# BLACK SEA & THE GRAIN PROVISIONING OF ISTANBUL: IMPERIAL LEGACIES IN RETROSPECT

(Second Draft, January 18, 2002; not to be quoted without the permission of the author)

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*"Going no farther than a good archer can shoot an arrow stands the column of the Orthodox Emperor Constantine; it was brought from Rome, and is made of purple stone. On top of it is a cross, and in the column are the twelve baskets of morsels of bread; Noah's axe is there."*

--Stephen of Novgorod, *Wanderer*, 1349.

*"The Turks do not share the shipping on the Black Sea with any other nation, and all Foreigners are excluded from it. . . The Black Sea is literally the Nursing Mother of Constantinople and provides it with all necessities and foodstuffs such as Grain, Wheat, Barley, Millet..."*

--Henry Grenville, *Report to the English Government*, 1765.

The eminent Rumanian historian of the Black Sea, Georges Bratianu could not help but note how, during the First World War, in February of the year 1917, the defective organization of the bread distribution to the urban populace triggered in St. Petersburg, a series of events that led to the one of the most important revolutions in history (Bratianu, 1938: 179). Where bread remained wanting, the breakdown of law and order was indeed forthcoming. Placed on the opposite side in the war as well as on the other shore of the Black Sea, the Ottoman Empire fared better in this respect. In the eve of the war, Istanbul relied on grain flour imports from as diverse sources as Rumania, Russia and Marseilles. With the declaration of the First World War, on the one side, the Dardanelles was blocked to traffic, and on the other, Russia entered the war, and grain and flour prices in Rumania skyrocketed. In conformity with the pressing demands of a wartime economy, and in the face of bread scarcity, the Ottoman government without delay started experimenting with various ways of dealing with the grain provisioning of Istanbul. A range of policies extending from rigid price controls to purchase permits with strict quotas were tried one after the other. Such policies were put into effect within the framework of institutions that brought together civil, bureaucratic as well as military factions. Furthermore, some such institutions were consciously designed after the German model of war provisioning. It remains to be said that by 1917, Istanbul's population, excluding the military and foreigners, was estimated to be around 710,000 (Toprak, 1982: 267-312)[1].

Given the challenge, eventually a Ministry of Provisioning (*İaşe Nezareti*) was established in 1918. Within the context of the war economy, whereas Istanbul lost access to the Mediterranean, the openness of navigation routes within Black Sea could be maintained for the most part despite periodic Russian assaults. As a result, Istanbul looked to the Black Sea but also to Anatolia for the provisioning of vital supplies. Given this fact, the question remained as to how these supplies would be procured. Of the two options, reliance on the market mechanism proved soon to be a failure, given the sluggishness and actual decline of agricultural supply at a time when the urban demand was drastically increased. The alternative was to resort to the once generic policy of provisioning as would befit a command economy. The military department of provisioning (*Askeri Levazım Dairesi*) assumed responsibility and achieved what to most German authorities looked as an impossible feat. In response, a civil organization led by a faction of the governing Committee of Union and

[1] This figure seems to be an underestimation and leads us straight into a very thorny question of which more will be said later. For the population of the city of Istanbul alone, that is the old city, Pera, and the villages along the Bosphorus, excluding Üsküdar and Kadıköy, we are given an estimate of 875,565 for the year 1897. For the whole *vilayet,* the estimate for 1914-16 is 1,600,000 (Karpat, 1985: 103-4).

Progress was soon to emerge in Istanbul for the task of providing the civil population with basics. This civil organization eventually paved the way to the Ministry of Provisioning. In contradistinction to the military approach based on confiscation and dictating production, the civil faction preferred to work with existing suppliers amidst a framework of regulations. On the whole, not only were the people provided with their daily bread, but also the actual price increase remained comparatively low (İlkin & Tekeli, 2000). All in all, at this critical moment of dire needs, we witness how the Ottoman government involuntarily broke away with market-based policies of providing the capital after almost a century-long experimentation, only to return to its traditional provisioning policy.

The short-lived Ministry of Provisioning experience in the wake of the First World War was strongly reminiscent of the so-called Grain Administration (*Zahire Nezareti)* that prevailed up until the Tanzimat era. The Grain Administration was first instituted in 1793 as a major imperial economic enterprise with an independent budget (*Zahire Hazinesi)* designed in 1795 to financially assist the regulation of the grain provisioning of Istanbul (Cezar, 1978: 133). It remains to be asked why this sudden need was felt for a comprehensive administrative innovation. One good reason could have been a demographic upsurge. However, an authority on this source argues convincingly that Istanbul's population has been largely overestimated and in reality remained approximately 450,000[2]. Using this figure and the grinding capacity of bakeries as a basis, this source estimates the total annual volume of grain trade at about 97,000 tons (Güran, 1998: 16-17). If the demographic factor was truly

[2] Istanbul's population for the period 1520-1535 is estimated to be 400-450,000. A further estimate for the mid-century figure is 450-500.000 (Emecen, 1984: 197). In light of this fact, Istanbul's population as estimated by Güran in late eighteenth century is pretty much the same as what it was during the first half of the sixteenth century. However, Mantran puts the population figure for the end of sixteenth and first half of seventeenth centuries at 600-700.000. It is most likely that Güran's figures somewhat underestimate whereas Mantran's figures overestimate the population for the respective periods. For the same period as Güran, another source by roughly the same methodology of departing from wheat consumption, estimates the population as no less than 1,000,000 (İnciciyan, 1956: 14)! One major complication of the studies of Istanbul's population has to do with the difficulty of delineating of the metropolitan area, which extended well beyond the confines of the historical city.

not at work, then we need to look into the countryside. The combined effect of wartime devastations, decline of law and order, and the rising volume of contraband trade encouraged by the growing price disparity between legal purchases and shadow-price of distant markets must have been to loosen traditional networks of trade and jeopardize the sufficiency of supplies. Therefore, the Grain Administration was designed to address these circumstances.

