities into Charleville, the less scope he had for cutting corners in terms and conditions, and the less he could avoid dealing through the municipal structures. Louvois, possibly anticipating a big increase in production for war, needed to corral as many workers as possible into the city under contract and he was well aware that artisans in the nearby Champagne and Arches villages had become steadily less amenable to Titon's demands. That this move did not altogether suit Titon seems clear by his near-simultaneous establishment, in association with Fournier, of a new production centre at Nouzon, a sealed village around a church and château, at one end of a large pond. Here the writ of Charleville magistrates – who policed the activity inside the city – did not run, and Titon/Fournier could operate their own terms.[26]

The situation at the other great firearms centre 600 kilometers to the south, Saint-Étienne-en-Forez, was a bit more complicated still. Louvois, rather than Titon, seems to have been the first to take notice of the little arms workshops there, known as *molieres* (grindstones), and by the mid-1660s, if not before, there were already some 600 *armuriers* in a population of nearly thirty thousand. This was propitious for the king's service, but it turned out to be far less easy for Titon to control. Titon's point-man in Saint-Etienne, usually referred to as his *commissionaire*, was Pierre Carrier, an *échevin* of the city, who had been given the role of overseeing operations there not by Titon but by Louvois. Like Fournier in Charleville, he signed exclusive contracts with various artisans, including musket lock-makers, carpenters, and forgemasters, though he and other Titon *commissionaires*, like the Girard family, did not establish nearly as much of a monopsony here compared to Charleville. In particular,

25 Henri Manceau, *La Manufacture d'armes de Charleville* (Charleville, 1962), pp. 14–18; François Bonnefoy, "Maximilien Titon directeur général des magasins d'armes de Louis XIV, et le développement des armes portatives en France," *Histoire, économie et société* 5:3 (1986), 353–380, pp. 354, 365; quotation from AN $G^7$1643, no. 26, petition [by Titon] to Desmaretz, 19 September 1709.

26 Manceau, *Manufacture*, p. 18; SHD GR $A^1$1524, no. 81, engraving of Nouzon; *Correspondance des contrôleurs généraux des finances*, 1, ed. Arthur-Michel de Boislisle (Paris, 1874) [CCG], p. 54, Harouys to Desmaretz, 16 September 1708.

there seems to have been a lot more manufacturing of weapons for the cavalry, much of which was never channelled through Titon's network, and which was instead mobilised by other merchants upon orders placed by regimental officers, or those officers approached individual gun-assemblers directly. As these people had no system of inspection louring over them for cavalry orders, they tended to devote as much time as possible to churning these products out, and less to Titon's infantry-orientated orders. In the Nine Years' War merchants were forbidden to commission arms, and workers forbidden to sell to anyone but Titon; but it proved near-impossible to enforce these strictures, and they seem to have been dropped around the end of this conflict. Saint-Étienne was unusual for its size in not being walled, and so goods could quite easily be smuggled out; and there was a lot of work undertaken in the countryside, for town and country economic activity was interlocking. Moreover, there was a weak guild structure and no system of *maîtrise* that would oblige artisans to produce a masterpiece and demonstrate high levels of competence. This relative lack of formal economic organisation was reflected in the fact that there was no standard pricing of work and materials, except for the government laying down how much per musket would be paid to the *commissionaires*. It is not surprising workers opted to produce for those to whom they could sell for higher prices.[27] Once it became clear, by late 1702, that Titon was expected to re-equip the infantry with flintlocks on a massive scale, he – and some war ministry officials – tried to instate a proper monopsony, with stronger policing than before: Titon would sub-contract orders to various merchants, who would then get the same profit per weapon as his *commissionaires*. The contract Titon had signed earlier that year did give him the right to compel Saint-Étienne gunsmiths of whatever kind to work for him, or rather (formally) the *Magasin Royal*, but this rule seems to have remained honoured as much in the breach as in the observance. Merchants continued to interlope with orders, artisans continued with under-the-counter commissions, no monopsony was introduced for cavalry and dragoon firearms, and smuggling under the noses of Titon's agents remained endemic.[28]

So Titon was the dominant player in supplying muskets to the army, and commissioned some other weapons on an ad hoc basis for various regiments,

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27 SHD AA 4W467, *Mémoire sur la Manufacture de St Etienne, Vers 1760* and *Manufacture d'armes de St Etienne, Mémoire, Vers 1760*; Bonnefoy, "Maximilien Titon," pp. 361, 363–364; idem, *Les armes*, p. 57; SHD GR A[1]1613, no. 84, Dubois to Chamillart, 25 November 1702; SHD GR A[1]1613, no. 98, Dubois to Chamillart, 12 December 1702..

