

**Some Elements of
Centrally Planned Economy in the Late
Antiquity?**

Searching for Parallels in the Theodosian Code

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In this short paper which is a concise survey of legal sources rather than a study, I would like to consider some question with reference to the late Roman economy: the state intervention in the sphere of market and production. Naturally, at that time this kind of activity was not a novelty. In the past the Roman state sometimes stimulated the rise of local markets, and protected some strategic branches of industry and service sector. But the situation of the Empire and its economy in the 4th and 5th centuries was completely different because of administrative, social, and geopolitical changes. And the question comes up: how strong was the governmental intervention in this turbulent period? To what extent state controlled the economy, the market, the labour forces? Primary legal source of this period, *Codex Theodosianus* impress with many laws related to corporations and obligatory services. Actually, there were attempts to introduce some comprehensive and well-thought-out strategy of economic control? Are we able to find some parallels between the late Roman economy and the modern model of centrally planned economy, in which the state is main, and sometimes the only economic policy-maker, that establish the market prices, the level of production, the goods circulation, the amount of salaries and many other factors?

I shall remark that in this period the conditions emerged which are essential for the centrally planned economy, that is: the strong

centralized administrative power supported by enormous army, immense social control and the complex multistage bureaucracy.

In this article I focus on few elements of intervention into economy in the late Empire. I omit e.g. the issue of compulsory public service in the municipalities (*munera municipalia*) and the system of colonate because its separate background (not only economic). I skip well-known ineffective Maximum Price Edict, and some institutions that were owned by state from the very beginning, like *cursus publicus* and similar organisations, like *bastagarii*¹. In this short paper I would like to approach to the problem by short examination such branches of economy as: transport of public grain, strategic industry, mining, and answer the question, to what extent state controlled these spheres, and try to find some resemblance to modern model of central planned economy.

1. Public Food's Distribution

One of the elements, which had to remain under strict state control, was the system of free food distribution—a relic of the old republican order². It had political significance rather than economic, and was manifestation of power and benevolence of the emperor. It confirmed ruler's position as patron of the people of Rome and Constantinople, and above all, prevented the large agglomerations against the famine³. Sometimes it was used as a tool of mob's control, like in 342 AD when Emperor Constantius punished the people of Constantinople for

¹ *Bastagarii* were the organization that emerged in the 4th century as younger cousin of *cursus publicus*. *Bastagarii*, constituted the state transport service under the supervision of *comes sacrum largitionum*. They transported the gold resources, tax revenues, supplies for army and civil administration. There was only one statute in 384 AD, devoted to *bastagarii*. It provides information, that their work was obligatory and they could not change the occupation, although we had not the information about the hereditary of profession (CTh.10.20.11).

² P.GARNSEY, C.R.WHITTAKER, *Trade, industry and the urban economy*, The Cambridge Ancient History, Vol. XII. The Late Empire, A.D. 337-425, Cambridge 1998, p.318.

³ The mechanism's background was shortly described by P.GARNSEY, C.HUMFRESS, *The Evolution of the Late Antique World*, Cambridge 2001, p.111. Of course, Rome lost its prominent role in the late Empire for the Constantinople, Trevir, Ravenna, but its cultural influence and position of the hub of the universe was not disturbed. Indeed, the crowd of capitals demanded the food from the emperor or local officials like urban prefect, and expected, that grain supplies will be delivered by a State.

disturbances on the religious ground with reduction the daily bread distribution from 80.000 to 40 000 loaves⁴.

In the 4th century Rome's population received around 120.000 free rations of food (that contained bread, oil, pork, and even wine), and Constantinople had 80.000 receivers. Apart from that, free food was delivered to citizens of Alexandria, Carthage and Antioch. Privilege to receive free bread followed the houses not person⁵. Two types of bread were split: *panis gradilis* (free bread) and *panis fiscalis* (cut-rate rations)⁶.

