ENDRE SASHALMI

COMMAND AND CONTRACT IN RUSSIA FROM THE MID-16TH CENTURY TO 1725: CONTRACTOR STATE, PRIVATE ENTREPRENEURS(HIP), AND SUPPLYING THE RUSSIAN ARMED FORCES[1]

The present study aims to give a general overview of what the role of the state and private entrepreneurs(hip) was in supplying the Russian army (and the Baltic navy created by Peter the Great) with armaments and victuals in a period falling between two major European wars in which Russia was heavily involved: the Livonian War (1558-1583) and the Great Northern War (1700-1721). It makes use of the paradigm of the "contractor state" adopted by recent Western historiography, and places Russia in a European context while highlighting the peculiarities of the Russian case. The study concludes that the modernization of Russian statecraft and the armed forces under Peter the Great opened up opportunities to native entrepreneurs on an unparalleled scale, and that the autocratic state had to rely heavily on private entrepreneurs.

Keywords: contractor state, private entrepreneurs(hip), army supplies, supplies to the Baltic Navy, war industries, Demidov family, patrimonial state, mercantilism

Endre Sashalmi – D.Sc. in History, Professor, Institute of History, Faculty of Humanities, University of Pécs; Member of Department, Department of Medieval and Early Modern History. E-mail: endresashalmi@gmail.com. ORCID: https://orcid.org/0000-0003-1490-074X

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This study was inspired by a 2018 general introduction to a series of articles highlighting a new approach to the study of early modern warfare and state-building, focusing on the 18th century. The main points of this paradigm, replacing the preoccupation with the "fiscal-military state," can be summarized as follows. "The newer literature on early modern warfare and state formation tended to focus on the cumulative mobilisation of armed forces and the subsequent degree of administrative expansion achieved by the central state, and assumed that this process entailed the wholesale rejection of medieval or feudal arrangements based on the participation of local or regional elite groups, urban institutions such as guilds or military entrepreneurs. According to this model, nationalising the armed forces and setting them up on a more professional basis in turn called for growing administrative control and greater fiscal and financial powers at the central level."[2]

This new approach, which led to the coining of the term "contractor state," questioned the idea that "the process of state formation necessarily occurred at the expense of non-state institutions and entrepreneurs."[3] Research came to focus on the logistical and productional side of warfare and came to the following conclusion: "The organisation of warfare involved a vast array of businesses, including large- and small-scale arms producers, suppliers of the army and the navy, contractors and subcontractors involved in the building of warships or fortresses, international banking houses and petty traders who followed the trail of armies."[4] The "contractor state" used the entrepreneurs to procure "the supplies it needed," but at the same time entrepreneurs proved to be "an efficient way of extending" state authority: they "could act as a means of enlarging the state's influence", but also participated in changing military technology and even acted as the main "implementors of the innovations sought by the state."[5] This new approach thus put relations between the *state* and *private entrepreneurs(hip)* at the centre.

Russia provides an interesting case study for examining this relationship for several reasons. One is the so-called patrimonial nature

2 Rafael Torres-Sánchez, Pepijn Brandon and Marjolein't Hart, "War and Economy. Rediscovering the eighteenth-century military entrepreneur", *Business History* no.1 (2018): 4–22, here 6.

3 Rafael Torres-Sánchez, Pepijn Brandon and Marjolein't Hart, "War and Economy", 6.

4 Rafael Torres-Sánchez, Pepijn Brandon and Marjolein't Hart, "War and Economy", 5

5 Rafael Torres-Sánchez, Pepijn Brandon and Marjolein't Hart, "War and Economy", 6, 8.

of the Russian state with its peculiarities, while others are tied to the modernization of Russian statecraft by Peter the Great and the grand military reforms of the tsar that made Russia a power to be reckoned with in European matters both on land and at sea. Lack of space precludes detailed analysis of the patrimonial nature of the Russian state in this period. Suffice it to say that the concept of the *state* inevitably implies the idea of a *public sphere*, but the notion of the "public" was not a point of reference in Russia until 1682, and it was not until the early 1700s that the crucial distinction between *public law* and *private law*, along with corresponding Russian terms, would enter the Russian legal vocabulary. The tsar was the "nominal universal proprietor" of the realm[6] (of both its subjects and resources), confirmed by a Muscovite proverb of the seventeenth century: "Everything belongs to God and the Master" (*Vse bozhego i gosudarevo*). And the very word which came to mean *state* in modern Russian in the eighteenth century, i.e., *Gosudarstvo* (a derivative of *Gosudar'*, which had earlier been one of the many titles of Russian monarchs but came to mean simply "ruler" in the eighteenth century), preserved a strong personal, and hence a proprietary connotation.[7]

Despite the new political rhetoric which involved constant reference to the *common good* and *Gosudartsvo*, the proprietorial (patrimonial) attitude to state power did not change in practice during Peter the Great's reign: what happened was a shift in thinking which abandoned the passive and pious image of the ruler and openly championed change. The new image of the so-called "reformer tsar," who was to take care of the terrestrial well-being of his subjects, was imbued with the concept of the *Police* borrowed from the West, which was not yet identical with the narrow idea of keeping order and prosecuting crime. At that point *Police* meant government in the broadest sense aiming to regulate and order society towards a desired goal, namely, what the government thought

6 Marshall T. Poe, *"A People Born to Slavery": Russia in Early Modern European Ethnography, 1476-1748* (Ithaca: Cornell University Press, 2000), 225.

7 For the peculiarities of Russian ideas on the state and the nature of Russian statehood, see my recent book: Endre Sashalmi, *Russian Notions of Power and State in a European Perspective 1462-1725: Assessing the Significance of Peter's Reign* (Boston: Academic Studies Press, 2022).

to be the *common good*.[8] The *"Police State"* (the term itself appears in Russian under Peter the Great) concept of the common good was an activist one, coming close in meaning, especially in Russia, to the good of the state, a notion which in Peter's perception was identical with the military capacity and the might of the empire.