The objectives of the Grain Administration included the supervision of and assistance to the grain trade and to make sure that grain was first and foremost directed towards Istanbul, to provide storage facilities in imperial depots, and to determine the bread price in Istanbul by taking into account the price trends in the various segments of the grain commerce extending from the countryside well into the bakeries. The Grain Administration was authorized to make large-scale purchases in order to help stabilize the price. With full confidence in the ability of the Grain Administration to fulfill its task, in the year of its establishment, the control over the grain price (*narh*) was lifted and the transactions were left to market fluctuations (Cezar, 1978: 126). However, being a major purchaser, the Grain Administration was soon called in to play an important role in the determination of the price. In effect, the Grain Administration, first, helped synchronize the supply of grain with the demand for bread in the city, thereby protecting the consumers against the vagaries of the market, and second, served to redistribute income in favor of urban consumers and at the expense of the producers in the countryside. All in all, it could be said that the Grain Administration was installed at a time when the traditional mode of provisioning relying on the state-assisted *kapan* merchants could no longer suffice to meet the rising urban demand. Rather than replacing *kapan* merchants in their traditional zone of concentration, that is the Black Sea basin including the Rumelia, the Grain Administration worked in addition, only to expand the supply zone into other areas like Anatolia the output of which was previously diverted to contraband trade.

The Grain Administration seems to have taken as a constant the agricultural output of the countryside and sought more effective ways of channeling to Istanbul the given produce. The concentration of its activities in improving sea borne transportation to Istanbul attests to this fact. If anything, its pricing policy, discouraged rather than encouraging agricultural expansion in the countryside. It was but natural that when tapping the existing resources more efficiently could no longer help meet the rising demand, in order to overcome the supply bottleneck, one would have to overhaul the whole artifice and shift to the market mode of provisioning as would be the case after 1839. At this latter date, the brief history of the Grain Administration would come to an end. However, this would be no coincidence as the Anglo-Ottoman Commercial Treaty of 1838 would inaugurate a new era where monopolistic practices (*yed-i vahid)* concerning wholesale purchases would be prohibited and the internal trade of the Ottoman Empire, much to the resentment of the Ottomans also including the grain trade, would be opened up to foreign merchants. Furthermore, bakers would be allowed to purchase grain directly from the foreign merchants if they wished to do so (Cezar, 1978: 131-32). Before this major policy shift, however, changes that would accelerate this process were already under way. We have good evidence to confirm that the Grain Administration resorted to purchasing Russian grain as of 1805 in order to replenish its stocks in Istanbul. Previously, Russian grain was not purchased because it was found too expensive, meaning that the urban population could be provided by other sources alone and at better prices (Güran, 1998: 19). Once the importation of Russian grain started, however, thanks to the tacit approval of the Russian authorities, even the Turco-Russian War of 1806 could not interrupt the ethnic Greek shippers trafficking between the then nascent port of Odessa and Istanbul (Paskaleva, 1968: 64).

It goes without saying that, the Ottoman Empire being an agrarian empire, for all purposes, the grain economy was the backbone of economic and political life (Güçer, 1964). Against this background, within the overall framework of Ottoman economic policy, provisioning of urban centers was one of three pillars, the other two being fiscalism and traditionalism, on which the entire political economy was founded (Genç, 2000). It is now well known that in general, the Ottoman economic policy was accommodating to times and circumstances, and therefore selectively interventionist, rather than being dogmatic and comprehensively directive (Pamuk, 1999/2000). There are two specificities at work, as far as the grain provisioning of Istanbul is concerned. The first specificity relates to the sheer size of Istanbul as a pre-modern metropolis as well as its exceptionally advantageous sea borne access to a vast region. Consequently, Istanbul was distinguished from other Ottoman as well as European cities of the period. Therefore, it would be appropriate to conclude that the specific provisioning policy of Istanbul was more the exception than the rule during the period under study. The corollary is that we expect to find a better fit between the provisioning schemes of lesser Ottoman cities and their European counterparts. The second specificity originated from the grain being a strategic commodity, related to the subsistence of the urban populace on the one side, and the threat of riots against the political order on the other. Given this characteristic, in light of our ongoing research (Özveren & Yıldırım, forthcoming), we think that provisioning policies were much more rigorously enforced with respect to grain than with respect to other items, and the state resisted as best as it could against yielding to the pressure towards a market mode of provisioning. Once again, therefore, we are dealing with an exception rather than the norm of economic practice.

With the threat of bread riots hanging above the authorities (Alexandrescu-Dersca, 1958: 15), as far as provisioning is concerned, the sovereignty of the urban consumer, especially if s/he were residing in the capital, counted supreme. To this end, the Ottoman authorities did what they thought they should in accordance with the exigencies of the times. Before reaching to the consumer, however, grain went through various phases of production and distribution, linked in a chain, to which the state intervened in conformity with the provisioning scheme. This chain consisted of numerous economic activities carried out by a variety of agents and also covered a vast geographical space. Furthest from the consumers' end was the stage of cultivation and harvesting of grains. The produce was then subject to transport, which consisted of two sub-stages. It was delivered, overland or by river navigation, to seaports where it was briefly stored, only for further shipment to Istanbul. Overland transportation was much more expensive than river borne and sea borne transportation. Therefore, it was best to minimize overland transportation by targeting nearest ports. Sea borne transportation, while more economic, was subject to a number of obstacles such as restriction of navigation to a part of the year, periodic lack of favorable winds during the navigable seasons, and the widespread practice of piracy which made escorts and caravan navigation necessary (Güçer, 1964: 28-36). Upon unloading in Istanbul, the discharged grain was carefully recorded and stored in major storage facilities. Istanbul had to keep in storage a ready supply that could refurbish the city over a period of 4 or five months during which navigation in the all-important Black Sea was suspended (Alexandrescu-Dersca, 1958: 26-27). Finally, grain was distributed for the sake of consumption. This final stage involved a variety of operations such as milling and refining, weighing and inventory, price determination, establishment of distributional priorities, and the enforcement of actual marketplace controls (Murphey, 1988: 221). The two authorities, that is, the *kadı* and the *muhtesib* (general inspector of markets), together with their appointees, saw to it that the rules and regulations were properly applied, and the speculative *madrabaz* (*grossistes*) as well as retailers prone to exploiting to their own advantage the local circumstances were shortcircuited within the context of the provisioning policy (Mantran, 1962: 190). Once the grain was unloaded in Istanbul, the scope of state's intervention increased enormously. However, in the course of time, state involvement in shipping, overseas storage, and even in cultivation also tended to increase. In order to make the whole provisioning policy more effective, the state would regulate shipping, improve storage facilities in transit ports, and occasionally distribute seeds in order to protect cultivators from the effects of prices and to maintain a given level of output. Nevertheless, during the period under study, it never occurred to the state to go as far as to overhaul the entire provisioning regime in order to give producers market-based incentives *via* price signals that would raise productivity as well as the level of output, *pace* the Physiocratic doctrine (Miller, 1999: 48). Even the treatise of the reform-minded Tatarcık Abdullah Effendi dwelled on the ways of improving rather than replacing the given regime that faltered especially in its distant overseas links. He insisted on the reinforcement of Ottoman rule over the distant provinces that would secure supplies and their strict regimentation towards Istanbul instead of other cities of the Ottoman Empire as the way out of this impasse (Ergin, 1995). The entire Ottoman provisioning policy was based on the assumption that, on the whole, the lands in question either produced or were close to producing enough grain to feed Istanbul. The question was how best to channel this produce to the capital.

