

Prices and Wages in St. Petersburg for Three Centuries (1703-2003)

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The history of prices and wages in Russia has been studied extremely insufficiently – there is no series of data on at least one town or trade for any protracted period of time. In this article the first attempt has been made to construct a general index of prices and wages in St. Petersburg 1703-1913 and estimate the purchasing power of wage for 1713-2003.

Materials and methods of their processing

The sources of information on prices and wages were account book, reference price lists and price catalogues.¹ The trade of carpenter-builders paid by the day was chosen as representative trade. This trade was a mass and widespread one throughout the entire period under study. Carpenters received wages generally typical of all people of hired labor.²

The database, which we have created, allows us to obtain indices of prices for 40-88 goods from 1711 to 1913. The obtained indexes are far from ideal ones owing to several causes.

(1) It is impossible to achieve complete homogeneity of goods taken into account since the quality of the same goods changes during 200 years. Even such, one would think, homogeneous goods as rye, oat, wheat and barley changed their quality from year to year depending on the crops.

(2) When converting volume units into weight units we had take the weight of volume units as a constant whereas its weight fluctuated from year to year and depended on the quality of goods. Besides that during 200 years the units of measurement also changed. And all this required the conversion of all measures in to the unified metric system of measures – into kilograms or liters. In such a conversion inaccuracy is inevitable.

(3) There were monthly price fluctuations. In the year of poor crops and epizootics prices fluctuated considerably. In many cases there is no information for all the months of year.

(4) In St. Petersburg there were several spheres of commerce – retail trade, small scale wholesale trade, large-scale wholesale trade, export and import trades. In every trade prices for the same goods differed. The highest prices were in retail trade, the lowest – in large-scale wholesale trade. The difference was up to 20 percent for the same commodity of equal quality. Among our data we came across all categories of prices. The prices of big wholesale purchases, as a rule, were entered in account books, small-scale and retail prices were fixed in reference lists and prices in export and large-scale wholesale trade – in the price lists of commodity exchanges. It is impossible to unify all data completely.

(5) Yearly data were derived from monthly data. Average decennial data were deduced on the basis of yearly data. In both cases average prices were not weighted on the quantity of commodities sold due to the lack of such information. As applied to grain the quantity of which fluctuated particularly much from season to season and from year to year, the difference of weighted and unweighted prices was within the limits of 5 percent.

(6) Frequent perturbations in the Russian monetary system also affected the correctness of indices. In order to eliminate the influence upon process of inflation and the lowering of silver and gold content in money (both factors are the indispensable companions of the Russian money circulation) all prices before 1840 were converted into the silver ruble of 1764 which contained

¹ Georgi (1996), pp. 426, 431, 434, 437-441, 445, 447; *Kniga* (1876); *Materialy po istorii SSSR* (1957), pp. 254-269; Petrov (1884), pp. 312-314, 436-438, 528; Zablotskii-Desiatovskii (1836), pp. 219-222; Zablotskii-Desiatovskii (1836a), Tables 63-74, 81-92.

² Kopanev (1957), pp. 70-85; Rykachev (1911); Stolpianskii (1921), pp. 86-104; Stolpianskii (1925), p. 20-21.

18 grams of pure silver and after 1840 – into the gold ruble of 1/10 imperial which contained 1.1614 grams of pure gold,³ at the rate of exchange at the St. Petersburg Stock Exchange.

In analysis of grain prices, which were of principle significance of the Russian economy of the time under the study, showed that in the construction of an index, certain errors of initial data are not summed up automatically and are not mutually liquidated. In the aggregate they can result in such a distortion of a price, which, as a rule, is within 10-percent error of measurement.⁴ In consequence of this the constructed indices are not always able to properly represent small (within the limits of 10 percent) price fluctuations within certain years, but their rather accurately show the general dynamics of prices of a given commodity during a protracted period of time, since the price change was considerable – during 200 years on the whole prices rose 5.5 times.

The procedure of obtaining the price index for a commodity was as follows: at first we took into account the information from the richest sources, then we filled up the gaps with prices close in category to other sources and finally, when it was necessary, from all remaining sources with due regard for their specific character.