Because of the patrimonial attitude to government, the tsar/ emperor (after 1721) could extract resources from the population as he wished, which was made easier due to the principle of *universal service* to be rendered to the ruler, or from the time of Peter the Great, nominally to *Gosudarstvo*. The service principle was strengthened even further by Peter as he made the concept of nobility dependent on service, whether in the army or the administration. Last but not least, the *peculiar nature of Russian serfdom* should be given due emphasis in a European context, as the personal dependence of serfs living on the lands of private landowners was much more extreme than elsewhere in Western Christendom. Despite official government bans (as in the Law Code of 1649) serfs could be sold like chattels, i.e., without land, or even individually by breaking up families.[9]

The problem of supplies and logistics from the mid-sixteenth century to ca. 1700

In dealing with the issue of provisioning, we have to begin with the *size* and the *character* of the Russian army, which, despite its growth and important changes during the seventeenth century, did not undergo a fundamental reorganization of the sort made inevitable by the Swedish defeat of the Russian army at Narva in 1700. At the beginning of the period, after the conquest of the Khanates of Kazan (1552) and Astrakhan (1556) in the east and southeast, the major enemies of Russia in the West were the Polish-Lithuanian Commonwealth (1569) and Sweden, while in the south the Crimean Khanate posed a constant threat.[10] From the late

8 Marc Raeff, *The Well-Ordered Police State: Social and Institutional Change Through Law in the Germanies and Russia, 1600-1800* (New Haven–London: Yale University Press, 1983), 5.

9 Janet Hartley, *A Social History of the Russian Empire 1650-1825* (Cambridge: Cambridge University Press, 1999), 66–69.

10 The importance of this front is shown by the fact that Muscovite rulers maintained an almost permanent diplomatic mission in the Crimea from the 1560s on, although the tsars did not have such a presence in any other polity.

seventeenth century on, however, a direct confrontation began with the Ottoman Empire (1678-1681), to which the Crimea had sworn allegiance in 1475, opening the way to a series of Russo-Turkish Wars which lasted into the nineteenth century. These enemies, especially the Crimean Tatars, were "beyond the limits of what a supply train could carry."[11] In the sixteenth and seventeenth centuries, no doubt, it was the southern steppe which was a constant threat, the intensity of which depended on the seasons of the year. The vast and almost unpopulated region could provide nothing but fodder for the Russian army (provided the Tatars had not burned the steppe) when it risked to undertake campaigns and tried to overcome the long distance separating the Crimea from Moscow. Since these steppe nomads remained the main enemy of Russia for a long time, the adoption of firearms was slow, as it would have slowed down "the maneouvring speed" of the army.[12] Until about the 1660s the Muscovite army remained mainly a "rapidly moving light cavalry," and most of the army "gathered seasonally, only to return home at the end of the campaigns season."[13] The low level of economic development in the East European region (in terms of population density, agricultural yields, level of urbanization and monetarisation) set the context for the Muscovite army's specific "supply needs": to "live off the land", i.e., to obtain food from the local population was not an option.[14]

The bulk of the Muscovite army from the late fifteenth century on consisted of self-supporting cavalrymen, the so-called *military servitors* (*pomeshchiki*) armed with bows and arrows, axe and sword. Compulsory military service, however, was not confined to the *pomeshchiki* after 1556: it was extended and also regulated by obliging all landowners in possession of a certain amount of land to serve as cavalrymen. They had to equip and also provide for themselves: most of the time equipment and food (e.g. salt, bacon, millet seeds, garlic, onion) were carried in sacks on a single horse (they were expected to bring 3.5 months of supply), in the event of a long campaign they had to come with two horses.[15]

11 Carol B. Stevens, "Food and Supply: Logistics and the Early Modern Russian Army", in *Warfare in Eastern Europe, 1500–1800*, ed. Brian Davies (Leiden: Brill), 119–146, here 127.

12 Alexandr Filjushkin, *Ivan the Terrible*: *A Military History* (London: Frontline Books, 2008), 17.

13 Stevens, "Food and Supply", 120.

14 Stevens, "Food and Supply", 119–120.

15 Stevens, "Food and Supply," 121-129, 135. А. В. Зорин, «Проблема средневековой логистики на Руси (отзыв на работы Пенского В.В. ««...И запас пасли на всю зиму до весны»: логистика в войнах Русского государства эпохи позднего Средневековья

Since warfare with the steppe nomads did not force radical changes, the "fundamental structure of the army" did not change – perhaps not until about 1700,[16] but arguably until the 1660s. The first small change in the composition of the army came in the 1550s with the creation of the *streltsy* (musketeers), infantry equipped with firearms. They were employed as palace guards and garrison soldiers, but during campaigns they served as infantry, and although their number was not great, just a few thousands, their provisioning created a new challenge leading to the establishment of the *strelets tax,* and even to the *Strelets prikaz (Strelets Chancellery)*, to take care of their affairs.[17]

Another, and more important problem arose from "long campaigns and fortress sieges," as experienced first during the Livonian War, when storage granaries were established by the government in the border fortresses in the West;[18] similarly, granaries were set up in the centres of the newly conquered khanates and other major towns on the Volga river,[19] when from the mid-sixteenth century onwards the Volga became the backbone of Russian internal trade. Despite these measures, the strategy of "living off the land" in the Livonian War became increasingly common as this type of warfare strained the capacities of cavalrymen.[20] In the sixteenth century it was mainly the task of the *Military Service Chancellery*, which planned the campaigns,[21] to cope with these burdens, including the distribution of handguns during time of war. The aforementioned developments indicated the early spread of the military revolution, which at that time was just scratching the surface: adoption of firearms was on a small scale, occasional sieges did not change the structure of the army, hence the supply system.

In analyzing seventeenth-century practices, Zorin makes a distinction between provisioning the army before the campaigns and during the campaigns.[22] In the first case the food supply came from three major sources: landowners, lay and ecclesiastical (the estates of the patriarchate

– раннего Нового времени» и Несина М.А. «Из истории логистики русских войск в XV-начале XVI в.»)», *Milhist* (2016): 310–346, here 327.

16 Stevens, "Food and Supply", 120.

17 Stevens, "Food and Supply", 127.

18 Stevens, "Food and Supply", 128.

19 Nancy Shields Kollmann, *The Russian Empire*, *1450–1801* (Oxford, Oxford University Press, 2017), 164.

20 Stevens, "Food and Supply", 133.

21 Kollmann, *The Russian Empire*, 164.

22 Зорин, «Проблема», 324–339.

and the monasteries) were ordered to collect and transport flour, dried bread, oat flour and groats to collecting points, from which their serfs carted these stores close to the site of the campaign; other foodstuffs, such as meat, salt, beverages came from the tsarist magazines; and military servicemen had to provide for their own personal needs.[23] During the campaigns, especially in the mid-seventeenth century, there was a growing need to send large sums of money to the troops so that they could buy food on the spot.[24]