The mid-eighteenth century picture of the provisioning of Istanbul is a most useful one for our purpose of specifying the structure of the Ottoman provisioning. It is a date that corresponds to the pre-Küçük Kaynarca Treaty era when the Black Sea still remained an exclusive Ottoman reserve (Alexandrescu-Dresca, 1958: 17) and the classical mode of provisioning was at its most mature form. Fortunately, an authoritative study helps us get this picture with a sound perspective as well as rich details. For the year 1758 (1171), a total of 7.070.000 kiles of grain were delivered to Istanbul. 91,4% of this was brought by private capital whereas the remaining 8.6% was provided directly by state enterprise (Güçer, 1950: 410). One cannot help getting the impression that the state, incapable to come up with the finances to carry out such a massive volume of trade, must have responded by reserving itself a strategic share that may have gradually settled to this critical minimum in the eighteenth century (Mantran, 1962: 92). Consequently, private ventures accounted for the overwhelming proportion of the grain trade. This does not mean to say that there was free trade. Quite the contrary, activities of private enterprise took place within boundaries closely supervised and monitored by the state. As a matter of fact, the state chose to decide which supply zones would be obliged to channel their produce to Istanbul. However, once such a decision was taken, the private merchants were allowed to function according to the conventional trade routines. As such, the provisioning trade was highly regulated. Nevertheless, the state chose to oversee and regulate a system of private enterprise rather than replacing it with its own networks of procurement. Pragmatism of the Ottoman economic policy prevailed with a high degree of flexibility in an area, which was of utmost priority from the political economic point of view.

From the statistics that belong to the year 1758, we can see that the Black Sea ports including the Danubian ports, together with the ports of Marmara provided the grain of Istanbul under normal circumstances. In addition, the state functionaries concentrated exclusively on the Aegean and Rumelia to procure additional supplies for precautionary stocks. Such grain was dispatched with local ships when available, with naval ships occasionally on their way back from the Mediterranean, or with rented ships of foreign fleets when essential, and unloaded only to be stocked in special storage facilities at the imperial arsenal. It did not enter into the accounts of the Unkapanı, which practically functioned as a grain bourse for the day-to-day provisioning of the city. Direct government involvement and regimentation extending well into local purchases and transportation were exclusively spared for this secondary geography where routine did not prevail and the likelihood of smuggling and cheating was high.

According to the same source, whereas for 1758, the Danubian provinces supplied 1.110.000 kiles of wheat and 490.000 kiles of barley, the Black Sea ports supplied 2.164.000 kiles of wheat and 459.000 kiles of barley. In comparison, the neighboring province of Thrace along the ports of the Marmara Sea provided 1.800.000 kiles (wheat and barley combined), while only another cargo of 400.000 kiles wheat and barley combined was shipped from the Mihaliç port of the Karesi district (Güçer, 1950: 406). The implication of these figures is clear. The provisioning of Istanbul counted first and foremost on the Black Sea as a supply zone. This is why the Ottoman authorities were highly disturbed by even a tentative Austrian encroachment into the grain trade of the Danubian principalities during the first half of the eighteenth century and did their best to prevent diverting of supplies towards central Europe (Alexandrescu-Dersca, 1958: 19). As long as the Ottoman monopoly over this geography could be ensured, private ventures could be relied upon for the procurement of supplies on a routine basis.

The Ottoman authorities did their best to exploit the resources of the Black Sea more effectively. They developed a practical system of forecasting the likely grain produce of the individual Black Sea and Danubian ports and dispatched ships in proportion to estimated figures. Because of this regime of procurement, the quotas assigned to each port and the supplies thereof remained constant over the years as long as special circumstances did not obtain. Private shippers were contracted in accordance. Along the Black Sea, the ports of

Varna, Sözebolu, Burgaz, Balçık, Kavarna, Mangalia, Köstence were active in channeling the produce of Bulgarian and Dobruca provinces. The grains of Wallachia were shipped from the ports of Yerköyü (Giurgiu) and Rusçuk, while the Moldavian wheat came through Galatz. Further north, Akkerman and Ozu (Oczakov) shipped the produce of Bucak. In addition to these ports which served the Danubian plains, that is the "nursing mother of Istanbul", Istanbul received regular grain shipments from Crimea, until its loss in 1783, by way of the ports of Kertch, Caffa, Balaklava, Bahçesaray, Güsleve (Köslov), Azov and Taganrog (Alexandrescu-Dresca, 1958: 18).

Given the length of distances involved, the short duration of the navigation period because of hostile climatic factors, and the large number of small ports along the Black Sea, efficiency in the regime of exploitation of this resource was of utmost importance. It was here that the state authorities entered into the picture as bookkeepers as well as coordinators of information of vital importance for the private merchants who undertook large-scale ventures in combination, but without necessarily a monopoly of trade. When it came to the ports of Marmara, the same regime was not enforced because round-the-year navigation was easier and a more flexible mode of procurement could be afforded. As for the Aegean where an entirely different set of rules applied, in addition to state functionaries who purchased grain on account of the state, individual merchants who wanted to cater grain to Istanbul had to obtain trade permits in advance. Such permits were good for one shipment only. Their records were closely supervised to make sure that they did not engage in smuggling activities. This segment of provisioning was the most closely watched of all. In short, the Ottoman regime carefully segmented the economic space and designed for each segment a set of appropriate policies and institutions. If there was then no market in the modern sense, in its stead there was an economic space. This economic space was partitioned in such a way that the advantages nowadays associated with segmented markets could be fully exploited within the context of provisioning policy.