On the basis of indices for individual commodities we constructed the general index of St. Petersburg prices for 1713-1853 and linked it up with the budget index of St. Petersburg prices for 1853-1913 into a unified index, which was calculated in 1920s at the Institute of Economic Research of the USSR Gosplan.⁵ In the procedure of determining the general of price the weights or share of individual commodities assumed in calculation are of a principal significance. Any general index of prices is created for the solution of a specific research problem. In our case the index is necessary for the assessment of real value of Petersburg workers' wages. In other words we have to create such an index of prices which would take into account the importance of individual goods in the worker's budget – the so called budget index. That is why out of a large list of goods we chose 47 articles, which were most important for the budget during the entire period under the study and which were most supported by the price information. Out of 47 articles 20 are food-stuffs: 1) barley, 2) beef, 3) buckwheat, 4) butter, 5) eggs, 6) flour rye, 7) flour wheat, 8) herring, 9) honey, 10) mutton, 11) oil, 12) peas, 13) pork, 14) prunes (common people seldom ate prunes but their prices reflected the prices of fruits), 15) rye, 16) salt, 17) sparlings, 18) suit, 19) vodka, 20) wheat. 19 articles related to dwelling: 1) bricks, 2) candles tallow, 3) canvas, 4) chalk, 5) copper, 6) firewood, 7) hemp, 8) iron, 9) nails, 10) oat, 11) oil hempseed, 12) paper, 13) plumbum, 14) potash, 15) rope, 16) soap, 17) tar, 18) wax, 19) wire iron. 8 articles related to clothes and footwear: 1) boots of men, 2) coarse heavy cloth, 3) flax, 4) leather (juft'), 5) linen thin, 6) sheepskin, 7) sheepwool, 8) shoes of men.

Calculating the general index of prices we followed the adopted procedure. Related goods – food-stuffs, clothes, dwelling – formed groups. A subindex or group index of prices was calculated for these groups. The subindex was calculated as an unweighted arithmetical mean from the index of prices of all goods included in this index. Then the subindices were integrated into the general index of prices by means of weighing them on the share of goods, which they unify. Thus, the budget index of prices with constant weights was calculated by the Paashe formula. Invariable weights were assumed for the entire period under study. These weights were calculated from the budgets of St. Petersburg workers in 1907-1908 since during the 18th and 19th centuries the workers' budgets underwent no radical changes (see Table 1).

Table 1: The Expenses of St. Petersburg Workers per Capita in 1907-1908

| | <i>Kopeks</i> | | <i>Percent</i> | |
|---------|---------------|---------------|----------------|---------------|
| | <i>family</i> | <i>single</i> | <i>family</i> | <i>single</i> |
| Renting | 252 | 475 | 15 | 13 |

³ Zvarich (1979), pp. 78, 146-149.

⁴ Mironov (1985), p. 31.

⁵ Strumilin (1966), pp. 81-82, 380; Bobrov (1925), pp. 431-432.

| | | | | |
|--------------------------------|------|------|-----|-----|
| Heating, lighting | 65 | 34 | 4 | 1 |
| Household implements | 25 | 37 | 2 | 1 |
| Food | 805 | 1387 | 49 | 37 |
| Tobacco, alcohol | 83 | 300 | 5 | 8 |
| Clothes, footwear | 201 | 512 | 12 | 14 |
| Laundering, hygiene | 54 | 130 | 3 | 3 |
| Medical treatment | 21 | 34 | 1 | 1 |
| Cultural and educational needs | 54 | 172 | 3 | 5 |
| Socio-political needs | 20 | 61 | 1 | 2 |
| Religious needs | 4 | 7 | 0 | 0 |
| Aid to relatives | 36 | 407 | 2 | 11 |
| Other expenses | 31 | 164 | 2 | 4 |
| Total | 1651 | 3720 | 100 | 100 |

Source: Prokopovich (1909), pp. 9-17.