It was calculated, that 80.000 food receivers in Constantinople were giving about 30.000 tons of wheat alone, that is about 630 vessels *per annum*⁷. Similar numbers relate to Rome. It gives above 1200 vessels that had to operate for two capitals. The size of undertaking is clearly visible. The system had to be complex: it contained state granaries, ships that belonged to *navicularii*, mills and bakeries, where the grain was converted into bread⁸. Let's discuss shortly each component of that system and consider its dependence on the government.

a. Grain Shipping

Transportation of grain for two capitals was performed by guild of public shippers (*navicularii*)⁹. These *navicularii*, mostly the great landowners were bound to build, maintain and operate the cargo ships with stated and requested capacity¹⁰. Membership of the guilds was

⁴ P.GARNSEY, C.HUMFRESS, *The Evolution...*, p.111.

⁵ CTh.14.17.1. P.GARNSEY, C.R.WHITTAKER, *Trade, Industry...*, p.329.

⁶ A.H.M Jones, *The Roman Economy. Studies in Ancient Economic and Administrative History*, Oxford 1974, p.130; P.GARNSEY, C.HUMFRESS, *The Evolution...*, p.110; P.GARNSEY, C.R.WHITTAKER, *Trade, Industry...*, p.328.

⁷ If we assume that standard cargo-ship was counted with medium capacity 50 tons. See S.KINGSLEY, M.DECKER, *New Rome, New Theories or Inter-Regional Exchange. An Introduction to the East Mediterranean Economy in the Late Antiquity*, in: *Economy and Exchange in the East Mediterranean during Late Antiquity*, ed. S.KINGSLEY, M.DECKER, Oxford 2001, p.2.

⁸ System was also supported by a price's control and state donations (CTh.14.16.1 and 14.16.3).

⁹ In the early empire there were merchants used by state to transport grain, but this sphere was more liberated. See F. DeRobertis, *Storia sociale di Roma le classi inferiori. Contributi varii alla storia economica e sociale Romana*, Roma 1981, p.207. In late antiquity *navicularii* were compelled to transport the grain and food supplies for the army as well (CTh.3.9.2, 13.5.35).

¹⁰ Compare CTh.13.5.27 (397 AD).

hereditary and burdened the ownership of land (*patrimonium*) subjected to the *navicularia functio*¹¹. No matter what was the status of owner these *patrimonia*. *Munus* could be imposed even on the land belonged to the Church or the *res privata*¹². So the obligation was connected to the land (*munus patrimonialis*) not to the person (*munus personalis*). The status of *navicularii* was very various: from *curiales* to landowners and even senators¹³.

But to what extent they were “public merchants”? We know that they were obliged to serve and bound by law, but the function burdened not person but ground, and there was possibility to break this tie by alienation of property. Moreover, their activity was controlled by state authorities: by the *praefectus praetorio Italiae*, *praefectus praetorio Orientis* or the *praefecti annonae* of Africa and Alexandria respectively, so we may speak about the public services. But in return they gained some privileges (e.g. on the ground of *lex Papia et Poppea*), exemption from some sort of taxes, municipal duties and immunities from other kinds of compulsory public service¹⁴. In 393 AD they gained exemption from the payment of trade toll: *vectigal*¹⁵. Of course authorities supervised the ships. Direct route to Rome and Constantinople and time of voyage had to be kept. Stops and delays were restricted and resulted in heavy penalties. But there were profits: *navicularii* were paid freights for the corn cargo - about 4 percent of shipment’s value¹⁶. Apart from these lawful benefits they sometimes made illegally profits from a corn they transported. They took up the corn in Africa or Egypt, and delivered the cargo to Rome and Constantinople with delay, meanwhile dealt in public cargo in minor ports. In the year 396 AD central authorities lost their patience and this practise was described by government’s

¹¹ A.H.M.JONES, *The Later Roman Empire 284-602. A social economic and administrative survey*, Oxford 1964, p.827.

¹² A.H.M.JONES, *The Later Roman Empire...*, p.827. CTh.13.5.3, 13.5.19; 13.6.1, 13.6.2, 13.6.4, 13.6.3.

¹³ Statute from 326 AD says...*sive decuriones sint sive plebei seu potioris alterius dignitatis...* (CTh.13.5.5 pr 326 AD).

¹⁴ CTh.13.5.5, CTh.13.5.7, CTh.13.5.17. Compare A.H.M.JONES, *The Later Roman Empire...*, p.828; McCORMICK, *Origins of the European economy. Communications and Commerce AD 300-900*, Cambridge 2003, p.42.