At this point, a comparative assessment of Istanbul's provisioning is in order. One can well make use of the term, the "catchment area" (Braudel, 1982: 188) in order to accomplish this task[3]. Under normal circumstances, the grain provision of cities came from three concentric circles. The first circle was the immediate zone of local trade, the produce of which could be delivered within a day to the marketplace. The second circle was the regional hinterland on which an urban center relied on a regular basis. The third circle was the domain of long-distance trade, which came into the picture at moments of dire need. In case of Istanbul, the first circle that encompassed the immediate rural belt of the city was quite poor because of soil quality and lack of arable lands, and as the demographic size of the city expanded, the first circle became even less and less of importance. In a similar vein, long-distance trade, which could be broken up into two categories, became of less importance. Traditional annual tributary Egyptian shipments are a case in point. But the other component, such as the supplies procured from the Aegean in order to counteract emergency situations became a persistent policy where the state played a central role. In contradistinction, the regional zone extended well beyond a circle and into a geography the distance of which would elsewhere qualify easily as a long-distance zone, thanks to the uniquely exploited privilege of the Black Sea basin. In other words, what land had deprived was abundantly provided by the sea. Thanks to a number of specific policies and institutions, the Ottomans came to terms with what Braudel, in his discussion of the French case, called "the tyranny of distance" (Braudel, 1984: 316). In this context, it should be emphasized that the Ottoman integration of a vast economic space for the purpose of regular exploitation was in effect a simulating of

[3] In a study of the provisioning of Paris, the concept of "supply crowns" or "provisioning crowns" is used to communicate the meaning of zones. Furthermore, three such circles are identified (Kaplan, 1984: 88-91).

the future market integration process as witnessed in the European economy. It has been argued that the integration of markets created the favorable environment for the overcoming of crises due to local circumstances that necessitated tight regulation in the first place (Perrson, 1999). In a way, the Ottoman practice was a second-best solution that helped reap such benefits of scale at a time when the spontaneous integration of markets was yet out of question.

Given the primacy of the Black Sea for the provisioning of Istanbul, it is but natural that the navigation of this sea, optimally after harvest time, that is, between mid-August and the end of September, posed the most important single obstacle to the Ottoman policy. It is therefore prompt to agree with the thesis that the shipping link of the grain-chain was where the most severe and chronic bottleneck was faced (Murphey, 1988: 221-22). As noted by the late eighteenth-century reformer Tatarcık Abdullah Effendi, there was a shortage of ships at hand. Furthermore they were of poor quality and therefore of short life span. Because the Ottomans were not inclined to mercantilist measures, by way of which shipping demand could feed back upon shipbuilding *via* protectionism, as exemplified by the Dutch example and the English Navigation Acts. Within this constraint, Ottoman authorities had to come up with a better way of using the available fleet. Major problems encountered within the transportation stage included, the prevention of diversion of cargoes as well as smuggling, the maintenance of state-owned ships for grain transport, the regulation, hiring and commissioning of private ships, synchronization and timing issues, and the negotiation and enforcement of fair freight rates (Murphey, 1988: 222). As of the mid-eighteenth century, the Ottoman authorities came to terms with this challenge by way of a major institutional innovation. Before this date, the Ottoman policy of provisioning had already developed the major institutions of storage and distribution as well as inspection within the city walls.

However, as of this date, the authorities designed and put into effect a shipping network by way of which demand for and supply of grain could be matched with greater efficiency by taking into consideration the systemic implications of the constraints originating from the suspension of Black Sea navigation during long and stormy winter months. This innovation was the final touch that squared off the classical Ottoman provisioning policy.

Even so, even at its prime, the classical Ottoman provisioning policy stood apart from its counterparts elsewhere. We dwelled upon the centrality of shipping above. In virtually everywhere, shipping is an activity that involves enormous risk-taking. Therefore, shipping is inextricably linked with the genesis of the institution of insurance. As a matter of fact, European history points out to, first the spread of shares diversification among ship owners so as to reduce risks, and then, the formation of insurance companies as a consequence of which ownership could be concentrated and ship sizes could rise. Within the Ottoman Empire, however, whereas share diversification and fairly sophisticated partnership mechanisms existed, the institution of insurance, a must for capital concentration, remained conspicuously absent (Çizakça, 1999). In its stead, from a different perspective, governmental authorities did their best to ensure that sufficient supplies of grain would be procured to meet demand. To this effect, a number of policies were adopted. For shipment contracts, merchants were collectively held responsible (Güçer, 1950: 399) so that, in case one failed to meet his obligations another would be forced to compensate for him. However, the overall effect of such a policy would not compensate for example, the loss of a merchant whose ship could have sunk because of bad weather and thereby who could not abide by his contract. In contradistinction, such a policy would serve as insurance for the general welfare of the urban consumers. Another policy designed to secure ample supplies was to force bakers to maintain flour stocks in their shops on a regular basis subject to inspections[4] (Murphey, 1988: 229). This policy did not only provide a cushion for temporary shortages (up to 2 months!) but also shifted some storage costs from the central authority to producers. Combined effect of such policies was to ensure the welfare of urban consumers at large, rather than protecting the interests of merchants *per se*.