In the seventeenth century the need to consolidate the southern frontier posed a new challenge to army logistics, but the military reforms of the 1630s, 1650s, and 1680s made provisioning even more burdensome.[25] The so-called *Belgorod line* built in the 1630s and 1640s at the edge of the southern steppe region (the chain of fortified places which by 1650 consisted of 22 forts stretching over 800 kilometres, named after its central fortified settlement) was subsequently extended from Kozlov to Simbirsk (the *Simbirsk line*).[26] The construction of this enormous defence line, which also included "earthen wall segments," required substantial investment and also imposed the burden of provisioning these garrisons with food supplies: therefore, the first step was to settle colonists there.[27] The soldiers serving at the frontiers were supplied by so-called "service bread stores" (these included rye, flour, hardtack, porridge, buckwheat) provided by the settlements close to these garrisons, while meat, salt and wine were transported to them from Moscow from the government magazines.[28]

In the West, the Smolensk War (1632-1634) presented another type of challenge, as "the war was envisioned and carried out as a prolonged siege,"[29] and was aimed at taking back the town of Smolensk and the region lost to the Polish-Lithuanian Commonwealth during the Time of Troubles (1598-1613). Moreover, this war witnessed the first attempt to modernize the Muscovite army, i.e., to use the new western-type units (infantry with

23 Зорин, «Проблема», 324–325.
24 Зорин, «Проблема», 333–336.
25 Kollmann, *The Russian Empire*, 165.
26 Kollmann, *The Russian Empire*, 69-70.
27 Brian Davies, "Muscovy at war and peace", in *The Cambridge History of Russia*, ed. Maureen Perrie (Cambridge, Cambridge University Press, 2006) vol. I. 486–519, here 494–495.
28 В. А. Волков, *Войны и войска Московского государства. (конец XV — первая половина XVII вв.)* (Москва, 2004), 313.
29 Stevens, "Food and Supply," 135.

firearms) which formed at least a third, according to other sources half, of the army numbering about 35 000 men.[30] This war showed clearly that the advances of the military revolution in siege techniques and firepower were not at all foreign to Muscovy,[31] even though this first effort to change the composition of the army was unsuccessful. As for provisioning, the general pattern described above was at work, supplemented by other solutions. Nearby villages were assigned to supply particular regiments; furthermore, a new tax, called *nemetskii korm* ("German feeding"), was introduced to provide for the new regiments, paid "mainly in kind in the form of prepared food (hardtack, flour, salted pork)."[32] The name of the tax shows that a considerable part of the new regimental units consisted of mercenaries from Northern European countries whom the Russians called by the general name, "Germans". The real novelty in the war was the way the government turned to contractors on a larger scale than before: "the government contracted with sutlers to buy, deliver, and sell (at a set price) significant additional foodstuffs to the army in its Smolensk camp", and they were "also charged with the delivery of some of the provisions yielded by the *nemetski korm*."[33] These men, called "caterers" (*khvarchevniki:* from the word *khvarchevnia*, meaning "eating house"), became increasingly important in the course of the seventeenth century: they supplied the troops,[34] providing them with semi-prepared food for cash, and their inclusion into the system partly explains the troops' growing need for cash on the spot. Despite these efforts, the prolonged siege and the concomitant delays of delivery not only of food but also of heavy artillery put serious pressure on the whole army, even on the traditional light cavalrymen who were expected, in principle, to be self-sufficient.[35]

The Thirteen Years' War (1654-1667) imposed an even greater burden on the government concerning the provisioning of the army with food (and also weapons, as we shall see) not only due to the protracted warfare (mainly with the Polish-Lithuanian Commonwealth) but also due to the growth of the size of the army and its increasing infantry component.

30 For the differing figures see Stevens, "Food and Supply", 136., and Robert Frost, *The Northern Wars*: *War, State, and Society in Northeastern Europe, 1558–1721* (Longman, 2000), 144.
31 Frost, *The Northern Wars*, 146–147.
32 Stevens, "Food and Supply", 136.
33 Stevens, "Food and Supply", 137.
34 Зорин, «Проблема», 333-336.
35 Stevens, "Food and Supply", 137.

During this conflict the advances of the military revolution were adopted on a large scale but the muster still depended on the old system, i.e., the military obligations of the service landholding class: these men, forced to serve unmounted, composed much of the infantry. Before Peter's reform of the army, the "decisive shift" from the old-style Muscovite army, represented by the dominance of light cavalry and the presence of a small infantry equipped with firearms, took place during the Thirteen Years' War: by 1663 the new formation units comprised 79 % of an army 98 000 strong.[36] This trend continued: in 1689 the army of 110 000 strong sent against the Crimea included only a small portion of the old-style light cavalry, whereas the new cavalry using firearms and the new infantry numbered 30 000 and 50 000 men respectively.[37] Paradoxically, the modernisation of the army proved to be a setback in the conflict with Muscovy's traditional enemy, the Crimea. The unsuccessful campaigns of 1687 and 1689 against the Crimea showed the weakness that the lack of food supply generated during long campaigns in the case of a large army operating in a terrain where living off the land was impossible, even though a logistical improvement was noticeable in planning these campaigns.[38]

Finally, Peter's campaigns against Azov in 1695-1696 showed that "efforts to change the whole structure of the army would require the gradual restructuring of the entire supply system. Gradually, the Russian army moved to a year-round supply system for a large standing army."[39] Understandably, in the early years of the Northern War these efforts were "less successful in mustering resources and organizing distribution than those of the seventeenth century."[40]

Building Russian military industry: supply of arms and ammunitions to 1700

"At the beginning of the seventeenth century Russia had practically no domestic metal industry. All domestic iron came from swamp ore and was neither voluminous nor high-grade enough to produce reliable

36 Frost, *The Northern Wars*, 234.
37 Frost, *The Northern Wars*, 234.
38 Kollmann, *The Russian Empire*, 165–166.
39 Stevens, "Food and Supply", 144.
40 Stevens, "Food and Supply", 144.

weaponry."[41] Muscovy, therefore, was almost completely dependent on the *import of metals (iron and copper) necessary for manufacturing arms,* and *to a great extent on the import of various weapons* and *ammunitions* (including chemicals used to produce gunpowder) from the West.[42] For practical purposes until the 1630s there was no armament industry in Russia, apart from the government operated workshop in Moscow making mainly cannons.[43] It was only in 1632 that two Dutch entrepreneurs, Andreas and Abraam Vinnius, were given permission (and even subsidized by a massive government fund) to set up an ironwork manufacture in Tula with the obligation to produce iron and arms, and sell their products to the treasury. Although production of weaponry at the Tula ironworks grew in the seventeenth century with new enterprises appearing there, demand by far exceeded supply, and domestic arms production remained insufficient as late as 1716.[44] Under these circumstances Russian rulers employed various methods to obtain weapons and war materials from the West. As for saltpetre (necessary for gunpowder) the problem was mainly solved when the Russian protectorate over Little Russia/Ukraine was established (1654) and the territories on the left bank of the Dnieper river (and Kiev on the right bank) came under Muscovy's control (1667).[45]

Weapons and war materials became available to the Muscovite government through the following means, ranked in reverse order of importance: 1, occasional donations by Western foreign powers; 2, purchases made by native diplomats or privileged native merchants sent abroad for this purpose by the government; 3, commissions given to resident foreign merchants in Russia living mostly in Moscow and the main trading centres, often collectively called "Germans" *(Nemtsy)*; 4, sporadic contracts given to foreign merchants (English and Dutch) staying temporarily in Russia.