28 SHD GR A[1]1613, no. 21, Titon to Chamillart, 5 May 1702; SHD GR A[1]2504(III), fol. 262v, Voysin to Dubois, 8 May 1710.

but by no means was his system sealed and under his total control. All the same, in the 1670s–90s he did galvanise gunsmith centres and accelerate production considerably, a remarkable achievement considering the low base at which France started in the mid-1660s. In the words of a later memorandum for Louis XV's chief minister, the duc de Bourbon, by 1688 France had "the most considerable establishments in Europe" for firearm production, and in the War of the Spanish Succession the kingdom could produce over 100,000 portable gunpowder weapons (not just through Titon) for the state and France's allies. In June 1702 Titon claimed Saint-Étienne and Charleville together could manufacture some 60,000 flintlocks per annum. Eighteen months later Titon noted he had over 2,000 workers to whom he had to pay weekly wages, and by July 1709 he claimed this had become 10,000![29] In money terms, Titon was getting some 600,000 livres per annum in around 1695,[30] but with the price of muskets increasing early in the next decade (perhaps in part because Vauban and others recommended more be paid in order to get better quality work and material) this doubled. The set prices of the muskets fluctuated, but it is worth noting that matchlocks cost around 7 livres in the late 17th century, while flintlocks rose from around 8 livres in the 1680s to 13 livres from 1702, in part reflecting coinage devaluations. In 1706 Titon oversaw the delivery of weapons worth 1,555,560 livres, and in the following three years handled funds for his operations still worth over 1.25 million. The money came via payment orders from the *Trésor Royal* or the military paymasters. This was a staggering industrial operation, albeit one that was scattered between different areas of the kingdom, and grounded in artisanal workshops and multi-layered contractual organisation. Titon was the lynchpin for masterminding the commissioning and delivering of around two-thirds of the weapons produced in the kingdom. In the end the scale of industrial activity was massive for its time, but, as the war minister Michel Chamillart (1652–1721) admitted, in the War of the Spanish Succession it was unfortunately still not big enough for the needs of the state, and it is far from clear that all orders were delivered.[31]

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29 SHD AA 4w467: [Mémoire] 'A Son Altesse Serenissime Monseigneur le Duc', [1723–25] (quotation); SHD GR $A^1$1613, no. 42, Titon to Chamillart, 17 June 1702; AN $G^7$1775, no. 296, Titon to Chamillart, 17 November 1703; AN $G^7$1785, no. 143, *placet* from Titon, July 1709.

30 AN $G^7$1789, no. 164, memorandum on artillery, [ca. 1695–96]. This document implies Titon was delivering some 60,000–70,000 muskets, both matchlock and flintlock, while there were apparently a lot of (siege) tools bound up in his contracts too.

31 AN $G^7$1779, no. 119, *état*, April 1707; AN $G^7$1785, no. 141, *Etat*, 18 June 1709; SHD GR $A^1$2504(III), fol. 203v: Chamillart to Rochebonne, 10 July 1708. To put this in perspective, this was about one per cent of total land military spending at this time, but a crucial one per cent nonetheless.

3 Cutting Corners and Profiteering at the Expense of the King and Workers

It was equally unfortunate that the quality of the weapons left a lot to be desired. Around 1700 Vauban fulminated that flintlocks then in service were deficient because too little was being paid for them and not enough application was going into them: "one wants them at too cheap a price." Seven years earlier, referring to matchlocks, the comte de Tessé, second-in-command of the army of Italy, raged to his superior, "I would like Titon to be hanged, and the barrel founders, because everything bursts."[32] The fault lay partly with poorly-trained troops, who rammed too much powder down barrels with necessarily thin walls, or maintained barrel cleanliness with corrosive materials. But this should not be used to overlook Titon's corner-cutting and profiteering, as Bonnefoy did in his overviews and general conclusions. An artillery field commander in 1702 noted of the troops serving the British and Dutch governments in the opposing Grand Alliance, "their arms are assuredly better, and the fusil [flintlock] barrels stronger." The Grand Master of this arm, the king's illegitimate son the duc du Maine, himself noted of captured Allied small arms: "these arms are normally a great deal better than ours." The price France paid was in maimed soldiers as barrels burst in their faces.[33]

Some degree of corner-cutting and self-protection was necessary for any contractors working for Louis XIV in the last two wars of his reign, as argued above. At times Titon did suffer from a liquidity crisis, and in 1709 he was just as much a victim as anyone of the collapse of Samuel Bernard that brought the great crash in Lyon. In June 1709 his property was sequestered on court application by his creditors, when he found himself owing some 3 million livres: this was because the king owed him some 2.39 million, while various local authorities and regiments, who ordered weapons directly from him, owed another 730,000 livres. *Contrôleur général des finances* Desmaretz had to order the Paris *consuls* to accord Titon a suspension of proceedings against him.[34]

32 Vauban, "Moyens d'améliorer nos troupes …," [mainly reflecting ca. 1700 situation], in *Les Oisivetés de Monsieur de Vauban*, ed. Michèle Virol (Seyssel, 2007), p. 1144; SHD GR A^{1}1223, fol. 27v, Tessé to Catinat, 5 August 1693.