The roots of this classical Ottoman provisioning policy went as far back to the second half of the fifteenth century. Sultan Mehmed II then initiated an active policy of urban development by forcefully resettling people into the newly conquered and highly depopulated city. This policy of demographic and urban expansion went hand in hand with a policy designed to secure the day-to-day provisioning of the city. It was but natural that the Ottomans turned their attention to the Black Sea trade which they were increasingly determined to exploit exclusively for the profit of Istanbul. Successive conquests of Sultan Mehmed II along the Anatolian coastline were the early manifestation of the desire to convert the Black Sea into an Ottoman lake. Over a short period of time, the share of Ottoman navigation in the Black Sea as witnessed in the records of the port of Caffa concerning ship owners, captains, and merchants increased so much so as to marginalize any foreign presence to a symbolic size (İnalcık, 1995: 113-20). Caffa, as the port of Crimea, was the gateway for export of grain to Istanbul since the Byzantine times. Within less than a century, the Ottoman domination over Moldavia and Wallachia was attained, ports along the coastline conquered and streamlined in accordance with Ottoman objectives (Berindei & Veinstein, 1987), and with the annexation of Southern Bessarabia (*Bucak)* in 1538, the Black Sea had become an Ottoman lake. It is no coincidence that Istanbul's spectacular growth from a city of 30-

[4] A classic source on the provisioning of Paris referred to the King as the "baker of last resort" (Kaplan, 1984: 24), thereby comparing the King with the Central Bank. In a similar vein, just as the Unkapanı grain exchange was akin to a "stock exchange", we can also refer to the above obligations of bakers to keep flour stocks as "reserve ratios".

50,000 souls in mid-fifteenth century to a city of over 300,000 population as early as the first half of the sixteenth century depended first and foremost on the ability to attract the flow of necessities such as grain, most of which came from the northern shores of the Black Sea (İnalcık, 1979: 75). Although no outright prohibition of European navigation on the Black Sea, a legacy of the late Byzantine centuries, was announced, frequent shortages and famines compelled the authorities to bring it practically to a halt during the second half of the sixteenth century (İnalcık, 1979: 77, 110). The fortunes of Istanbul and the Black Sea were inextricably linked. As a consequence, the Classical period of the Ottoman Empire implied for Istanbul's provisioning a virtual monopoly of the Black Sea, as we saw above, a heritage that would safely be bequeathed to the centuries to follow.

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What the Ottoman authorities thereby achieved was nothing but an ancient Byzantine dream come true, albeit too late. A historian of the Byzantine Empire insisted that, the new empire of the East was intended from the outset as a *thalassocratie*, that is, a domination of the sea. In order to master and possess the entire coastline of this interior lake of the eastern Mediterranean called the Black Sea, to be forever able to provision his city from its resources and to be able to survey from this strategically central commanding height the many provinces of his vast empire, Emperor Constantine had decided to set up his new capital here (Iorga, 1939: 58). When the city was first founded, its institutions were modeled after those of Rome. To encourage the urban and demographic growth of the city, active policies were pursued by imitating the Roman example. A major continuity from Rome to Constantinople was witnessed in the systematic large-scale free distribution of bread to the poor and the needy. As early as in 333 A.D., Constantine had inaugurated daily bread distribution rights known as *annonae populares*, and the original number of recipients was 80,000. In addition, in order to stimulate urban growth, anyone who built a house in the city was entitled to a bread ration (Jones, 1973: 696-97). Consumers were subsidized by way of the strictly controlled grain price. Among the cities of the East, the capital was joined by Alexandria and Antioch as far as benefits from regular government grain subsidies were concerned (Treadgold, 1997: 139).

The state did not only intervene in the regulation of grain trade and the distribution of bread to the poor and needy, but also in the successive minute links of the grain chain. For example, the bakers were organized in a carefully crafted guild (*corpus mancipum*) and were expected to furnish bread uninterruptedly. They bought their grain directly from the stores of the prefecture (Miller, 1969: 61-62). The city's bakeries were either public or private. There were twenty or twenty-one public bakeries, and these were large-scale establishments, each of which could work some 500 *modii* ( 1 *modius* = 9 litres) a day, and supply about 4,000 people. In addition, there were some 120 private bakeries, the scale of which must have been no less, so as to supply the rest of the population (Jones, 1973: 701). There were strict regulations concerning where and how far from one another the bakers could set up their bakeries in order to reduce fire hazards (Miller, 1969: 70-71). Whereas small-sized mills were allowed within the city walls, water-powered mills designed for mass production were located in the Thracian suburbs (Miller, 1969: 76).

Precisely because an imperial capital with a sizeable bureaucracy and standing army was intended, the authorities had to make sure that sufficient grain could be continuously supplied to the city. Around the year 400 A.D., population of the people within the city walls was already about 500,000 (Teall, 1959: 92). A city of this size could not count on local or even regional supplies grain for its day-to-day provisioning. Therefore, the first emperors looked to a distant supply zone the produce of which could help sustain the bread policy of the imperial capital. Following the Roman precedent, they did not hesitate for long to direct the produce of Egypt to Istanbul. In fact, the importance of Egypt's role began as early as with the first Constantine (Teall, 1959: 89). The Prefect of the East made sure that the tax of Egypt in the form of corn be shipped to the capital. By the time of the reign of Justinian (527-65 A.D.), annual Egyptian shipments amounted to 8,000,000 *artabae* (1 artaba = 30 litres) or 27,000,000 *modii*, a magnitude out of which a population of some 600,000 people could be fed (Jones, 1973: 698). During the most glorious period of its history, the city was fed largely on the Egyptian grain without which regular bread distributions could not be sustained.

Already in the times of Justinian it was clear that the produce of Thrace could not suffice to feed the population of the imperial capital even under the best of circumstances, that is when the so-called barbarians did not raid this province, and therefore the mastery of the seas and the subsequent "liberty" of Byzantine navigation in the Mediterranean were preconditions for the continued provisioning (Iorga, 1939: 191). When Constantinople remained the city *par excellence*, it was nourished first and foremost with the Egyptian grain that came *via* the eastern Mediterranean. Without this grain, a city of this size could not have been built or sustained for long. Therefore, the original intention of provisioning the city from the Black Sea was quickly dropped once the early emperors saw that greater quantities of grain were readily available in their Egyptian dependency. Egypt was hence a much better substitute for the role originally designed with the Black Sea in mind. Given this substitution, the city could also grow much larger than it would have been the case had it relied on local and regional sources of grain supply. Thanks to the readily available Egyptian grain, the imperial capital was overgrown and overstretched beyond its capabilities to become a Second Rome at a time when the first had sunk into oblivion. The vulnerability was partly offset by the glory but waiting to display itself in the first occasion. When the hour struck, the city's population suddenly dropped by some 200,000 deaths due to the disastrous plague, from 375,000 in 542 A.D., and must have leveled about 250,000 in the year 610, only to drop further to some 100,000 in 780 (Treadgold, 1997: 279, 405).