¹⁵ CTh.13.5.23. This privilege was attested again in 395: (CTh.13.5.24), in 404 and 412 AD (CTh.13.5.31, CTh.13.5.36). A.H.M.JONES, *The Roman Economy...*, p.131..

¹⁶ A.H.M.JONES, *The Later Roman Empire...*, p.828.

statute as “abuse the indulgence granted them (i.e. *navicularii*) in the laws” and clearly prohibited. Emperors stated, that *navicularii* have one year to deliver the public cargo from distribution point to recipient¹⁷. However some of *navicularii* still try to make business by “disdain a straight course of voyage and seek a remote coasts...and...sell these products”¹⁸. In this malicious practice they were accompanied by local authorities, provincial governors, members of *curiae* and corporations, as shows the *constitutio* dated to 410 AD¹⁹.

Some scholars claim that in this sector of market the private merchants were eliminated. But it must be remembered that *navicularii* simply mixed the state-trade and private-trade activities. Apart from public grain they could buy, transport and sell another types of goods like other free traders, but with favour of immunity from tax (*vectigal*)²⁰. So it cannot be said, that it was a branch of public service, but rather some sort of cooperation between the privates and state, backed up by delicate balance of profits and losses on the side of *navicularii*. Authorities had to keep this balance or faced general disobedience, as in 409 AD when the majority of east *navicularii* fleet scattered on Aegean and Mediterranean waters to avoid the onerous burden²¹. State didn't prohibit *navicularii* from commercial activity: just grain transport was primary duty and failure was threatened with the penalties. Of course state acted from the position of strength but also ensured *navicularii* with immunities, privileges and protection against local authorities if they attempted to delay or confiscate ship under the pretext of another type of compulsory service²².

b. Bread-making

At the end of *navicularii* routes awaited the public mills and bakeries of Rome and Constantinople. Public grain landed in

¹⁷ CTh.13.5.26.

¹⁸ CTh.13.5.33.

¹⁹ CTh.13.5.34.

²⁰ A.H.M.JONES, *The Roman Economy*..., p.132; C.R.WHITTAKER, *Late Roman Trade and Traders*, in: *Trade in the Ancient Economy*, London 1983, p.166; MCCORMICK, *Origins*..., p.89.

²¹ CTh.13.5.32.

²² CTh.13.5.9 (370 AD).

workshops that belonged to *pistores*, members of the bread-makers guild. In the Early Empire, until the 3rd century, *pistores* were free person, but as early as in 319 AD²³ their legal position changed and from now onwards they were tied to their occupation. If bread-maker abandoned the duty and sought refuge e.g. in the Church as a cleric, he was anyway recalled to the association²⁴. This obligation was hereditary, and could be imposed, as in the case of *navicularii*, on the property, not on the person. *Constitutio* from 315 AD shows, that only by purchase or inheritance of *pistor's* property, other person²⁵ could be incorporated into guild. So, there was a way to abandon the guild, and anyone who gained *pistor's* property, (by purchasing, will, dowry) became a baker in exchange, and was compelled to carry out a public duty. When alienation took place without malice intention, it was rightful, and every person could buy the *pistor's* property and adopt obligation as a substitute. But if the *pistor* transferred the property in order to conceal it and tried to wickedly avoid the duty, and after that he stated that he hadn't financial capacity to fulfil the obligation, he remained in the service of *pistores* anyway. Law provided another way leading to guild: according to statute issued in 355 AD entering into family of *pistores* by marriage resulted in taking on an obligation²⁶. Of course to the guild of *pistores* belonged not only humble men, but landowners too, and their properties were also burdened with obligation. The status of guildsmen could vary: from rank-and-file workers to owners of facilities.

And again, we shall ask, to what extent *pistores* were subdued to the government? Of course, they were free people²⁷. Technically speaking, obligation wasn't personal but patrimonial. But the government started to hinder alienation of the property. So, did the government aspire to collect the bread-makers in some kind of caste or craftsmen class, the controlled organization of skilled men? I think not, at least until 364 AD, when the imperial statute supposed that *pistor* (I think landowner) could become senator²⁸. Another way that

²³ CTh.14.3.1.