41 Jarmo Kotilaine, "In Defense of the Realm: Russian Arms Trade and Production in the Seventeenth and Early Eighteenth Century", in *The Military and Society in Russia 1450–1917,* ed. Marshall Poe, Eric Lohr (Leiden: Brill, 2002), 67–95, here 67.

42 Kotilaine, "In Defense of the Realm", 67–69.

43 Small calibre iron cannons were cast in Muscovy as early as the fifteenth century, but real improvement came only in the 1470s as Italian masters entered Muscovite service. Then bronze cannons were cast and by 1494 a cannon and ammunition workshop was operating in Moscow. Carol B. Stevens, *Russia's Wars of Emergence 1460-1730* (Routledge, 2007), 47. Still, Russia was in need of imported cannons in the sixteenth and seventeenth centuries.

44 Kotilaine, "In Defense of the Realm," 92.

45 Kotilaine, "In Defense of the Realm" 92.

The merchants in the last category played the most important role in supplying Russia with war materials and weapons, and the tsars, in turn, allowed them to export substantial amounts of grain, furs, and all kinds of materials necessary for shipbuilding.[46] By the end of the sixteenth century Arkhangelsk (founded in 1583) had become the only port for Russia's Western trade, and from the 1590s on, English merchants were increasingly overshadowed by the Dutch, who almost completely dominated Russia's foreign trade in the seventeenth century and became the main suppliers of weaponry for the tsar, while Sweden remained the main supplier of iron and copper until 1700.[47] There was no sign of a mercantilist-minded desire on the part of the government to end dependence on foreign resources.

J. Kotilaine gives detailed information on the Muscovite import of weapons and war materials in different periods of the seventeenth century. Imports obviously peaked in the years preceding the major wars of that century (the Smolensk War and the Thirteen Years' War), and understandably, in time of war: partly to provide for the growing demand posed by the rise of the field army, and partly to compensate for war losses.[48] Figures for the import of muskets through various means range from a few hundred or 1000 to 10 000 or so in different years, but in 1653 the amount was much more substantial, 50 000, and in this year we also hear of the import of cloth for army uniforms.[49] There are also detailed data for the import of bronze cannons, pistols, swords, carbines; sometimes a small part of the weaponry came from donation, as in 1635 when Sweden needed the support of Russia in the Thirty Years' War.[50]

The 1650s and the 1660s may have marked the peak of arms import in the seventeenth century due to "protracted warfare and still very little domestic production of either metals or weapons,"[51] as well as the reform of the army with the aforementioned growth of the infantry. To cope with the demand for arms, the government turned "almost exclusively to foreign merchant contractors," commissioning three Dutchmen and an Englishman

46 Kotilaine, "In Defense of the Realm", 72.
47 Jan Willem Veluwenkamp, *Archangel. Nederlandse ondernemers in Rusland, 1550–1785* (Amsterdam 2000), 16–21, 27–32.
48 Kotilaine, "In Defense of the Realm", 70–82.
49 Kotilaine, "In Defense of the Realm", 72–73.
50 Kotilaine, "In Defense of the Realm", 73.
51 Kotilaine, "In Defense of the Realm", 77.

with the task.[52] During the years of 1659-1662 two Dutch merchants active in Arkhangelsk, Johan van Sweeden and Hendrick Swellengrebel, were the Russian tsar's main arms suppliers on an enormous scale: they imported over 100 000 firearms for the Russian army.[53] From about the mid-seventeenth century until the early eighteenth, the "Armoury Chamber" was responsible not only for storing weapons, as its name would indicate, but also for arranging the purchase of arms abroad; furthermore it was responsible for testing, repairing the arms acquired, and last but not least, taking care of their transfer to the troops.[54]

Supplying the army and the Baltic Navy under Peter the Great

After the experimentation of the seventeenth century, the Russian army finally became a standing army in the early 1700s, operating with strict regulations. Peter's great achievement was "to provide a secure institutional and social framework" within which the Russian fiscal-military state would operate for the rest of the century, and even longer.[55] Peter's main reform was introducing general conscription in 1705, ordering every twenty households to provide a recruit (conditions of recruitment changed over time) – a move that completely changed the source of manpower for the army (and the navy). Personal military service for the nobility, now as officers, was also strictly enforced. The second innovation was the reform of the central organs of state administration dealing with military affairs: at first, Peter followed tradition, experimenting within the framework of the old *prikaz* (chancellery) system, but from 1717 on, he switched to European models. Finally, the bureaucratic regulations he drew up for the operation of the army (1716) and the navy were also of the utmost importance.

In the seventeenth century new chancelleries were established for military affairs either on a temporary or a permanent basis, but by the end of the century they were subordinated to the Military Service

52 Kotilaine, "In Defense of the Realm", 76.

53 Veluwenkamp, *Archangel,* 149.

54 С. П. Орленко, «Оружейная палата и вооруженные силы России во второй половине XVII – начале XVIII в.», *Вестн. Волгогр. гос. ун-та*. Сер. 4, Т. 21, no. 2 (2016): 71–78, here 72.