We do not have over-time reliable measures of the Egyptian grain that was annually shipped to the imperial capital. However, we can have a rough sense of the magnitude of these shipments by looking at what happened once the precious Egypt, the gift of Nile as Herodotus called it, slipped from the hands of the emperors. When the Persians occupied Egypt in 618, traditional bread distribution in the capital was halted (Bratianu, 1938: 135). End of the grain dole came thus in 618. By then, it became quite clear that the regular, reliable, and predictable Egyptian shipments had been "absolutely essential" for the capital (Teall, 1959: 91) during the past three hundred years. Worse was to come before the mid-century with the total surrender of Egypt to the Arabs for good. The protracted crisis that set in at least over the seventh and eight centuries could not be offset by search for alternative supply zones in the Mediterranean, that is, in North African coastline and Sicily, both because these supplies were insufficient and these granaries were also conquered by the Muslims one after the other.

Out of this impasse, there was one way out, and that way was a combination of two parts, and to work it out properly took a long time indeed. On the one side, the Byzantine Empire had to cut down its demand for grain drastically. This meant reducing the size of the urban population. The assignment of the imperial army to provincial garrisons was only one element of this project of decentralization. On the other side, as of the events of the seventh century, Byzantines were forced to rely increasingly on local and regional sources of grain supply from the natural hinterland of the city in Thrace and Anatolia as a substitute for the long-distance zones of procurement (Teall, 1959: 94). Thus the Byzantine Empire, which right to the end lived with the political and ideological pretense of a maritime empire sworn to reconquer its lost territories (Ahrweiler, 1966: 394-95), was forced to come to terms with the reality, and gradually became a grain economy. Increasing supply could not be achieved in the short term as there were no major advances in agricultural technology. However, in the long term, given the readjustment of land-labor ratios and the urbanization, or rather the de-urbanization, rate of the population, advances could be made in this direction. The combined effect of the two processes was a sizeable reduction of the imperial capital and its increasing reliance on local and regional supplies for its provisioning policy.

By the beginning of the eleventh century, after a revival that amounted to no less than a doubling, the capital's population was still about 200,000. Reconquered lands in Thrace and Greece were brought into cultivation just as the less populous parts of the newly acquired Balkans such as Bulgaria (Treadgold, 1997: 571-72, 578). In spite of all these restructurings under way, the traditional policy of the state monopolistic regulation of grain trade continued well into the ninth century and afterwards. High officials intentionally manipulated stocks and the grain price so as to benefit from their key role in the grain trade. During the times of Nicephorus II Phocas (963-69), such profiteering was perhaps at an all time high. Because of ingeniously engineered speculations, the grain price rose so high, that we are told, an old man applied to a military recruitment office in order to be conscripted so that he could secure a daily allowance of bread. When the Emperor asked him why he wanted to join the army at this old age, the wise man answered: "I feel so much better and stronger now as would befit a good soldier than when I was young. Then, I used to hire two donkeys to carry home the grain I would purchase with a gold coin. Now, thanks to the effect of your reign, I can carry on my back all the grain I purchase with twice as much money!" (Levtchenko, 1949: 173). By the end of the tenth century, Constantinople depended so much on exports from, as well as through, the Bulgar kingdom that a victory of the Bulgar king over his adversary who had imposed a commercial blockade "produced a new era of abundance of the 'necessary things' in the capital (Teall, 1959: 118). At the end of this long and painful period of adjustment and revival, there nevertheless emerged an Istanbul which was, not only a pale image of what it had once been, but also quite similar to, and only slightly better than, the few other major cities of the medieval era as far as the size of its provisioning catchment area was concerned. If its links with the Black Sea world separated it from other medieval cities, its relationship to the nearby port of Rodosto made it resemble its counterparts. However, Constantinople imposed a virtual trade monopoly of the traditional sort over the sources of Rodosto that displaced whatever there was of a seemingly spontaneous local market before (Bratianu, 1938: 143-152)

Somewhere along the above-discussed transformation, we have good reason to suspect, that the basic diet of the population also changed under the pressure of grain shortage. Sources often cite grain, fish, and vegetables as the three dietary staples of the urban dwellers (Teall, 1959: 98-99). When compared to the Ottoman dietary staples, fish plays a major part in the Byzantine era. Even at the height of Ottoman wealth and prosperity, the role of meat, which can be taken as a good substitute to fish, probably approached in no way the importance of fish in the Byzantine diet of city dwellers. Therefore, it would not be wide off the mark to conclude that one of the ways in which the denizens of the capital responded to grain shortage was to substitute fish for bread. More often than not, the fish in question was dried and salted fish. In light of scant evidence, if this assumption nevertheless seems plausible, then we can further venture to suggest that much of this fish must have originated from the Black Sea. Therefore, once their grain supply was severely threatened, Byzantines sailed off from the Bosphorus well into the Black Sea to exploit its rich fisheries. At a time when the security of trade and cultivation was not yet achieved along the coastal plains of the Black Sea because of waves of nomadic conquests, the sea must have remained immune from such dangers. We have further grounds to infer that the Black Sea remained a closed lake and therefore safe harbor for the Byzantines from the fact that their navy was exclusively oriented towards the Mediterranean (Ahrweiler, 1966: 390). Therefore, the first Byzantine turn to the Black Sea for the want of provisioning was not a search for grain but for grain substitutes. However, this orientation was indicative of what would come up on the agenda once the dust of raids and conquests would settle.