From Table 1 it follows that 54 percent of the family workers' income and 45 percent of the single workers' (single workers could have families living in the country) income were spent on foodstuffs, tobacco and alcohol, 15-21 percent – on housing and on covering flat maintenance costs, 15-17 percent – on clothes, footwear and linen. Only 5 percent of the family workers' income and 7 percent of single workers income were spent on the satisfaction of various kinds of spiritual and cultural needs. Two percent of the family workers' income was remitted to their relatives in the country. Not much money, nearly one percent of all expenses, was spent on medical treatment. This may be attributed to the fact that the majority of workers were young and healthy. When they got old they moved to the country. Their under-age children also often lived in the country with workers' wives or relatives. Traveling expenses were not observed as workers lived either near their places of work or right at the enterprises they worked at. Neither was observed the expenditure on the direct tax payments since workers did not pay tax. In the 18th and early 19th centuries the structure of the St. Petersburg workers' budget was nearly the same: the lion's share of expenses fell upon food, which mainly consisted of vegetables, small spending on housing, clothes, footwear and almost insignificant spending on the satisfaction of spiritual needs.⁶

Processing from our specific task – the construction of the budget index – we excluded from the analysis of the budget spending on the aid to relatives and on the satisfaction of spiritual needs. The aid to relatives (mainly postal money orders to the country) was not taken into account since the money was withdrawn from St. Petersburg. And financial aid to those living in the city was spent approximately the same way as it was spent by those who rendered the aid. Expenditure on cultural and educational, socio-political and religious needs was not taken into account either because of their insignificance. In the budget their share was 5.7 percent.

The remaining expenses were unified into three large groups – food, lodging, and wardrobe. The food items included spending on foodstuffs, tobacco, alcohol, and treatment since during an illness the greater part of money was spent on additional nourishment and treatment itself consisted in drinking vodka or hot milk. The housing item integrated spending on rent, heating and lighting. The wardrobe item sums up spending on clothes, footwear and linen (see Table 2).

Table 2: The St. Petersburg Workers' Expenditure per Capita in 1907-1908

| <i>Expenditure</i> | <i>Percent</i> |
|--------------------|----------------|
|--------------------|----------------|

⁶ Semenova (1974), pp. 109-212; Semenova (1982), pp. 212-274; Semenova (1998), pp. 165-179; Kitanina (1991), pp. 31-45, 100-118, 141-148, 185-190, 195-251, 342-354, 398-412.

| | |
|--------------------------------|-------|
| Housing: | 20.7 |
| rent | 15.3 |
| heating and lighting | 3.9 |
| household implements | 1.5 |
| Food | 48.8 |
| Tobacco, alcohol | 5.0 |
| Clothes, footwear | 12.2 |
| Laundering, hygiene | 3.3 |
| Medical treatment | 1.3 |
| All spiritual needs: | 4.7 |
| cultural and educational needs | 3.3 |
| socio-political needs | 1.2 |
| religious needs | 0.2 |
| Aid to relatives | 2.2 |
| Other expenses | 1.9 |
| Total | 100.0 |

Source: Prokopovich (1909), pp. 9-17.

Results and their discussion

On the basis of calculation made we divided all goods into three groups (20 goods we related to foodstuffs, 8 – to wardrobe, 18 – to housing). After that we constructed three subindices with weights of 71, 19, 10 percent correspondingly. Then we calculated the general basis price index with the base date of 1913 which had the most detailed information. To facilitate the discussion of the obtained results we presented them in Table 3 and in Figure 1 where the base date is the initial period – 1713-1720.