55 Frost, *The Northern Wars*, 320.

Chancellery, which acted as a "military super chancellery": resource mobilization thus paralleled administrative centralization.[56] Peter also created new chancelleries, among which the War Chancellery (*Voennyi prikaz)* (created in 1700–1701) stands out as it was empowered with wide range of functions. Yet, it did not enjoy the hegemonic position that the Military Service Chancellery had held before,[57] as other newly-created chancelleries dealing with military affairs remained independent of it. Among these the ones crucial to our topic are: the Admiralty, "responsible for the creation and maintenance of the fleet," the Artillery Chancellery, and the Provisions Chancellery (established in 1700) for taking care of the food and fodder for the army.[58] The system, however, continued to change over time as the Provisions Chancellery, for instance, was later subordinated to the War Chancellery.[59]

The final solution to the problem of coordination came with the creation of the Senate in 1711, and eventually with the establishment of the so-called *colleges*, the new type of organs of state administration replacing the old *prikaz* system from 1717-1718 on, in other words, with the radical reorganization of the administrative structure of the Russian state.[60] Recently V. N. Benda has argued that before the 1711 regulation establishing the Senate "there was no centralised organ or personnel in the Russian army in charge of the organisation and control of provisioning the troops with food and fodder."[61] The establishment of the colleges was a further step. Located not in Moscow but in the new capital, St Petersburg, the first colleges were the College of War, the College of the Admiralty and the College of Foreign Affairs: they were not only the pioneer colleges, but also the most important, and the most specialized ones.[62] By 1725, at the end of Peter's reign, the size of the army is estimated to have been about

56 Brian Davies, *Empire and Military Revolution in Eastern Europe: Russia's Turkish Wars in the Eighteenth Century* (London-New York: Continuum, 2011), 81.

57 Davies, *Empire and Military Revolution,* 81–82.

58 Davies, *Empire and Military Revolution,* 81.

59 Davies, *Empire and Military Revolution,* 82.

60 В.Н . Бенда, «Создание системы материально-технического обеспечения русской армии, артиллерии и инженерных войск, их личного состава в начале XVIII в.», *Вестник Брянского государственного университета*. Сер.: Исторические науки и археология. Литературоведение. Языкознание. Педагогические науки 28, no. 2 (Брянск: РИО БГ У, 2016): 16–23. here 16–22.

61 Бенда, «Создание системы», 17.

62 Evgenii V. Anisimov, *The Reforms of Peter the Great: Progress Through Violence in Russia* (Routledge, 1993), 147–148.

200 000 (with an additionial roughly 80 000 irregular troops), while the Baltic Navy in 1725 numbered about 25 000 men serving on 34 warships.[63]

For provisioning the army Peter the Great set up within the newly created College of War two offices bearing mixed Russian-German names which clearly show their function: the *Main War commission (Glavnyi-Krieg kommissariat)* was responsible for paying and supplying the troops with war materials in the widest sense (uniforms, weapons, ammunitions) while the *Main Provisionsmaster commission (Glavny proviantmeister kommissariat)* was charged with obtaining foodstuffs and forage.[64] For political and economic reasons most of the troops were stationed in the Baltic provinces and in Ukraine. Location of the troops in these regions was due to political and economic causes – among the latter was the position of the strategic ports of Estonia (Tallinn, Narva) and Latvia (Riga), and the intention to relocate the army to the main grain-growing regions.[65] In the 1730s a magazine network was built along Russia's major roads,[66] and "detailed regulations governing their administration" were drawn up establishing the size of depots and even prescribing that "their wooden floors were to rest on brick supports 'so that no mice shall get through'."[67]

After the conquest of Azov in 1696, Peter created a navy in the Black Sea. However, as a result of his disastrous Prut campaign in 1711 (where his army was encircled by the Ottoman army), the tsar was obliged to destroy this fleet in 1712. Of course, new measures were necessary to supply this navy, but for us the creation of the Baltic Navy, a much bigger and permanent navy, is more important not only because its supplies are better documented but also because it survived Peter. The creation of this navy was a more fundamental innovation of Peter's reign than his reorganization of the field army. I. G. Durov's magisterial monograph provides detailed information on the food and drink supply of the Russian Baltic Navy under Peter – a description ranging from the technological process of making dried and other foodstuffs to the size of the state magazines established for storage, and showing the operation of the different levels of the whole bureaucratic system in control of the

63 Hartley, *A Social History,* 26.

64 John H. Keep, "Feeding the Troops: Russian Army Supply Policies during the Seven Years War", *Canadian Slavonic Papers* 29 (1987): 24–44, here 25.

65 Л. Г. Бескровный, *Русская армия и флот в XIX в. Военно-экономический потенциал России*. (Москва: Наука, 1958), 120.

66 Бескровный, *Русская армия и флот,* 124.

67 Keep, "Feeding the Troops", 26.

administration of such supplies. A parallel monograph dealing with the food supplies for the field army in the eighteenth century is required to make a full analysis possible.

The turning point in the provisioning of the Baltic Navy came in 1715. A division called the "Provisions Chancellery" was set up within the Admiralty with depots under its control in different ports, responsible for the task of providing food and drink for the navy.[68] In Durov's opinion the formation of the personnel of this chancellery was the most important factor in the effective provisioning of the Baltic fleet.[69] Besides the organizational aspect, the adoption of methods employed by the Dutch navy in producing dried bread, salted beef, and beer was crucial: by 1721 Dutch technology accounted for one-third of the dried bread, a quarter of the beer, and almost the entire salted beef supply produced in Russia for the navy.[70] Finally, we should not forget the importance of legislation between 1716-1722 (in accordance with the idea of the *"Police state"*) which created the whole legal framework for the operation of the navy, including its provisioning with food supplies.[71] These regulations even prescribed the dates when the victuals were to be taken to the magazines by merchants, namely, in autumn and winter "'so that it be ready by spring'".[72] But once the products were accepted by the officials of the depots, the whole process of storing, distributing and even loading the food supply on ships was strictly controlled by government officials.[73] Shipment of various products to the ports was mainly on paid riverboats, the vessels being guarded and accompanied by state officials – occasionally even the postal service was used for this purpose.[74]

Although private producers were also employed in providing the food and drink supply (brewing beer, for instance), the massive needs of the navy required not only the establishment of state enterprises (bakeries in St Petersburg and Tallinn (Reval) and salted beef processing in St Petersburg) but, above all, *a massive service obligation imposed on the population*, mostly in providing baked dried bread, and to a lesser extent

68 И. Г. Дуров, *Провиантское обеспечение флота в эпоху Петра Великого* (Изд-во Нижегородского гос. университета, 2002), 503.
69 Дуров, *Провиантское обеспечение*, 553.
70 Дуров, *Провиантское обеспечение*, 549.
71 Дуров, *Провиантское обеспечение*, 550–551.
72 Дуров, *Провиантское обеспечение*, 538.
73 Дуров, *Провиантское обеспечение*, 538–543.
74 Дуров, *Провиантское обеспечение*, 440.

other commodities.[75] Local communities, towns and villages selected by the order of the *Senate* were to do this work: they were given detailed instructions and even samples by the Admiralty to maintain standards.[76] Durov claims that practically all layers of society were obligated to produce baked dried bread for the navy based on quotas: the nobility as owners of villages, and even the monasteries of the Russian Orthodox Church through its bakeries were compelled to satisfy the needs of the navy.[77] This was not Peter's invention, as we have seen, but it was enforced on a much larger scale than before. It was easier for the tsar to obtain the Church's deeper involvement, as the office of the patriarch was left vacant between 1700-1721, and this enabled the tsar to control the Church through a *locum tenens* he appointed before he abolished the patriarchal office in 1721.