The Byzantine orientation towards to Black Sea as a supply zone of grain for the provisioning of Constantinople emerged within the context of the challenge posed by the lamentable loss of Egypt. We have referred above to Egypt as a 'substitute' for the Black Sea, as far as the original projection of the city was concerned. Egypt was in fact a better substitute because it was 'civilized' thanks to its ancient history, whereas the exploitation of the Black Sea basin required first, conquest, the introducing of law and order, and thorough *colon*ization, that is, a costly endeavor. Once the better substitute disappeared from the scene for good, however, it was but natural that the Byzantine interest should shift to the originally targeted area. Albeit interruptions, Byzantines developed close ties of grain dependency with the Bulgars of the Danube from as early as the seventh century onwards. Evidence suggests merchants, engaged in grain trade, traveling back and forth between Constantinople and the Black Sea ports of Anchialus and Mesembria (Teall, 1959: 117-18). It would be these ports that the Byzantines would insist on holding as their last fortresses along the Black Sea, when in 1424 they sought peace with the Ottoman Sultan (Treadgold, 1997: 792). The same cannot be said, however, of the northern shore of the Black Sea where the Byzantines had an outpost in Cherson, the gateway to Crimea, that rebelled against the central authority under the instigation of the Khazars in 710 only to bring down a dynasty (Ostrogorsky, 1969: 144). Crimea has been famous for its grain produce, yet Cherson was then the center of a grain deficit area. In a similar vein, within the context of the developing Russian trade with Constantinople as of the ninth century up until the twelfth, no evidence of grain has yet been found (Teall, 1959: 119; Balard, 1985: 65). However, transport and trade links with Russia had substantially increased as Russian merchants and monks from Novgorod as well as elsewhere, traveled back and forth, and established a colony during the last century of the Byzantine Empire (Majeska, 1984: 17, 49, 160, 178, 190). There is no reason to assume that grain should not by then become an article of trade.

The demographic recovery and expansion of Constantinople's population continued throughout the eleventh and twelfth centuries, so much so, that Europeans, who visited the city shortly before the Latin invasion in 1204, marveled at its size, wealth and metropolitan layout. First, the Seljukid advance into Anatolia shook this *pax romana*. Then the Latin interregnum abruptly brought this era to an end. After the Byzantine restoration in 1261, the city never regained either its former size or its former empire, nor was it any longer the most important single marketplace in the Mediterranean world. At best it had attained a population of about 100,000 when, instead of further recovery, the so-called Black Death *en route* to Europe in 1347, arrived by way of the Black Sea, from the Genovese colony of Caffa in Crimea. It was this same Caffa from where, since the last decades of the thirteenth century, caravan navigation setting sail in mid-August was being organized in order to dispatch the grains of the fertile plains of southern Ukraine (Balard, 1970: 381-82). During its last century, the population of the capital dwindled to about 50,000 (Treadgold, 1997: 773, 806, 840). Right across the Golden Horn, the district of Galata hosted a large Genovese colony, the trade and wealth of which increasingly outrivaled the ancient capital as reflected in the customs receipts of 200,000 to 30,000 monetary units, respectively (Heyd, 1975: 558).

Having lost its empire, in fact more, as even its hold over Thrace and Asia Minor was lost, the city was chronically short of vital supplies. During the centuries long recovery and adjustment after the loss of Egypt, Constantinople had turned to local and regional supplies. Among the many supply zones were then western Anatolia. Produce of the fertile Aegean plains had been channeled to ports like Ephesus for shipment to the capital (Teall, 1959: 125-26). Now these territories were also lost. Moreover, the produce was finding its way to other grain-deficient localities such as Crete and Venice (Zachariadou, 1983: 163). Under these circumstances, Constantinople was locked in a difficult situation. With its then resources and access to the Black Sea grain with the mercy of the Genovese merchants, it could at best sustain some 50,000 people.

Michael VIII Palaeologus (1259-61-82), in his struggle to recapture the throne of Constantinople from the Latins promised the Genovese the exclusive privilege of trading in the Black Sea in return for their support, as well as ousting their archrivals the Venetians from trading in his territories. Some decades later, the same emperor banned Genovese grain exports to other destinations than their homeland. This was not because there was a shortage of grain in his capital. The motive behind this move was to curtail the supplies of his enemies rather than the profits of the Genovese. On the other side, Venetians were obstructed by further means in taking a share of the grain trade of the Black Sea. Because Constantinople's provisioning relied to a large extent on the grain supplies of the Bulgarian littoral, Michael VIII was determined to affirm his sovereignty over the area. Not only Vitzina but also the ports of Mesembreia and Anchialos became major outlets for grain trade. Successive emperors tried their best to retain their control over this strategic region as well as regulating the sale of Black Sea grain within their territories (Laiou, 1985: 139). On the whole, this period had immensely helped improve the position of Genovese at the expense of the Venetians in the traditional heartland of the Byzantine Empire at a time when the capital was still the major entrepot for the grains of Bulgaria, Thrace, and Crimea (Heyd, 1975: 482, 490, 523, 542). During the campaign of the Venetians against the Genovese in 1328, a number of Genovese and Byzantine merchant ships were taken as hostage to secure a ransom. Upon release of these ships, the urban population was relieved to see that their cargoes of grain and salted fish originating from the shores of the Sea of Azov and the deltas of the Don and Kuban rivers had survived intact. At a time when the wheat-growing fields of Thrace and Macedonia were destroyed by incessant hostilities and warfare, the helpless capital had turned more than ever to these supply zones on northern littoral of the Black Sea (Heyd, 1975: 544). However, the era of 1325-28 marked also the disintegration of the Byzantine monopoly over the Black Sea grain trade as well as the control of Constantinople over the grain exports to the West (Balard, 1985: 70). The Genovese had the upper hand in the trade of the Black Sea grain. However, during the second half of the fourteenth century, in the wake of Tatar hostility, they could no longer control it all from their prosperous colony in Caffa. Subsequently, grain trade was diversified to a number of ports along the Black Sea (Laiou, 1985: 143). This did not mean that Caffa lost its importance, quite the contrary, merely a number of new ports were added to the hierarchy over which Caffa subsided right until 1453. Contemporary authorities insisted that the grain of Caffa originating from the Russian plains was the best among the produce of Black Sea ports. In addition, ports to the east of the

Caffa-Sinope axis such as Matrega, Mappa, Lo Fasso (Batum), and Savastopoli were also frequented by Genovese merchants (Balard, 1983: 42).