²⁴ CTh.14.3.11 AD 364.

²⁵ Except senators and state officials (since 364 AD: CTh.14.3.3pr.).

²⁶ CTh.14.3.2.

²⁷ Apart from slaves and convicts, who also worked in mills.

²⁸ Although he had to provide suitable substitute from their own resources (CTh.14.3.4).

led out of guild was open for *patronus pistorum*, who after 5-years period of duty should be granted “rest and leisure”, on the condition that he delivered successor and hand him over all necessary equipment including mills, farms, animals etc²⁹. But some sign of more strict control appear in 403 AD with the constitution of Arcadius, Theodosius and Honorius³⁰ that prohibited the marriage between member of the *pistores* family and person from outside the guild³¹. Yet, I think that we cannot speak about caste of *pistores*, and it was not a main goal of the government to build such caste. Indeed, it was hereditary obligation, and son of *pistor* had to follow father, but as his natural heir, not because of some caste-bonds

In this same situation as *pistores* were other guilds appointed to supply the capitals with other kinds of free food rations. Duty of pork and beef providers (*suarii, pecuarii*) was hereditary to this same extent as bread-makers. Obligation was imposed on property only, so if the *suarius* decided to quit, and for instance enter into Church, his property remained by guild³². Again, there were state control over *suarii* and *pecuarii* performed by *tribunus fori suarii* subordinated to *praefectus urbis*³³.

Apart from the *navicularii* and *pistores*, there were more city guilds and corporations. We find such organisations called *collegia* or *corporationes* in the Theodosian Code in some number. Besides “private” activities members were compelled to carry out the *munera*. Some services were performed of course for the benefit of the local society, but other for the benefit of the State³⁴. Members of *collegia* delivered a supplies and workers to the *mansiones* of the *cursus publicus*, the charcoal for public baths and acted as firemen³⁵. Among others Rome’s craftsmen were formed in *corporatio* of *catabolensis, centonarii, dendroforii*, etc.³⁶

The evolution from the liberal *collegia* that existed in the pre-Severan age, to the compulsory corporations of late antiquity was

²⁹ CTh.14.3.7.

³⁰ CTh.14.3. 21.

³¹ *Privatus* or charioteer and man of stage.

³² CTh.14.4.8. See A.H.M.JONES, *The Later Roman Empire...*, p.702.

³³ A.H.M.JONES, *The Later Roman Empire...*, p.691.

³⁴ A.H.M.JONES, *The Later Roman Empire...*, p.859.

³⁵ See CTh.14 titles 3, 4, 5, 6 and 8. See also A.E.R.BOAK, *Manpower shortage and the Fall of the Roman Empire in the West*, Michigan 1955, p.75.

³⁶ A.H.M.JONES, *The Roman Economy. ...*, p.400; A.H.M.JONES, *The Later ...*, p.702.

gradual, and was initiated under the rule of Severan dynasty³⁷ In the 4th century most of city organisations were subordinated to state.

Number of laws issued at the end of 4th century in the Western Empire, prohibited *corporati* from enrolling in the *officia*, enlisting in the army, abandoning the post, taking up agriculture, in short, the government tried to convert the free craftsmen into the hereditary class³⁸. Statute dispatched to Stilicho in 400 AD ordered him to dismiss *corporatii* from the army³⁹, and law from 412 AD issued at Ravenna prohibited the members (*corporati*) of Rome's guilds to abandon their organisation⁴⁰.

But further evidence show, that this solution was limited only to the Western part of Empire. In the East none of similar law were issued, an none of above mentioned laws from West were contained in the *Codex Iustinianus*. Apparently in the East guilds remained free⁴¹.

2. State Factories

a. Fabricae

In the 4th century government established a network of weapon factories and henceforth production of arms became almost imperial monopoly. *Notitia Dignitatum* lists fifteen *fabricae* in the Eastern part, and twenty in Western part of Empire. These state-owned *fabricae* produced weapons, armours, shields and siege machinery. Here, state management was developed to large scope⁴². *Fabricae* were state property as a whole, by contrast with *navicularii* grain-vessels or *pistores* mills and bakeries. Armouries were supervised by state officials and by the army officers⁴³ responsible to the pretorian prefects. Government set a level of arm's production⁴⁴.