Making armaments in Petrine Russia

It has already been mentioned that Russia in the seventeenth century was not self-sufficient in producing weapons and heavily depended on the import of arms as well as metals necessary for this purpose. This situation was made worse when Peter lost his whole field artillery at the battle of Narva in 1700.[78] According to Kotilaine in 1711 the Russian army needed 122 600 muskets, 49 800 carbines, 200 000 swords, sabres, lances, plus "12-15000 guns a year were needed as replacements."[79] The Tula arms factories were ordered to produce 18 000 firearms per year, but capacity ranged only from 2 to 4 000.[80] A drastic change came in 1715 with the reorganization of production and improvements in technology: "Between late 1715 and 1718, the works turned out over 4500 muskets and carbines and nearly 19 000 pistols."[81] *How did this change come about during the first decades of the 18th century?*

From the early 1700s, Peter's reign was characterized by a clear mercantilist determination to develop domestic industries, but priority was given to those which were vital for the armed forces. "In the Petrine

75 Дуров, *Провиантское обеспечение*, 297–301., 318–321.
76 Дуров, *Провиантское обеспечение*, 297.
77 Дуров, *Провиантское обеспечение*, 297.
78 Beskrovnyi, *Russkaia armiia i flot,* 75.
79 Kotilaine, "In Defense of the Realm", 92.
80 Kotilaine, "In Defense of the Realm", 92.
81 Kotilaine, "In Defense of the Realm", 92.

period, as before, the most important industrial entrepreneur remained the state, which concentrated its attention completely on the creation of those branches of industry which served the needs of the army."[82] A crucial step towards self-sufficiency in arms was the establishment in 1712 of a state armament factory in Tula which employed new technology in the production of small arms. Between 1721-1723 another armament factory was built at Sestroretsk, in the neighbourhood of the new capital St Petersburg, which was one of the largest and technologically the most advanced of such enterprises created by Peter: it worked both for the army and the navy as it manufactured not only guns, pistols, and swords but also anchors and nails.[83] Furthermore, St Petersburg became the second major site of the artillery industry in addition to Moscow when a "cannon-casting foundry" was set up between 1711-1713, renamed as the Arsenal in 1720.[84]

The tsar encouraged private entrepreneurship not only through personal privileges, as we shall see with the case of the Demidovs, but also as a result of general state legislation on these matters. The manpower of industrial enterprises (manufactories) was provided overwhelmingly through the use of forced labour. In the case of state manufactories *state peasants* of certain villages were assigned to state firms and they were obliged to perform labour duties according to various arrangements prescribed by the government. Private entrepreneurs had two options to obtain the workforce their manufactories needed if they were not landowners: one way was to hire serfs or state peasants on a temporary basis, or to buy serfs without land, as it was possible for landlords in Russia to sell their serfs (as noted before). What is more, despite Peter's ban on selling "individual serfs as opposed to whole families," family members were still sold separately, and as late as 1771 Catherine II had to forbid the auction of serfs.[85]

In 1721 Peter allowed the merchant-owners of newly created private industrial enterprises to buy villages with serfs tied to the land, with a strange provision that purchasing back these villages was possible only

82 Ольга Владимировна Арсенина, *История российского предпринимательства* (Изд-во Владимир. гос. ун-та, 2008), 38–39.

83 Ian M. Matley, "Defense Manufactures of St. Petersburg 1703-1730", *Geographical Review*, 71, no. 4 (Oct., 1981): 411–426, 417.

84 Matley, "Defense Manufactures", 417.

85 Hartley, *A Social History,* 68–69.

together with the manufactory attached to them.[86] This is a telling example of the importance of government legislation on contracts, and the clause in question clearly showed that the needs of the state came first. This was also the case with another related legislative act in 1721 which forbade landlords to take back masters and apprentices from the firms, "'no matter who they are, even if they are runaway [serfs]'".[87] This decree went against the letter of the Law Code of 1649 which gave landlords the right to seek and bring back their runaway serfs without any time limit. Due to Peter's decrees, Russian manufacturing was almost exclusively based on forced labour, an arrangement which was endorsed after Peter's death, as Empress Anne (1730-1740) confirmed that all those working in the factories were tied to them, even those who were not serfs![88] The success of Peter and his successors in becoming self-sufficient in producing iron, the most important prerequisite for making arms, to a great extent depended on the most remarkable private enterprise of eighteenth-century Russia, the Demidovs' enterprise.

The Demidovs' family enterprise

The story of the Demidovs' enterprise provides an invaluable insight into the history of eighteenth-century Russian private entrepreneurship and its relations with the state (*Gosudarstvo*). Although the story might not be typical, as this family enterprise was beyond doubt the greatest private industrial undertaking of the whole century in Russia – hence giving it a unique bargaining potential and resulting in unprecedented wealth and privileges for its owners –, in other respects it illustrates well the nature of relations between private entrepreneurs and the representatives of state power. It is clear that the Demidovs' family enterprise requires us "to re-evaluate some conventional images of Russia's economic development."[89] *Their story, in the long run, confirms the mutual interdependence of the central government and private entrepreneurs, rather than the model of the all-powerful state striving for total control in those branches of*

86 Арсенина, *История*, 41.
87 Арсенина, *История*, 41.
88 Арсенина, *История*, 43.
89 Hugh D. Hudson, "Free Enterprise and the State in Eighteenth-century Russia: The Demidov Metallurgical Empire," *Canadian Slavonic Papers / Revue Canadienne des Slavistes*, 26, no. 2/3 (June-September 1984): 182–200, here 182.

industry which were essential for Russia's becoming a great power, i.e., in the industries serving the military sector.