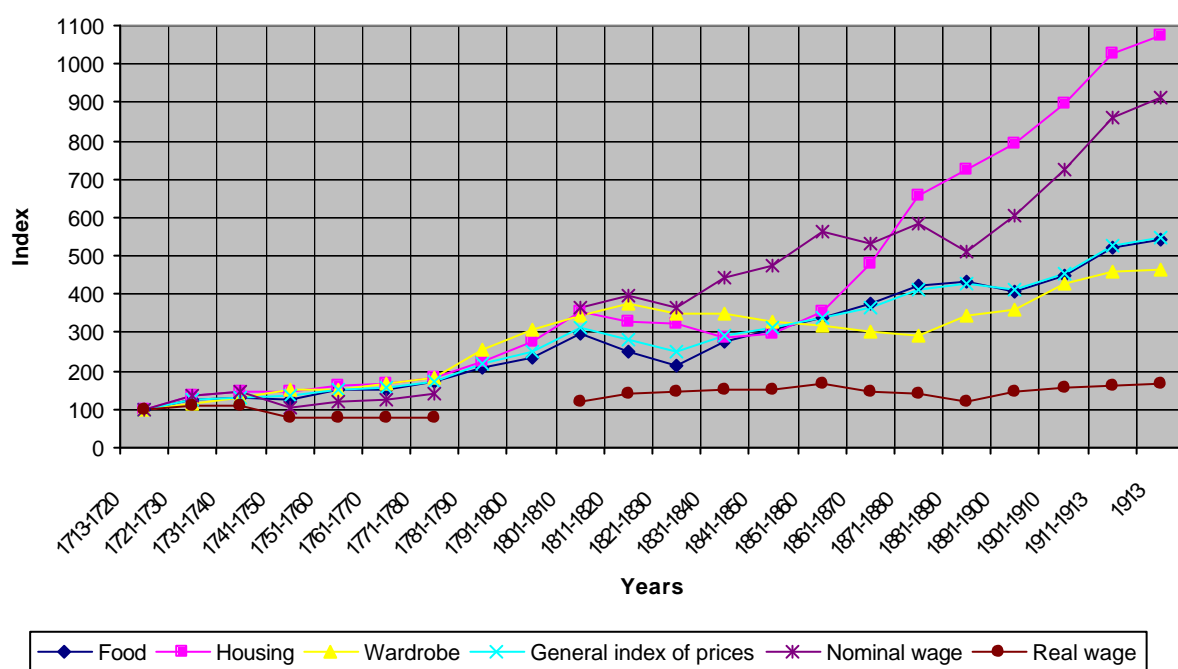
Table 3: Price Indices and Carpenters' Wages in St. Petersburg in 1713-1913
(1713-1720=100)

| Years | Subindices of Prices | | | General Index of Prices | Index of Nominal wage | Index of Real Wage |
|-----------|----------------------|---------|----------|-------------------------|-----------------------|--------------------|
| | food | housing | wardrobe | | | |
| 1713-1720 | 100 | 100 | 100 | 100 | 100 | 100 |
| 1721-1730 | 123 | 138 | 117 | 123 | 134 | 109 |
| 1731-1740 | 129 | 146 | 129 | 130 | 145 | 111 |
| 1741-1750 | 125 | 144 | 153 | 133 | 103 | 78 |
| 1751-1760 | 151 | 162 | 149 | 152 | 120 | 79 |
| 1761-1770 | 152 | 169 | 168 | 157 | 125 | 80 |
| 1771-1780 | 170 | 180 | 185 | 174 | 139 | 80 |
| 1781-1790 | 211 | 223 | 255 | 221 | - | - |
| 1791-1800 | 236 | 274 | 307 | 252 | - | - |
| 1801-1810 | 296 | 354 | 344 | 311 | 365 | 118 |
| 1811-1820 | 251 | 327 | 375 | 280 | 394 | 141 |
| 1821-1830 | 213 | 321 | 351 | 248 | 365 | 148 |
| 1831-1840 | 278 | 289 | 350 | 292 | 445 | 153 |
| 1841-1850 | 309 | 299 | 331 | 312 | 477 | 153 |
| 1851-1860 | 338 | 355 | 318 | 337 | 562 | 167 |
| 1861-1870 | 376 | 479 | 300 | 366 | 533 | 146 |

| | | | | | | |
|-----------|-----|------|-----|-----|-----|-----|
| 1871-1880 | 421 | 656 | 292 | 413 | 584 | 142 |
| 1881-1890 | 434 | 725 | 345 | 427 | 511 | 120 |
| 1891-1900 | 407 | 795 | 361 | 411 | 606 | 148 |
| 1901-1910 | 449 | 896 | 425 | 456 | 723 | 159 |
| 1911-1913 | 520 | 1026 | 461 | 528 | 861 | 163 |
| 1913 | 541 | 1076 | 465 | 548 | 911 | 167 |

Sources: Archive of St.-Petersburg Institute of History; Chulkov (1786), vol. 6, part 2, pp. 367–372; vol. 7, part 1, Table 11; Kopanov (1957), pp. 70-85, 119-126; Kitanina (1991), pp. 195-251; Mironov (1985); Petrov (1884), pp. 312-314, 436-438, 528; Platonov (1927); *Polnoe sobranie zakonov Rossiiskoi imperii* (1830), vol. 45, pp. 4-6; Russian State Historical Archive; *Sankt-Peterburgskii preis-kurant*, 1807-1857; Rykachev (1911); *Sankt-Peterburgskie vedomosti*, 1746-1777; Semenov (1859), pp. 502–505; ???????? (1974, 1982); Stolpianskii (1921), pp. 86-104; Stolpianskii (1925), p. 20-21; Strumilin (1966), pp. 81-82; *Vedomost'* (1832, 1834, 1835, 1836); *Vedomosti* (1853-1917); Virst (1807).