³⁷ F.DE ROBERTIS, *Storia delle corporazioni e del regime associativo nel mondo romano*, Bari 1971, p.137; F.DE ROBERTIS, *Storia sociale di Roma le classi inferiori. Contributi vari alla storia economica e sociale Romana*, Roma 1981, p.208.

³⁸ P.GARNSEY, C.R.WHITTAKER, *Trade, industry...*, p.318. See. CTh.14.2.4, CTh.7.21.3.

³⁹ CTh.7.20.12.

⁴⁰ CTh.14.2.4.

⁴¹ A.H.M.JONES, *The Later Roman Empire...*, p.408, 861.

⁴² C.R.WHITTAKER, *Late Roman Trade and Traders...*, p.165.

⁴³ R.MACMULLEN, *Social Mobility and the Theodosian Code*, JRS 54 (1964), p.52.

⁴⁴ E.g. the statue of Valentinian and Valens dated to 374 AD (CTh.10.22.1) ordered each armourer in *fabrica* at Antioch and Constantinople to produce six helmets for every 30-day period, and another six decorated with silver and gold in this same time.

What was the status of workers of these armouries - the *fabricenses*? We know that they were ranked as soldiers, received *annona* and military privileges and each factory was counted as a quasi-military unit⁴⁵. Their duty was compulsory and hereditary. The statute from 398 AD⁴⁶ show the practice of branding the hands of armourers, *ad imitationem tironum infligatu*, to recognize potential deserter⁴⁷. Hereditary character of this occupation is showed by this same constitution: not only armourers but their children were under the severity of law. And in the 404 AD authorities forbade the armourers to undertake other activities under threat of heavy fine and confiscation of property of employer of such armourer⁴⁸. So we have three elements: obligation, legal bonds and transmission of obligation from father to son. There is no evidence that commitment was connected to the property of armourer, so maybe it was personal, but again: it wasn't a caste. Of course, state controlled the movement of labour and change of occupation was prohibited, but after some period of service *fabricenses*, like the soldiers, were dismissed. They even attained much more: *Primicerius fabricae*, supervisor of armoury, could be granted along with retirement from the "service" the rank of protector (*protectores*)⁴⁹. Every person could become armourer, provided that the volunteer proved that neither he, nor his father or grandfather were decurions and were not obliged to performance of compulsory municipal service⁵⁰.

It's interesting that apart from large *fabricae*, small private armouries existed, but their significance for the army was rather small. Total government control came only in 6th century, when private armouries were drafted into *fabricae* of Byzantine State⁵¹.

b. Weaving mills

State-owned weaving mills or *gynaecaea* appeared in the early 4th century⁵². Alike the *fabricae*, weaving mills played important role in

⁴⁵ A.H.M.JONES, *The Later Roman Empire...*, p.835.

⁴⁶ CTh.10.22.4.

⁴⁷ A.E.R.BOAK, *Manpower shortage...*, p.106.

⁴⁸ CTh.10.22.5.

⁴⁹ CTh.10.22.3.

⁵⁰ CTh.10.22.6.

⁵¹ A.H.M.JONES, *The Later Roman Empire...*, p.826.

⁵² R.MACMULLEN, *Roman Government's Response to Crisis AD 235-337*, London 1976, p.156.

the government structure: production of woollen and linen uniforms for the troops, civil officials and luxury clothing for the *palatium*⁵³. *Gynaecaea* were controlled by one of the highest state officials: *comes sacrarum largitionum*. These factories as the state armouries were expected to produce fixed number of clothes per year⁵⁴ and to some extent their activity created a state monopoly. Only state weaving mills could make clothes with use of silk, purple and golden threads⁵⁵.