During its last centuries, the Byzantine Empire was caught in a *cul-de-sac*. Given the Ottoman encroachment, grain-producing farmlands were lost before the urban centers. This not only deprived the capital from vital supplies but also tilted the power in favor of merchants at the expense of landlords. But the over-regulation of trade had always discouraged native merchants from long-distance trade, which had fallen, as a result, into the hands of Italians in general, but especially the Genovese and the Venetians in particular. Therefore, Constantinople became increasingly dependent on foreign merchants, but especially the Genovese for the supply of its grain from the Black Sea world (Bratianu, 1938: 168; Balard, 1985: 78). First and foremost, the grain supply came from the many ports on the Bulgarian coastline such as Varna, Mesembria, Anchialos, and Sozopolis. Italian merchants active in these ports supplied Constantinople with grain on a regular basis (Heyd, 1975: 591). To the further north, famous for its abundant grain, Lycostomium was also much frequented by Italian merchants. In its environs, there was the small grain port of Moncastro, better known by its later name, Akkerman, also inhabited by the Genovese in the 1440's (Heyd, 1975: 595-96). The Genovese merchants had therefore increasingly monopolized the Black Sea grain trade. Whether or not they would direct it to Constantinople was another question. More often than not, the Black Sea grain found its way to Italian markets. As a matter of fact, already during the fourteenth century, Caffa contributed some 10-15% annually to the provisioning of Genoa while also sending substantial amounts of grain to Constantinople as well as Trebizond (Balard, 1983: 42). In any case, because the population of Constantinople had shrunk considerably, it could only demand a decreasing portion of an otherwise expanding Black Sea grain trade. By the time the Black Sea had become a major grain-abundant zone, Byzantine Constantinople was no longer in a position to benefit from it.

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To this day, a major debate of Ottoman historiography initiated by a now-classic study (Köprülü, 1986) concerns the relationship of Byzantine to Ottoman institutions. This intellectual problem is of immediate relevance to the discussion of the Byzantine and Ottoman legacies in the grain provisioning of Istanbul. It is all the more important that, especially within this context, the transition from Byzantine to Ottoman institutions was direct and not mediated by a Seljukid intervention. On the whole, there exists a notable tendency particularly among Rumanian historians (Bratianu, 1938; Iorga, 1939; Alexandrescu-Dresca, 1958), also endorsed by Robert Mantran, (1962: 182) in favor of a continuity thesis. Köprülü himself acknowledges strong parallels yet he hesitates to interpret these as continuities until further evidence is disclosed (Köprülü, 1986: 196). In light of the above discussions, and in conjunction with this historiographical debate, a number of points need to be emphasized. There seems to have been a line of continuity from the Byzantine to the Ottoman Empires, a continuity that can be traced back to the practices of the First Rome (Jones, 1973)[5]. This continuity is most manifest in the nature of provisioning policy, however it can also be traced back to a number of institutions of provisioning, such as the mechanisms and officials in charge of market inspection and the bread distribution procedures to the poor and needy. Nevertheless, the fact that structures of Byzantine and Ottoman provisioning were approximately the same should not mislead us to interpret it as sufficient evidence for the continuity thesis. It may well be that pre-modern empires hit upon doing things more or less

[5] This continuity must also be traceable to the large-scale military campaigns of antiquity. In a similar vein, Ottoman military campaigns (Berindei & Veinstein, 1987; Finkel, 1988) must also have provided valuable instances of learning-by-doing, the lessons of which may have been incorporated into the refinement of the policies and institutions of urban provisioning.

similarly when they came to face similar challenges. This may be the prime reason for the shared heritage. Even so, we have some evidence to suggest the presence of some degree of institutional continuity in this particular case.

The basis for a continuity thesis inevitable relies upon a comparison of the two imperial structures of capital provisioning in grain. However, there emerges a question of immediate relevance. For which periods will the across the time comparison be made? For the Ottoman Empire, seventeenth and eighteenth centuries offer the best bet, but upon closer inquiry we see that the eighteenth century manifests the utmost crystallization of the classical provisioning policy and institutions. However for the Byzantine era there remain two candidates. If one wishes to compare the periods when the might of empires was at its best and/or when the population of the capital was at its height, then certainly one has to turn back to the Justinian era, whereas if one wishes to see evidence of inter-imperial continuity and difference, one should focus on the late period. Different lessons follow. A comparison of the Justinianic Constantinople with the eighteenth-century Ottoman Empire would reveal a close resemblance in terms of population size as well as the dominant role of the state in provisioning. A close-up on the city would reveal very similar descriptions. First and foremost, we witness a picture, which not only brings the Byzantine and Ottoman capitals together but also sets them apart from their European counterparts in some fundamental aspects. For example, a notable historian of the provisioning of Paris, refers to the king as the "baker of last resort" (Kaplan, 1984: 24). Both the Byzantine emperors and their successors, the Ottoman sultans were not bakers of last resort, but rather, paraphrasing the quotation, "bakers of regular resort" for a faction of the population.

However, if one were to introduce a perspective into these pictures, we would see that whereas in the first picture we would see crucial supplies originating from Egypt, in the second picture, Black Sea basin comes to the foreground. If we compare the late Byzantine city with the Ottoman Istanbul, we gain insight into another important difference that has been of critical import for this paper. The late Byzantine case of provisioning, while retaining many of the original institutions of provisioning within the city such as storage, commercial restrictions, state monopolies (Bratianu, 1938: 140), nevertheless failed to exploit to its advantage the vast resources of the Black Sea world, whereas the Ottoman case was a true success story in this respect. A further corollary followed. Constantinople during the closing centuries of the Byzantine Empire, because it failed to monopolize these sources, became a city among the many whereas Istanbul under the Ottomans was an exceptional city. As a consequence, the provisioning of Constantinople became 'normalized', that is, it became more like the provisioning of second-rate Ottoman cities during the later era. The success of Istanbul in maintaining its vast catchment area helped turn it into an exceptional city, as far as its demography and concomitant provisioning regime was concerned. In other words, it was not within-the-city institutions of provisioning that differed late Constantinople from the Istanbul of the eighteenth century, but rather the links with the distant supply zones. In fact, even during the best of times, the Byzantine capital relied on a combination of local and long-distance catchment areas whereas the Ottoman capital successfully instituted a regime within which the distant supply zones worked as if they were regional zones. The Ottomans succeeded in exploiting continuously to their own advantage the resources of the Black Sea littoral at their disposal whereas the Byzantines saw these slip out of their hand. Just as the Genovese managed to divert these grain supplies to markets other than that of Constantinople, many centuries later, did not the nineteenth-century British liberals aspire for free trade in order also to channel the grain produce of the same geography to their own market?

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