Figure 1. Indices of Prices and Wages in St. Petersburg in 1713-1913 (1713-1720=100)



From 1713 to 1913, in St. Petersburg as well as in the whole of Russia prices rose nearly 5.3 times and experienced a real revolution which affected all aspect of life. The price revolution and its consequences deserve the same thorough socio-economic analysis as the similar price revolution in Europe which occurred two centuries earlier in the 16th and 17th centuries. Within the framework of this article the given subject can be touched upon very briefly.

During the imperial period in St. Petersburg the general tendency of price fluctuation was an increasing one. A decline in the general price index was observed only during three out of 20 decades – in 1811-1830 and 1891-1900, although prices for certain groups of goods decreased more often – during 4 decades prices decreased for food and housing and during 6 decades – for clothes and foodware. But the price rise was going on unevenly. The greatest price rise (3.1 times) occurred in the first century of the capital's existence, in 1703-1810, mainly in the 18th century. It was caused by Russia's joining the world market and participation in the world division of labor as a country exporting raw materials and importing manufactured goods. Russia

has been playing this role up to now although the range of exported goods has changed. With the start of the price revolution the European market and West European culture came to Russia and began to transform her in their own way. And up to now this process is still going on.

Before the 18th century the extent of Russia's and other European countries involvement in various all-European social, economic, cultural, and political processes was essentially different. For example, the enslaving of population in Russia was all-embracing and deep as nowhere else. On the contrary, dissimilation of literacy, secularization of mass public consciousness had not taken root in Russian society. In general certain processes passed by Russia and if affected her then only superficially. For example, Russian society had never gone either simultaneously or later through the crucible of the Renaissance, Reformation, Counter-reformation and scientific and technological revolution of the 17th and 18th centuries which took place in West-European countries. Only in the 18th century Russia really joined the rest of Europe and together they began to constitute a united cultural, economic, and information space. Russia began to experience the same process and phenomena, which took place in Europe, though with some delay and different intensity. The fluctuation of prices in Russia and in the West can be a good indicator of the level of contacts between them. Before the beginning of the 18th century no coordination in the dynamics of West-European and Russian prices was observed. In the 16th and 17th centuries, the price revolution, which was gradually spreading over Europe from the West to the east including the Baltic lands, Poland, Scandinavian countries and Austria, stopped at the Russian border. As a result of asynchronous price changes during several centuries, at the turn of the 18th century the level of grain prices expressed in gram of silver turned out to be 6 times lower than in West-European countries. And this is a real indicator of the low level of contacts. Russia's economic contacts with the West were absolutely insufficient for joining the world market, but they were much more intensive than cultural ones. Hence it is evident that before the 18th century Russia's economic and other contacts with the rest of Europe were very few. But in the century that followed there was a compensatory growth of prices in Russia. In the 18th and early 19th centuries, the price rise was greater than in the West during several preceding centuries and owing to this the gap between levels shortened to twofold. In the following century, prices changed in concord in Russia and in the rest of Europe. At the turn of the 20th century the gap between their levels shortened to a possible minimum and was only 20-30 percent. And this was a solid proof of the fact that Russia had fully integrated into the world economy. The dynamics of Russian and West-European prices is a test of the intensity of all contacts between Russia and the West: before the 18th century they were insignificant, in the 18th century there was a rapid compensatory growth, in the 19th and early 20th centuries contacts were normal, and correspondingly: Russia's peripheral position as regards the West before the 18th century, Russia's process of integration into Europe since the 18th century, and Russia's inclusion in Europe in the 19th and early 20th centuries.⁷ The comparison of grain prices in Russia and Western Europe clearly shows this process (see Table 4).