Workers of *gynaecaea* were bounded by ties of strict law, like the *fabricenses*, as the legal language of the 4th century shows. Although they were free people, in the emperors' constitutions they are styled as slaves (*manceps*)⁵⁶. One of the statutes of Constantius is devoted to runaway weavers, and ordered to catch them and hand over to the authorities⁵⁷. The obligation of work is attested by the law of Valentinian and Valens: when public weaver entered into private service the penalty was inflicted upon weaver and employer⁵⁸. Service was hereditary⁵⁹, besides the obligation was transmitted by a marriage bonds⁶⁰. But there was possibility to break the tie. Weaver had to find a person who replaces him in duty⁶¹. So it was not a true "caste". The social movement still existed albeit very limited as in the case of other state -workers.

c. Purple dyers (*conchylegui*), *monetarii*

Another branch of industry controlled by state was extraction of purple dye very important from the *palatium* point of view. It was a state monopoly⁶². There were imperial purple fisheries at least from

⁵³ A.E.R.BOAK, *Manpower shortage...*, p.104.

⁵⁴ A.H.M.JONES, *The Later Roman Empire...*, p.837.

⁵⁵ And interweave gold or silk borders on tunics, or coloured clothes with a purple (CTh.10.21.1-3)

⁵⁶ A.H.M.JONES, *The Later Roman Empire...*, p.836.

⁵⁷ CTh.10.20.2

⁵⁸ Fine of 3 pounds of gold. (CTh.10.20.6-372 AD and CTh.10.20.7. This law were renewed two years later with more severe amount- 5 pounds gold (CTh.10.20.8)and in 380 (CTh.10.20.9).

⁵⁹ CTh.10.20.16.

⁶⁰ The occupation follow the women from weavers family (CTh.10.20.17, CTh.10.20.3).

⁶¹ Of course, the rest of family of released person remained in guild, and his property as well (CTh.10.20.16 in fine).

⁶² All abuses in this sphere were threatened with accusation of high treason (CTh.10.20.16, 10.20.18).

the reign of Alexander Severus⁶³, and its dependence on state remained in the 4th century. Controlled by *comes sacrarum largitionum* purple dye manufactures were manned by forced labour. The obligation was maybe hereditary since early 4th century⁶⁴ and additionally it was acquired by marriage with a women from the family of *conchylegii*⁶⁵. But the release was possible too: by a substitute. In similar position were *monetarii*, workers of state mints. The obligation was imposed on property as in the case of *pistores* or *navicularii*, and followed the *patrimonium*⁶⁶. Some signs of personal character of ties are visible only in the law dated 317 AD: a women of splendid status (*mulier spendidioris gradus*) could not marry a minter. But the social mobility was possible. For instance emperor Julian enrolled some *monetarii* in the council of Antioch in 362 or 363 AD⁶⁷.

3. Mining

The mining in the Principate relied on the system of concession and sometimes gold mines could be supervised by provincial officials⁶⁸. In the Later Roman Empire mineral and ore resources were important and the gold silver and iron was most significant among them especially for weapons production, army supplies, and to sustain imperial coinage policy⁶⁹. The quantities of gold confiscated form accumulated reserves of usurpers, gained from taxes and pagan temples were insufficient because of vast expenditure of State. Gold and silver could be found only in a few parts of empire, unlike iron. It's resources were limited and some of gold mines were abandoned through 3rd century, so necessary attention of government was needed to face this problem⁷⁰. There are evidence about the central control of precious metals' industry: the high office of *comes sacrarum*

⁶³ R.MACMULLEN, *Roman Government's Response...*, p.153.

⁶⁴ CTh.10.20.14, CTh.10.20.15, see A.E.R.BOAK, *Manpower shortage...*, p.105.

⁶⁵ CTh.10.20.5.

⁶⁶ CTh.10.20.14.

⁶⁷ A.H.M.JONES, *The Roman Economy...*, p.401.

⁶⁸ State gain revenue from the leasing contracts for the extract mineral resources. Of course, there was state control of gold-ore sources in the Principate too. Special equestrian officials (*procuratores metallorum*) and army units guarded the gold mines at least in the roman Spain. See J. C. Edmondson, *Mining in the Later Roman Empire and beyond. Continuity or disruption?*, *Journal of Roman Studies* 79 (1989), p.89; A.E.R.BOAK, *Manpower shortage...*, p.106.