33 SHD AA 3W117: *Memoire du Sr Pelletier Lieutenant d'Art^{rie}*, 1702; AN M1004/46, Maine to Chamillart, 19 November 1708; AN M1017: *Memoire sur l'irregularité abusive qui se pratique a l'egard du Grand Maistre*, 25 November 1715.

34 AN G^{7}1785, no. 140, Titon to Desmaretz, 27 June 1709; AN G^{7}1785, no. 141, *Etat*, 18 June 1709; AN G^{7}1783, no. 330, Titon to Desmaretz, 18 August 1709.

On the other hand, Titon had already, in his 1702 contract, built in margins for the costs of commissioning, wrapping, storing, and maintaining weapons, as well as interest on any stop-gap credit he might have to offer the king, and a little something for his *peines et soins*. This provided perhaps a 25–30 per cent margin over the cost of the actual raw materials and work on the weapons.[35] None of this stopped Titon from clamouring for additional indemnification as problems of royal cashflow mounted during the coming years. By November 1704 he was demanding Chamillart – as both war minister and *Contrôleur général des finances* – authorise compensation for covering his advances. This came sporadically. In late 1706 he was authorised to support his operations and draw 1.6 million livres by acting as the selling agent (*traitant*) for the sale of offices in the *Eaux et Forêts* (Waterways and Forests) administration, positions that were created deliberately to pay Titon's outstanding costs for the arms he had provided in 1705 and 1706. In March 1709 Chamillart could not compensate Titon for the losses he had made when forced to discount revenue-assignment instruments he had been given, so instead he provided him with fresh, unused fund sources. As a measure of how important Titon's arms deliveries are, it is worth noting that this move damaged the budget for the *Extraordinaire des Guerres* paymasters. Titon then had to sell these new instruments for whatever he could get, which inevitably meant further discounting.[36] Once Chamillart, with his hopeless handling of appropriations, had ceded office to Nicolas Desmaretz (1648–1721) for finance and Daniel Voysin (1655–1717) for the army, these two ministers did attempt to keep Titon's operations going, something Voysin regarded as "extremely essential" for the war effort. By September 1710 he seems to have been the top priority recipient of payments once the armies entered winter quarters and food for the field forces was no longer the top priority. Three months later Voysin even gave him 10,000 livres that had been earmarked for troops' wages. Titon's apparently parlous situation required that he, or rather his workers through him, be prioritised over ordinary soldiers.[37] None of this stopped Titon's heirs claiming later to the duc de Bourbon that he had had no indemnity whatsoever for discounting of instruments he had been forced to sell on, taking all such losses on his own credit. This was stretching

35 Bonnefoy, *Les armes*, p. 468.

36 AN $G^7$1776, no. 430, Titon to Chamillart, 8 November 1704; AN $G^7$1779, no. 76, Titon to [Le Rebours?], 19 December 1706; Jean-Claude Waquet, *Les grands maîtres des eaux et forêts de France de 1689 à la Révolution* (Paris, 1978), pp. 21–22; SHD GR $A^1$2490(iv), no. 651, Chamillart to Titon, 5 March 1709.

37 AN $G^7$1784, no. 36, Voysin to Desmaretz, 29 August 1709 (quotation); SHD GR $A^1$2504(III), fol. 283v, Voysin to Titon, 1 September; SHD GR $A^1$2504(III), fol. 294r, Voysin to Méliand, 27 December 1710.

the truth at best, considering all kinds of additional resources had been flung his way to compensate him.[38]