Table 4: The Relationship between Grain Prices in Russia and Western Europe in 1650-1910 in Grams of Gold (prices in Russia=100)

| | 1651-1700 | 1701-1750 | 1751-1800 | 1801-1850 | 1891-1910 |
|----------------|-----------|-----------|-----------|-----------|-----------|
| Rye | 661 | 507 | 316 | 248 | 127 |
| Oat average | 556 | 482 | 308 | - | - |
| Wheat | 423 | 357 | 225 | 170 | 109 |
| Barley | 700 | 511 | 304 | - | - |
| On the average | 588 | 464 | 288 | 209 | 118 |

Source: Mironov (1971), p. 54.

⁷ Mironov (1985), pp. 45-49, 111-113, 169-188; Mironov (1971), pp. 49-61.

Throughout the entire period under study the prices of three groups of goods changed unevenly. But gradually, especially since the early 19th century asynchronism began to grow. And by 1913 in comparison with 1801-1810 prices for wardrobe goods (clothes, footwear and linen) rose 1.34 times, for foodstuffs – 1.76 times and for timber, products of woodwork and bee-keeping, handicraft wares which mainly formed a group of goods arbitrarily called “lodging”- wax, tar, rope, soup, hemp, potash, candles – 2.9 times. These differences in the price rise can be ascribed to the different dynamics of labor productivity in different branches of the national economy. Information on the dynamics of prices suggests that before the early 19th century everywhere labor productivity was changing more or less equally. But with the start of the industrial revolution in continental Europe the situation changed. By 1913, clothes and linen were produced at factories and delivered by steam transport that means at lesser costs than before. The technological (green) revolution affected Russian agriculture much less than industry, and labor productivity rose there to a less degree than in factory industry. But owing to railways and steamers the expensive delivery of heavy agricultural produce became much cheaper. In consequence of this, a price rise in agricultural produce was greater than the price rise in manufactured goods, but smaller than in goods from the lodging group. The production of these goods was almost not affected by the industrial revolution and transportation of them, timber and firewood in particular, which were mainly flouted as before, was affected poorly. That is why in this branch labor productivity changed to the least degree. Thus the dynamics of prices for some goods sheds additional light on the important changes in the character of labor in various branches of the national economy.

The analysis of price influence upon wages gives exceptionally interesting results. As is seen from Table 3, during 200 years carpenter's nominal wages rose 9.1 times and its real value, with a correction to the price rise, in all rose 1.67 times.

As to dynamics of wages, in the most general outline we can say that the purchasing power decreased during almost the entire 18th century with the exemption of 1721-1740 (at present there is not enough information for 1780-1790s to make a firm conclusion). The purchasing power of wages increased in the first half of the 19th century right until the Crimean War and the start of the Great Reforms; then during three decades, 1861-1890, decreased and later, up to the outset of World War One increased. As to the level of real wages, in the 18th century it was constantly lower than at the turn of the 18th century, on the eve of the Northern War. In 1801-1810 it returned to the level of the early 18th century and in the 1850s exceeded it by 1.67 times. In the post-reform time, the purchasing power of wages was lower than in the first half of the 19th century and only by 1913, on the eve of the World War reached the highest level of the mid-19th century – the Great Reforms' eve.

Let us fill the bare figures of price index and wages with concrete contents and answer the question: what could one buy for an average workers' wage during the last three centuries? (See Table 5 and Figure 2.)

Table 5: The Purchasing Power of an Average Monthly Wage in St. Petersburg in 1711-1913

| Commodity | Unit | 1711-1714 | 1761-1770 | 1801-1810 | 1853 | 1913 | 1985 | 2003 | |
|-------------|-------|-----------|-----------|-----------|------|------|------|----------------|------------------|
| | | | | | | | | A state sector | A private sector |
| Rye flour | kg | 156 | 237 | 489 | 644 | 763 | 628 | 364 | 909 |
| Wheat flour | kg | 72 | 110 | 236 | 324 | 373 | 628 | 444 | 1111 |
| Buckwheat | kg | 128 | 194 | 280 | 501 | 516 | 475 | 182 | 455 |
| Beef | kg | 122 | 107 | 157 | 152 | 135 | 75 | 44 | 111 |
| Oil | kg | 48 | 52 | 114 | 141 | 145 | 136 | 89 | 222 |
| Butter | kg | 31 | 33 | 74 | 78 | 37 | 62 | 44 | 111 |
| Milk | litre | 490 | 185 | - | 217 | 182 | 1068 | 364 | 909 |
| Honey | kg | 62 | 27 | 81 | 99 | 144 | | 42 | 105 |
| Sugar | kg | 7 | 10 | 18 | 41 | 129 | 248 | 200 | 500 |
| Sparlings | kg | 65 | 61 | 172 | 149 | 77 | | 25 | 63 |