⁶⁹ J.C.EDMONDSON, *Mining in the Later Roman Empire...*, p.84

⁷⁰ J.C.EDMONDSON, *Mining in the Later Roman Empire...*, p.84.

largitionum, controlled among others gold mines. Supervision was performed indirectly by curiales – *procuratores metallorum* on Balkans subordinated to *comes metallorum per Illyricum*⁷¹. Government tried to control the rank-and-file labour also⁷². The statue of Valentinian and Valens (369 AD) indicates compulsory labour in mines⁷³. It says about the miners hiding in order to avoid work in the remote places, even on imperial patrimonies⁷⁴. These miners should be searched out, arrested and restored to work. The aim is clearly expressed: “no part of the Roman world shall be left from the miners”. And in 373 AD came prohibition to hide a gold miners (*aurileguli*) related to Orient and Illyricum especially⁷⁵. Another law implies that there was control of the miners’ moving. In 369 AD each *gubernator* or *magister navis* should pay 5 *solidi* of fine for each miner transported to Sardinia, where diggers usually seek to escape⁷⁶. And in 378 AD governors of all coastal provinces were informed that the voyages are prohibited for gold miners and were ordered to inflict punishment upon the miners and their guards⁷⁷. We know from statute dated 424 AD, that in the East mining service became hereditary and was connected to property of miner. Purchaser of that property had to undertake the profession of seller⁷⁸.

Yet besides there is no evidence, that the government attempted to gain control over whole mining industry. Otherwise, small private mines are attested indirectly by some statutes. Probably state mines still leased out the gold resources in return of special tax, *metallicus canon*⁷⁹. Marble quarries were in the hands of *privati*. It is attested by

⁷¹ CTh.1.32.5, *Notitia Dignitatum* Or. XIII.

⁷² *Codex Theodosianus* refers to the gold miners in the eastern part of Empire (Illyricum, Macedonia, Thracia). CTh.10.19. 7, 10.19.12, Italy and Gaul (10.19.9 J.C.EDMONDSON, *Mining in the Later Roman Empire...*, p.92.

⁷³ CTh.10.19.5.

⁷⁴ Miners tried to escape the burden even by go over to the barbarians. Ammianus attested the flight of Thracian miners to the Goths(31.6.6).

⁷⁵ CTh.10.19.7.

⁷⁶ CTh.10.19.6. It’s claimed also that run miners to Sardinia was caused by „some kind of gold rush” (M.McCORMICK, *Origins...*, p.42). This regulations clearly indicates fear of authorities about the effectiveness of mining industry.

⁷⁷ CTh.10.19.9.

⁷⁸ CTh.10.19.15.

⁷⁹ CTh.10.19.3-4, and 12.

Constantine's and Julian's constitutions⁸⁰. Of course, there was special tax and other fees burdened on private mines' owners⁸¹, but law indicates the liberty of mining, at least in the stone and marble quarries

4. *Parallel and conclusion*

Finally can we treat the vast state intervention in the above mentioned fields of economy as parallel to centrally planned economy of modern times?

First of all, it must be remembered, that the legal sources preserved in the Theodosian Code are prescriptive and contain orders that couldn't be effective. Code shows the plans and intentions of rulers rather, than the actual situation. And if we think about the some traces of centrally planned economy in the Late Antiquity we must read it: the model of economy drew up by rulers, not a real situation. Undoubtedly there were some solutions that worked and were effective but maybe not to that extent, as we could see in the Code.

Again the intention of government wasn't to preserve the whole industry in the world of collapsed economy. Evidence shows, that after 3rd century stagnation⁸² there were economic revival in the 4th and the 5th century⁸³, at least in the Orient⁸⁴. Cities were again peopled, trade and agricultural became stronger, currency reformed, inflation under control and demographic decline stopped.

So why the state tried to control some branches of industry? To what purpose?

⁸⁰ In 320 AD emperor Constantine issued statute, that allowed every interested person in the quarrying the marble cut and sell such stone (CTh.10.19.1). Just forty years later emperor Julian by the law encouraged the private persons to cut the marble, in hope of increasing the extraction and reducing the marble's prices. So he granted the concession for "all men who wish a quarry" (CTh.10.19.2).

⁸¹ CTh.10.19.11

⁸² About the problems of 3rd century see A.BERNARDI, *The economic problems of the Roman Empire at the time of its decline*, SDHI 31 (1965), p.130.

⁸³ A.BERNARDI, *The economic problems...*, p.121.