Nikita Demidov (1656-1725), the founder of the family's fortune, was an illiterate yet highly talented craftsman in Tula, operating a workshop producing refined weapons. When high quality iron ore was discovered in the Urals in 1697 due to Peter's efforts, and the samples of the first cast and wrought iron melted in the newly erected Ural ironworks were sent to Nikita early in 1702 for making arms, he immediately realized the opportunity to improve his fortunes.[90] He travelled to Moscow and petitioned the Siberian Chancellery for the Neviansk factory in the Urals to be transferred to him.[91] The tsar was already familiar with Nikita's capabilities, which explains not only his being asked for his expertise (not the first time in 1702) but also his daring to petition in such an important matter.[92] By 1701, he was prospering, no longer a simple craftsman but the manager of an enterprise, and he was not the only one of this type in the Tula region.[93] As Kafengauz states, Demidov's first grant of privilege in 1701 "contained in an embryonic form all the important advantages" which were likewise conferred in later decrees:

> "In this year of 1701, on the 2nd of January, by our, the great master's personal decree, we, the great master, granted Nikita Demidov, the Tula armaments master, for his outstanding service, permission to build new iron workshops at his own expense, without assistance and without a grant of peasants living on court lands, as they have been given before to foreigners for such workshops in various places and towns, so as to reduce the prices of iron and all kinds of military hardware which have become high under the [control of] foreigners, to whom many court peasants were given for their workshops; and now we have ordered that he, Nikita, and his wife and children shall hold with no time limit his Tula ironworks which were given to him for twenty years instead of a

90 Hudson, "Free Enterprise", 183–184.

91 Hudson, "Free Enterprise", 184.

92 Б. Б. Кафенгауз, *История хозяйства Демидовых в XVIII-XIX вв. Опыт исследования по истории Уральской металлургии* (Т. 1. М.-Л.: Издательство Академии наук СССР, 1949), 84-88.

93 Кафенгауз, *История хозяйства Демидовых,* 89, Pavlenko emphasizes the significance of Tula entrepreneurs in promoting the iron industry under Peter. Н. И. Павленко, *История металлургии в России XVIII века. Заводы и заводовладельцы* (Издательство Академии наук СССР, 1962), 71. In addition, Demidov got extensive lands and forests to provide sufficient waterpower and fuel for extending his enterprise.

> monetary payment; and wherever he may find private estate land or peasants suitable for his iron works, he, Nikita, is free to buy them for the purpose of iron working, so that it will always be abundant. And when iron is not imported from other states, then there will be no scarcity or shortage of military equipment. And he is to have purchase documents for these lands and serfs, and these purchase documents are to be registered in the Armaments chancellery." [94]

After arriving in Moscow in early 1702, Nikita was questioned about the details of his plan by Peter's expert on metallurgical issues, A. A. Vinnius (the son of the Dutchman who established the first ironworks in Tula), who sent a favourable report to Peter: the result was that the tsar duly issued an edict about the transfer at the beginning of March 1702.[95] This was the only case during the reign of Peter when a government operated firm (Neviansk) was transferred to a private entrepreneur.[96] The introduction of the new privilege emphasizes the importance of the *good of the state:* in other words, iron production was a *state necessity*. Demidov's duties were as follows:

> "to increase the production of all types of cast and forged iron in order to provide as needed all types of iron on demand to the *Muscovite state (Moskovskoe gosudarstvo)*, in order that the *state* may obtain all it requires without recourse to Swedish iron, and to have any contracted foreign craftsmen teach the Russians iron handicrafts so that these arts may be firmly established in the Muscovite state."[97]

The text of the privilege conveys the tsar's serious concern about the availability of a domestic supply of iron, which is understandable given the rise in the price of iron obtained from Sweden. While in 1693 one *pood* (one *pood* was circa 17 kgs), cost only 42 *kopeks,* in 1701 it cost 80![98] Demidov was expected to fulfil the demands of the state first, in principle at half the price that was paid to suppliers of iron at that time, but he was

94 Кафенгауз, *История хозяйства Демидовых,* 89.
95 Hudson, "Free Enterprise", 184.
96 Муравьева, "Иностранное предпринимательство", 81.
97 Translation is by Hudson, "Free Enterprise", 184–185.
98 В. В. Запарий, «Предыстория создания металлургии на Урале», *Историко-экономические исследования* Т. 16, no. 2 (2015): 349–365, here 353.

allowed to sell leftover product on the market.[99] Furthermore, he was also *expected to craft different kinds of weapons*, (casting cannons, mortars, and various small arms) for the state.[100] In return, he came to enjoy various privileges, such as purchasing serfs as his workforce, jurisdiction over his workers in minor cases, and above all, he enjoyed immunity from the sanctions of the local officials of the central government, as he was subject only to the Siberian Chancellery.[101] This was only the beginning, however, as subsequent privileges of different kinds broadened not only the scope of his enterprise by attaching villages to it (already in 1703 he had 2500 peasant workers under him) but also his personal rights, giving immunity to him and his family, and placing them first "under the exclusive supervision of a special department in St Petersburg" (1715), and then, in fact, only under that of the tsar himself (1720).[102] Nikita Demidov was also involved in copper production, and even established an enterprise manufacturing sails for the fleet.[103] In 1720, he was the first commoner to receive hereditary nobility in Russia![104] "Although illiterate, he had a phenomenal memory, not only recalling all the activity of the progress of his enterprises, but also reciting long passages from the Holy Writ and pointing out the pages they came from."[105]

In 1725 Nikita Demidov died, and henceforward not only the management but also the full control of the enterprise passed to Nikita's son, Akinfii Demidov (1678–1645), who had to cope with problems similar to those facing his father. The importance of the Demidovs' enterprise by the early 1730s is shown by the fact that "there were only two proprietors of metal enterprises in the Ural region: the treasury and Demidovs."[106] After him came, in ranking order, the greatest merchant family in Russia, the Stroganovs, who had made their fortune mainly in salt-making from the second half of the sixteenth century and the merchant Turchaninov.[107] Their wealth and the factories operated by the family made the Demidovs indispensable to the Russian war industry for the rest of the century: "The marriage of

99 Кафенгауз, *История хозяйства Демидовых,* 92–93. Hudson, "Free Enterprise", 185.
100 Hudson, "Free Enterprise," 184.
101 Кафенгауз, *История хозяйства Демидовых,* 93–94., Hudson, "Free Enterprise", 185.
102 Hudson, "Free Enterprise", 186–187.
103 Павленко, *История металлургии,* 74.
104 Hudson, "Free Enterprise", 187.
105 Paul Dukes, *A History of the Urals*: *Russia's Crucible from Early Empire to the Post-Soviet Era* (Bloomsbury Academic, 2015), 22.
106 Арсенина, *История*, 52.
107 Арсенина, *История*, 52.

the state and the Demidovs paid off handsomely for both parties."[108] Their story gives an insight not only into the importance of private enterprise in Russia but also into *patronage and upward social mobility* as well as the nature of the relations between the state and a family business.