How much of the regular and additional payments went on legitimate procurement expenses is unknown, but there are enough clues to suggest a certain amount was creamed off beyond the expectation set in the various contractual arrangements between Titon and the war ministry. It did not help that Titon's accounting arrangements were a mess. There had been no proper accounting to the government for his deliveries in the 1690s, and the totality of his orders was not turned into accounting data. In 1705 he denied there were any itemisation documents or written contracts with workers – at least, none that he could produce, given activity was embedded in a series of notarial agreements, subject to professional secrecy, that linked worker to sub-contractor and sub-contractor to Titon. Certainly he had not thus far been compelled to produce anything like these for the treasurers general of the *Extraordinaire des Guerres*. What did exist were orders from the ministers to Titon, and general contractual arrangements between Titon et al. and workers. The actual orders given by Titon's agents to workers, Bonnefoy has suggested, were often oral; and precious few documents were generated itemising payment by Titon to his agents and on to the workers.[39] Such accounts as Titon did submit were not verified for several years after the end of the calendar year in question, and they appear to have been really rather incomplete if not random. After his death, the *premier commis* in the war ministry, Pleneuf, came to realise that – in spite of having ordered from Titon perhaps some 1.5–2 million weapons over the previous 40 years – successive *Secrétaires d'état de la guerre* had accumulated very little by way of documentation about his business in their bureaux.[40]

Accounting and accountability was not helped by poor oversight of production on the ground. There was little by way of a systematic inspection system for musket manufacture under Louis XIV, even though individuals were given the status of *Contrôleur d'armes* in both Charleville and Saint-Étienne. And those who occupied such positions down the decades were not uniformly competent. At Charleville in the War of the Spanish Succession Loche, also

38 SHD GR A[1]3779, no. 67, *Memoire sur les fonctions de Grand M[e] de l'Artillerie* by duc du Maine, 30 January 1701.

39 This degree of obscurity and paucity of record keeping is best compared with the world of the international bankers working for Louis XIV at this time, with opacity in their processes of commissioning and paying other sub-contracting bankers and so on. The accounting records for the senior military paymasters, seriously weak though they were, were transparent in comparison with those of the bankers or Titon.

40 AN G[7]1789, no. 164, memorandum on artillery, [ca. 1695–96]; Bonnefoy, *Les armes*, p. 513; SHD GR A[1]2504(III), fol. 317v, Pleneuf to Villegenon, 23 August 1711.

contrôleur of the local military hospital, was supposed to send fortnightly statements of testing, distribution and shipping out of arms, but he was negligent in his duties, used testing techniques prohibited by the ministry, and eventually had to be fired. Chapuis, his counterpart at the same time in Saint-Étienne, was similarly negligent, and in March 1711 had to be berated for not sending reports for over two years.[41] Some scrutineers were outright corrupt, and there were several instances of collusion between them and the Titon network. At Charleville, Titon and Fournier had tried to corrupt Gaillard by paying him additional monies not authorised by the king, and he seems to have taken kickbacks of 8 deniers per gun barrel while fraudulently certifying the number of muskets made. He ended up in prison at the end of 1691.[42] In 1703 Carrier in Saint-Étienne got rid of a musketlock *contrôleur* who was trying to protect lock-makers against him and the other contractors.[43]

If the gunsmiths themselves were also seeking to cut corners, it is not altogether surprising given the abusive nature of contracts with the Titon network. Fournier extended his oppression from the workers of Charleville to those in Sedan, another arms centre only some 18 kilometers distant, and during 1690 royal *intendant* Michel-Louis de Malézieu (d. 1717) – who watched like a hawk for corruption in his jurisdiction – had to step in to permit them to work freely for others if Fournier had no work for them. From this it is clear Fournier sought to monopolise the time of his contracted workers, and prevent them earning a living when he had no call on them. Malézieu also forced up the pay of workers in Charleville.[44] Titon himself seems to have kept his distance from the ground-level exploitation of their workers, but the terms of business he set were anything but generous. As he and his agents provided the workers with the raw materials, there was the chance for buying cheap and selling dear. Indeed, Bonnefoy estimated Titon might have made up to a 35 per cent profit on these sales in the 1700s, and if one reckons that his expenses per finished musket were more than covered by the 25–30 per cent margin built into the 1702 contract (and earlier ones), this was a route to considerable profiteering.[45] Here is a classic example of information asymmetry at the heart of the principal-agent

41 SHD GR A¹2504(III), fol. 292v, Voysin to Loche, 6 December 1710; SHD GR A¹2504(III), fol. 316v, Voysin to L'Escalopier, 8 August 1711; SHD GR A¹2504(III), fol. 296r, Voysin to Chapuis, 25 March 1711.

42 SHD GR A¹958, no. 284, Malézieu to Louvois, 8 November 1690; Bonnefoy, *Les armes*, p. 80.

43 Patrick Mortal, *Les armuriers de l'État: Du Grand Siècle à la globalisation, 1665–1989* (Villeneuve d'Ascq, 2007). Available at https://books.openedition.org/septentrion/57102?lang=en), paragraph 65. Accessed 16 July 2021.