⁸⁴ B.WARD-PERKINS, *Specialisation, Trade and Prosperity: an Overview of the Economy of the Late Antique Eastern Mediterranean*, in: *Economy and Exchange in the East Mediterranean during Late Antiquity*, ed. S.KINGSLEY, M.DECKER, Oxford 2001, p.167.

We must seek the reasons in turbulent 3rd century when inflation struck imperial market and system of taxation⁸⁵ and currency lost its purchasing power. Some branches of trade and industry became unprofitable and has been abandoned. Mines in some regions (especially Spain and Balkans) were devastated by barbarian invasions⁸⁶, and their restoration was beyond abilities of private companies⁸⁷. But as the production of some kinds of goods and extraction of ore had to be continued, state started to control the workforces. The policy and power of emperors now lied on army and administration, and both of them had to be more and more strictly controlled, and the strong economy was needed to keep military and civilian institution operational. With the great expansion of the army and *militia officialis* the role of the state in the economic life had to grew up⁸⁸.

To answer the question about the extent of the state control, its trends and if it head for total control of some branches of economy, we must summarize above mentioned issues. There was powerful state control over the labour forces undoubtedly. Workers of the state factories, gold-miners, members of *navicularii* and *pistores* guilds were bound by legal ties to occupation. Social movement was limited, sometimes very harshly. There were some signs of caste system like in the case of weavers or *conhyleguli* where body of workers was enlarged as a consequence of marriage. Desertion of the occupation was punished. State supervised activities and fixed level of production.

But some exclusions still existed. Obligation was hereditary, but there were possibilities to evade the duty through few channels, like property's alienation, social promotion or dismissal after prescribed period of work. Additionally in some cases state allowed to perform another activities e.g. the grain transportation was primary task of *navicularii* but not the sole one. Apart from that they could trade on

⁸⁵ Compare C.RWHITTAKER, *Inflation and the Economy in the fourth century A.D.*, in *Land, City and Trade in the Roman Empire*, Aldershot 1993, p.1-22.

⁸⁶ J.C.EDMONDSON, *Mining in the Later Roman Empire...*, p.94.

⁸⁷ From the free market point of view in some regions production of metals became unprofitable because of depletion of supplies needed for smelting of ore (lack of charcoal caused by deforestation in the mines' vicinity), and danger of barbarian raids. (J.C.EDMONDSON, *Mining in the Later Roman Empire...*, p.94.).

⁸⁸ A.H.M.JONES, *The Roman Economy...*, p.131

free market, and they made the most of opportunity. And, what is most important, the existence of *pistores*, *navicularii*, etc. did not create the state monopoly in these spheres of economy (with some exceptions). Independent sea trade flourished, and was vigorous, small mines operated in private hands. In Constantinople and Rome existed private mills and bakeries⁸⁹ which along with private merchants, still provided the food for the capitals' population, supplementing the state bakers and shippers⁹⁰.

So, what is the main goal of government in issuing above mentioned laws? We must realize that it was not a first step to take control over whole state economy. It was an attempt to approach the self-sufficiency of the two primary state pillars: administration and army. We must notice that nothing from the goods manufactured by state factories and state controlled organisations were sold on market. Food was for political supporters - mob of the capitals, weapons for army, clothing for both soldiers and state officials, gold for mints. There was no surplus destined to free trade.

I think imperial government realized that there are some vital areas of economy, which cannot remain out of strict central control. These areas had to operate independently of liberal economy and must fulfilled the requirements of military and administration only. Continuity of production had to be secured by severe and strict management even in the time of crisis. So the state tried to create some "emergency" economy system limited only to very strategic and vital areas of industry and market (from the *palatium* point of view). It was not the way to some new system. It was simply autarchy, self-sufficiency, that covered just not whole state, but only vital government's needs.

⁸⁹ P.GARNSEY, C.R.WHITTAKER, *Trade, Industry...*, p.320.

⁹⁰ B.SIRKS, *Characteristics of the Late Roman Empire*, in: *Atti dell'Accademia Romanistica Constantiniana. X Convegno Internazionale in onore di Arnaldo Biscardi*, Napoli 1995, p.283. A.H.M.JONES, *The Later Roman Empire...*, p.699.