State-owned and private enterprise in military-related industries: government policy and the social origin of entrepreneurs

A. Kahan divided the eighteenth-century Russian armaments industry into the following three branches: production of small armaments, artillery and ammunitions, and gunpowder.[109] The centre of the small firearms industry during the Petrine period and, indeed, during the whole eighteenth century, was clearly Tula.[110] In the 1720s this state-owned enterprise produced 20 000 firearms a year, while by the mid-century this figure stood at 30 000 together with another state-owned enterprise taking second place after Tula.[111] As for the production of artillery, the Ural region only began to catch up from the 1730s – despite the efforts of the government it was necessary to stop armament production there after 1710, due to technological problems.[112] The real importance of the region was in its capacity to produce large quantities of good quality iron.[113] In 1720 the Ural region produced half of the total Russian output in iron, by 1725 it was producing 73% of it![114] And in this the Demidovs were the driving force, making Russia the greatest producer of iron in Europe by 1725! Moreover, Russia soon became the greatest exporter of iron in Europe through St Petersburg (and other Baltic ports), which was made possible by the creation of the Ural-St Petersburg water route.[115]

"In spite of the tradition dating from the sixteenth century of state ownership of the armaments industries, there was no uniform policy

108 Hudson, "Free Enterprise", 198.
109 Kahan, *The Plow,* 95.
110 Kahan, *The Plow,* 98, Арсенина, *История*, 58.
111 Арсенина, *История*, 58–59.
112 Е. А. Курлаев, «Формирование центров производства военной и металлургической продукции на Урале в XVII - первой четверти XVIII в.», *Бакунинские чтения* (2018): 53–62. here 59–60.
113 Курлаев, «Формирование центров», 59.
114 Арсенина, *История*, 51.
115 Matley, "Defense Manufactures", 422–423.

of state ownership in the eighteenth century. Political, economic, and technological factors determined the degree of state ownership in each branch."[116] *In those industries which were vital to the production of armaments the government preferred private enterprise to state enterprise.*[117] After Peter's death the rigid view prevailing among state bureaucrats advocating complete state ownership was characteristic of the 1730s, and it was associated with von Henning and Tatishchev.[118] Henning tried to convince the Senate that state-owned ironworks were more productive than private ones – the Senate, however, pointed out that in 1733–1734 the state ironworks employing 35 000 serfs produced 160 000 *poods* of iron while the Demidovs' enterprise produced 300 000 *poods*, with merely 5000 serfs.[119] The Senate also questioned the assertion that the costs of the state ironwork were cheaper than that of the Demidovs.[120]

There were some foreigners among the enterpreneurs, and with regard to the military industry they were mostly active in gunpowder production during the Petrine period: between 1690-1725 they set up four such manufactories at their own expense.[121] In the iron and copper industry, in contrast to the textile industry, with one exception we find no foreigners; the other major difference was that the number of entrepreneurs was much smaller in the metal industry.[122] This latter difference was due to many reasons such as the greater amount of capital necessary for metal production, or the share of state-owned enterprises in metal production which, in the case of pig iron production, still amounted to 10-12 percent at the end of the century.[123]

Peter already tried to promote textile production by establishing factories in St Petersburg, and in 1712 ordered the cloth factories to organize production so that in five years Russia would be self-sufficient in uniforms – although a clear sign of mercantilist attitude, this did not work as a *fiat*.[124]

116 Kahan, *The Plow,* 96.
117 Kahan, *The Plow,* 158.
118 Kahan, *The Plow,* 159.
119 Kahan, *The Plow,* 159.
120 Kahan, *The Plow,* 159.
121 Л. А. Муравьева, «Иностранное предпринимательство в России первой четверти XVIII», *Финансы и кредит*, no. 21 (2008): 78-87. here 85.
122 Kahan, *The Plow,* 131.
123 Kahan, *The Plow,* 131.
124 Matley, "Defense Manufactures", 423–424.

Conclusion

Native private enterprise was able to develop in Russia in war industries alongside that established by foreigners in the seventeenth century, and it did so especially from the early eighteenth century, precisely due to the Great Northern War. That conflict proved to be the turning point in provisioning the army and the newly-built navy with all kinds of supplies, and in the development of private entrepreneurship as well. It is perfectly clear that when it came to producing raw materials and making armaments and war materials, the state could not do without private entrepreneurs, in which sphere the Demidov family's share was enormous. It seems that in the post-Petrine period state ownership of enterprises was much less important for the government than the degree of state control over private enterprises, which it saw as a more effective means.[125]

From 1700 on self-sufficiency, an important aspect of mercantilism, was, of course, one of Peter's main goals in encouraging private enterprise. Kahan called the "mercantilist-type policies" of Peter a "poor man's mercantilism", and he classified him as "proto-mercantilist" due to Russia's backwardness, as the tsar had to try "to create conditions that would eventually allow a mercantilist policy."[126] The driving force behind Peter's policy should not be sought in "philosophical convictions" but rather in his "activist attitude towards the role of government:"[127] in other words, in the concept of the *Police* that I have referred to in my introduction, or more exactly, in *Police á la* Tsar Peter. Pragmatism, perhaps, is a more suitable way to characterize his measures in general in the field of economic policy, which were mostly conditioned by military considerations.[128] The best example of government pragmatism (in the whole eighteenth century) is

125 Kahan, *The Plow,* 159.

126 Kahan, *The Plow,* 236–237.

127 Kahan, *The Plow,* 235.

128 Isaev and Shumilov claim that by the beginning of the early eighteenth century a developed form of mercantilism had appeared in Russia in which balance of trade was important, and the protectionist legislation from 1718 on was intended to defend domestic industry from foreign competition. А. П. Исаев, М. М. Шумилов, «Формирование политики торгового протекционизма в России (XVII – начало XVIII в.)», *Управленческое консультирование*, no. 2 (2012): 19–31. here 28–29. Kotilaine calls Peter's economic policy "mercantilism by necessity", resulting from "military emergency," and also emphasizes the novel "role of the state as the force of economic modernization." Jarmo T. Kotilaine, "Mercantilism in Pre-Petrine Russia", in *Modernizing Muscovy. Reform and Social Change in Seventeenth-Century Russia,* ed. Jarmo T. Kotilaine, Marshall Poe (Routledge 2004), 137–166, here 166.

the history of the Demidovs' family enterprise which, in itself, discards the notion of the all-powerful state operating a so-called pure "command economy," although the command element was a prominent feature of the system, notably in provisioning the navy.

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