44 Manceau, *Manufacture*, pp. 20–21.

45 Bonnefoy, *Les armes*, p. 566.

conundrum: the state did not know the real price of raw materials, nor did the workers (except in their own immediate area), but the super-contractor knew where to get the cheapest materials and how to drive the hardest bargains in doing so; he could then achieve large hidden profits even before the manufacturing process for the guns had begun. If – as he did – he could also operate his own forges and keep workers there similarly low-paid, this too could keep down the costs of passing some of the materials to the artisans in Charleville. At Saint-Étienne, where Titon was more in the hands of his associates, he had no direct-supply operations himself, and the artisans had long-standing sourcing networks, the scope for direct profiteering was less, but it was not non-existent, especially in times of pressure. In 1693–94 in Saint-Étienne Titon used rag-and-bone women to buy up gun-barrels at below the fixed rate during the famine and major recession. But this sort of behaviour had consequences: the workers were pushed down to states of starvation, and died in their scores over the 1693–94 winter. The local *intendant* Bérulle, scion of a pious family and morally outraged by these actions, expostulated to the *Contrôleur général* that he needed to install someone in Saint-Étienne who could "prevent the Sr Titon from abusing the misery and need of the workers to get arms at whatever price he wants."[46]

Alas, things were little better in the following war. As things got tight for Titon's cash-flow, he and his cronies used crafty means to reduce their liabilities. The king, short of ready cash, gave Titon oats in 1710 with which to pay his workers in northern France at around 18 livres per 200-pound sack, but somewhere in the process there seems to have been sharp practice, probably involving rates at which it was passed on, that caused some disgruntlement.[47] Three years later war minister Voysin chastised Titon de Villegenon for settling a 25,000-livres debt to Claude de Vien, an *armurier* at Saint-Étienne, using financial assignment bills due for maturity only in 1716![48] Villegenon clearly preferred to rid himself of long-dated financial instruments rather than trade them at a discount to find the cash to pay larger debts to his workers.

Could much be done to stop this sort of behaviour? The short answer in wartime was no, something the experienced military *intendant* Antoine François Méliand (1670–1747) admitted to Voysin in December 1710. When the financial flow to Titon slowed down, he would seemingly take little action to prevent

46 CCG, 1, p. 352, to Pontchartrain, 26 January 1694.

47 SHD GR $A^1$2504(III), fol. 282r, Voysin to Harouys, 5 September 1710; SHD GR $A^1$2504(III), fol. 291v, to Galand, 23 November 1710, clarifying that at least the worst accusations – of a 120 per cent mark-up in passing on foodstuffs – seem not to have been true.

48 SHD GR $A^1$2504(III), fol. 360r, Voysin to Villegenon, 5 August 1713.

his bills of exchange – used to send money to Charleville and Saint-Étienne – from being protested (i.e. being returned after being refused by their nominated payers in the area). He would stop production, or threatened to do so, and by August 1709 work at Saint-Étienne had completely halted, with little prospect of immediate revival.[49] By that year, Titon was quite willing to hang his own agents out to dry to save his own position. In February the contractors at Saint-Étienne – desperate to get some cash locally – had borrowed in Titon's name and drawn bills of exchange on him to be paid in Paris (something I term 'inverse remitting'), but these were then refused by Titon himself, causing his agents enormous trouble with various commercial tribunals, including in nearby Lyon, the city crucial to their activities. Never mind the ordinary workers, Titon's contractors too were on the floor, could buy no raw materials, and in turn could not supply work to starving artisans. In September Louis Carrier informed the *Contrôleur général* that, under threat of bankruptcy, even he had had to flee Saint-Étienne.[50] Worth noting is that in Charleville, where Titon had more of a direct physical stake in work, there seems to have been much less of a deterioration in productive activity and financial solvency.

At best, then, local royal *intendants* could flag up the worst excesses of exploitative behaviour and appeal to the minister to authorise some ameliorations. But they had to contend with the ferocious and manipulative, sometimes mendacious lobbying of Titon himself, a man who fought hard to preserve position and also his order book. His correspondence betrays his nervousness that ministers might turn to other arms centres, including Liège and Namur, and exposes his willingness to ridicule the abilities and trash the reputations of even small-fry contractors not under his umbrella.[51] In 1704, trying to strangle in its cradle the new arms centre of Maubeuge, Titon gleefully pointed out to minister Chamillart its troubles delivering to the prestigious *Gardes Françaises*, but he did not stop at playing the ball. Spitting a sense of entitlement and condescension, he tried to take away the legs of the Maubeuge entrepreneur, Robert Daretz, too:

> It is not the business of such small contractors to dare to undertake such furnishings. They are neither strong enough nor practiced enough ever to

49 Bonnefoy, *Les armes*, pp. 667–668; SHD GR A^{1}1613, no. 36, Titon to Chamillart, 29 May 1702; AN G^{7}1776, no. 245, Titon to Chamillart, 3 December; AN G^{7}1776, no. 252, Titon to Chamillart, 28 December 1704; CCG, 3, ed. Arthur-Michel de Boislisle (Paris, 1897), p. 116, Trudaine to Desmaretz, 27 August 1709.

50 AN G^{7}1011, petition *A M. Le Rebours*, [February 1709]; AN G^{7}1784, no. 17: *placet* from Louis Carrier, [September 1709].

51 SHD GR A^{1}1613, no. 42, Titon to Chamillart, 17 June 1702; SHD GR A^{1}1613, no. 65, Titon to Chamillart, 1 August 1702.

> succeed, but the sole design of these types of little people, and on the bad advice given to them particularly by M. D'Artagnan, ends only in disturbing me in my service under a false pretext.[52]

Of course, as the renowned economist-statesman Anne Robert Jacques Turgot (1727–81) later pointed out, "There is not one merchant who would not wish to be the sole vendor of his wares. There is no trade in which those who practice it do not seek to drive away the competition."[53] All the same, Titon – like Samuel Bernard in the banking world – abused his possession of the ears of ministers to try to quash anyone not under his domination, usually insisting that any derogation from his contractual umbrella would harm the king's service. This did not stop Titon from losing his commanding position in the last three years of his life, but he did remain the monarchy's most favoured arms contractor by a long way. Indeed, in the painful process of sustaining and clearing the crown's liabilities in late spring 1715, *Contrôleur général* Desmaretz listed the Titon family by name as fourth in line for support after (1) the *Caisse Legendre* (a financial consortium of tax receivers by then propping up the state), (2) the payment of the *rentes* on the Paris *Hôtel de ville* (government annuities, the mainstay of long-term debt), and (3) the land armies' paymasters, the *Extraordinaire des Guerres*.[54]

This was favour indeed, and there are strong suspicions that Titon could depend – at least until 1704 – on friends in quite high places to cover his tracks. Germain Michel Camus de Beaulieu (1635–1704), the deeply corrupt *Contrôleur général* of the artillery, seems to have tried to stymie any increase in supervision over firearms contracting early in the War of the Spanish Succession, rebutting the reasoning of his own boss, the duc du Maine as Grand Master, that suggested they might assume jurisdiction over it and subject it to the oversight of knowledgeable artillery officers.[55] Twelve years after Beaulieu's death that is precisely what happened.[56] Others, however, took a much dimmer view of Titon's activities. Titon himself had tried in 1701 to effect a complete venalisation of the *Extraordinaire des Guerres* treasury network, using

52 AN $G^7$1790, no. 17, Titon to Chamillart, 17 February 1704.

53 Anne-Robert-Jacques Turgot, *Oeuvres de Turgot*, ed. Eugène Daire, 1 (Paris, 1844), p. 380, Turgot to Terray, 24 December 1773.

54 CCG, 3, p. 632, [*mémoire* by Desmaretz], 1 May 1715. There were five other classes of people to be paid off. Strikingly, among the suppliers in place four, only three others are so indispensable as to be mentioned by name.

55 SHD GR $A^1$3779, no. 67, *Memoire sur les fonctions de Grand M^e^ de l'Artillerie* by duc du Maine, with comments by Artillery *Contrôleur général* Camus de Beaulieu, 30 January 1701.

56 SHD AA 4w467, [Memo], 12 May 1716.

Mairon, its *commis* in Charleville, as his cat's paw, in order to rake in a large cut of any sales. This was at a time when he did not need to be bailed out at all. But someone else, back in 1697, had tried to disrupt Titon's own system in a similar way: in a memorandum proposing the venalisation of artillery posts, the anonymous writer (certainly a powerful financier) argued it was important that the man in charge of arming the troops was endowed "with an office and a character of distinction, in order that he is not, as he currently is, in the status of a merchant whom one can reasonably suspect of having good and bad wares."[57] It is tempting to dismiss this as a kick-down remark by an insecure social *parvenu* against someone just below him on the status ladder, but Jean-Étienne Berthelot de Pleneuf (1663–1727), chief administrator of the artillery and himself a deeply corrupt financier who knew a rogue when he saw one, openly warned about accepting Titon's estimates of prices because he was so 'suspect' as an interested party. The hardened war minister Voysin, drawing on his experiences dealing with Titon and firearms contractors, expressed weary scepticism about an idea for creating a similar system for bayonet and tool manufacturing, "given the contractor would be more attached to gain on his contract than to make these arms and tools good quality." Finally, no less a figure than the king's personal military adviser, the sieur de Chamlay, in 1709 dispassionately added to criticism of Titon's products, comparing them unfavourably with those of Germany and Liège both on grounds of quality and cost.[58] Those in the know knew very well how sub-optimal the firearms manufacturing system was, even before the travails brought on by the War of the Spanish Succession, and even by the standards of the time. But it was the very dependence on Titon for organising the rearming of the French infantry in that war that made him, for its duration, indispensable as at least the hegemonic firearms contractor.

People could also see for themselves how well Titon had done personally, even as the state and his own workers had slid into a parlous economic condition. The *inventaire après décès* of Maximilien Titon in 1711, examined by Bonnefoy, put his net worth at over 3.24 million livres, not bad for a man whose father had died worth only some 10,000 livres.[59] To put this in perspective, the average ducal fortune at time of marriage during Louis XIV's 'personal rule' and the subsequent Regency was just under 1 million livres, while at time of death

57 AN $G^7$1789, no. 130, *Proposition pour la Creation de plusieurs Charges dans l'Artillerie*, [1697]; SHD GR $A^1$1526, no. 171, Titon to Chamillart, 6 July 1701; SHD GR $A^1$1526, no. 258, [*mémoire* by Mairon], August 1701.

58 SHD GR $A^1$1990(V), no. 1188, Pleneuf to Saint-Hilaire, 28 August 1706; SHD GR $A^1$2504(III), fol. 285r, Voysin to chevalier de Maulevrier, 28 September 1710; SHD GR $A^1$2471, no. 27, *Considerations sur plusieurs choses ...* memorandum by Chamlay, July 1709.

59 Bonnefoy, Les armes, p. 569; idem, "Maximilien Titon," pp. 355, 373.

it was usually less than 2 million. Titon's estate in 1711 was worth no less than about half the apanage of the king's grandson, the duc de Berry![60] To build this up, Titon notionally would have had to have saved up – on average between 1665 and 1711 – roughly 70,000 livres per annum.[61] Some of his wealth certainly came from activities as a *traitant*, involved in other state financial contracts unrelated to arms, and he was also an investor in the *Compagnie de la Mer du Sud* and the *Compagnie de Chine*. But most will have come from his arms dealing to the state.

Even if people were not privy to the family wealth secrets, they could in any case see the physical manifestations of Titon's enrichment, and in this he was not untypical of the top fisco-financiers of the kingdom, merely a more brazen version. For not only did he buy a run-down estate at Ornon near Senlis in 1676 and improve it considerably, the gardens of which are still considered a monument to 18th-century gentility; not only did he buy the estate of Le Plessis-Chamant in 1692 and another at La Selle-sur-le-Bied in 1695 for his daughter and son-in-law (incidentally, the son of the king's *premier médecin* d'Aquin); not only did he buy Villegenon near Sancerre and in 1691 Thaumiers in the Bourbonnais, both for his son Louis-Maximilien.[62] From 1673 he also began the building of the so-called Folie Titon in the Faubourg Saint-Antoine just outside Paris (now in the 11th *arrondissement*). This immense domain took up an area of some three hectares, and its interior panelling was so splendid that some of it is still preserved in the *Musée Jacquemart-André*. From its grounds in 1783 the Mongolfier brothers took off in their balloon achieving heights the ambitious Titon might never even have dreamed of. His children also owned further properties in Paris.[63] This was a property portfolio rivalled only by ministerial families and royal princes. It was not acquired through rather small commissions on organising the making of muskets.

It was little wonder that in August 1711, eight months after Maximilien died, Voysin demanded of his grandson Maximilien-Louis Titon de Villegenon (1681–1758) all the details of arms production, and insisted on seeing proofs

60 Jean-Pierre Labatut, Les ducs et pairs de France au *XVII*e siècle (Paris, 1972), pp. 248, 260, and 267.

61 By contrast, a stonemason of the time might bring in anywhere between 500 and 750 livres a year, and the average French subject perhaps 200 livres.

62 Bonnefoy, "Maximilien Titon," p. 374 (Bonnefoy misread the documents: it is not Du Plessis-Choiseil); [Philippe Hernandez], *Description de la généralité de Paris* (Paris, 1759), p. 166. Ognon and Le Plessis are within 3 kilometres of each other, La Selle 130 kilometres further south near Montargis in the Gâtinais.

63 Hartmann hugely underestimated the size of the Folie Titon grounds: Hartmann, "Ancienne Maison," p. 289. See also Félix de Rochegude, Maurice Dumolin, *Guide pratique à travers le vieux Paris* (Paris, 1923), pp. 66, 309.

of the family's claimed powers and rights, especially any documents from 1666 that upheld their *titre* to run arms magazines. This was nothing short of a major enquiry into the Titon family's business affairs, especially in regard to their control over depots and Saint-Étienne.[64] But it would take the death of Louis XIV, and almost certainly a political deal between the Regent Orléans, who had always suspected the Titon, and his arch-rival the duc du Maine, who wanted to bring the small arms industries under artillery control, to gain a stronger grip on the manufacture of armaments in Charleville, Saint-Étienne, and other locations.[65]

4 Concluding Thoughts

The great 'organiser of victory' in the Revolutionary Terror, Lazare Carnot (1753–1823), at the heart of a regime dedicated to virtue and the rooting out of antisocial profiteers, nevertheless thought that using contractors – rather than state armaments factories – was the best way to achieve high levels of production. Be that as it may, the regimes that succeeded that of Louis XIV paid far greater attention to the ways they worked with entrepreneurs.[66] When it came to small arms production, regulations and intelligent incentives were put in place in preference to endowing a hegemonic figure with the role of mega-broker, who would then mobilise sub-contractors and artisans on the king's behalf in a mist of obscurity. The documentation from the Regency after 1715 leaves a reader in little doubt that this new government was determined to learn lessons and recast the system to use several entrepreneurs rather than permit itself to be dependent on one great mobiliser.[67] Half a century later efforts to standardise infantry muskets were also extended to other firearms,

64 SHD GR $A^1$2504(III), fol. 317v, Pleneuf to Villegenon, 23 August 1711.

65 AN M1017, *Memoire sur l'irregularité abusive qui se pratique a l'egard du Grand Maistre*, 25 November 1715.

66 The role of entrepreneurs in the Revolutionary Wars is massively understudied. Carnot drew distinctions between good and bad entrepreneurs, but made very clear that using a number of contractors to make arms was far better than establishing a state-owned factory under the domination of a single dubious individual. In this he was following post-1716 wisdom: Lazare Carnot, *Correspondance générale de Carnot*, ed. Étienne Charavay, 3 (Paris, 1897), p. 104, Carnot for the Comité de Salut Public to Legendre de Nièvre, 8 September 1793.

67 Notably: Bibliothèque national de France, *imprimés*, F-4746(14): *Ordonnance du Roy, portant reglement pour le bon ordre que Sa Majesté veut estre observé dans les Manufactures d'Armes, establies à Charleville et à Maubeuge*, 10 July 1722; AN M1006/91, Maine to Bouchard, Rouby fils, and du Saussay, 28 October 1716.

with a tangible sense by the Seven Years' War that there had been considerable improvements in quality (even if there were abject failures to sustain sufficient production in the 1730s–50s).[68]

By that time, but only just, the account had finally been closed on the Titon family's services to Louis XIV in 1754, and the last of their matchlock muskets were only removed from depots that decade.[69] This alone gives a sense of the extent, complexity, and opacity of arrangements between 1665 and 1715. The epic of Maximilien Titon's direction of arms magazines and large chunks of industrial arms production acts as a window into the way the French state could in this period finally begin to mobilise immense resources. However, by virtue of a short-sighted view that ministers could adequately police the details of contracts, and in consequence of poor accounting and limited insistence upon it, of cronyism, and then in the 1700s of sheer administrative disintegration in the finances and desperation, this expansion of weaponry came at the expense of tight control, the lives of soldiers, and the prosperity of skilled artisans. Louis XIV's state was engaged – especially from the 1680s – in a drive for massive expansion in weaponry, and it pushed procurement of men, matériel, and money to impressive and unprecedented new heights. But in its employment of poorly-scrutinised mega-contractors it pursued this path with a near-reckless disregard for upholding quality and value-for-money. It is possible this did not matter in the great business of getting arms to the king's troops, but the evidence from Colbert's tenure in the navy ministry, and in the attempts by the Regent Orléans to close the door to abuse, indicates that to some powerful contemporaries it most certainly did.

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68 SHD AA 4w467: *Memoire sur la manufacture d'armes établies dans le Royaume*, May 1759 and *Mémoire sur la Manufacture de St Etienne, Vers 1760*.

69 SHD AA 5w18, *Memoire sur le Magazin Royal des armes à Paris*, [1754]; Bonnefoy, *Les armes*, pp. 389, 399.