| | | | | | | | | | |
|------------|-------|------|------|------|------|------|------|------|------|
| Fish | kg | 77 | 53 | - | 117 | 92 | 164 | 50 | 125 |
| Eggs* | kg | | 857 | 840 | 699 | 88 | 207 | 114 | 476 |
| Vodka | litre | 33 | 22 | 100 | 76 | 70 | 20 | 23 | 57 |
| Foodstuffs | kg | 1362 | 1142 | 1771 | 2580 | 2752 | 3712 | 2062 | 5154 |
| Boots | pair | 9 | 5 | 13 | 11 | 17 | - | - | - |
| Shoes | pair | 9 | 10 | 24 | 20 | 31 | - | - | - |
| Thin linen | meter | 61 | 55 | 116 | 176 | 101 | - | - | - |
| Coarse | meter | 43 | 43 | - | 117 | 96 | - | - | - |

*The weight of ten eggs is taken to be 600 grams.

**The Purchasing Power of an Average Wage in St. Petersburg in 1713-2003 (food, kg)
(1913=100)**

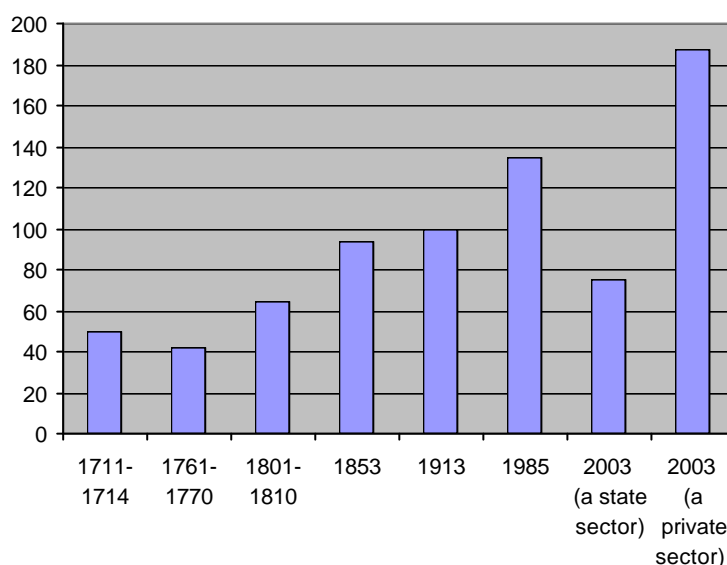


Table 5 includes the prices of few most important goods, which constituted the basis of consumption in the 18th and early 19th centuries. As it may be seen, in 1913 for a carpenter's wage one could buy more of all goods (except milk), than in the 18th century. In 1913 in comparison with 1853, as to the foodstuffs, one could buy more flour, cereals, oil, honey, sugar, fish and eggs and regards the foodstuffs of animal origin such as beef and butter as well as fish and vodka less than in 1853. Let us remind that in the 18th and the first half of the 19th centuries, sugar was luxury (instead of sugar working people used honey) and dried sparlings were a very popular ingredient for making soup (nowadays they are mainly used as a snack with beer). Thus, in 1913 as compared with 1853 one could buy a lesser amount of valuable products rich in animal protein and a greater amount of less valuable grain products. Let us take the weight of all provisions one could buy for his wages as the wage's purchasing power regarding foodstuffs. Then it turns out that in 1913 the natural value of wages was twice as much as in 1711-1714, 1/3 as much as in 1801-1810 and 6 percent greater than in 1853.

How far may we extend the application of the conclusions concerning carpenters to other workers of hired labor? In other words, what was the correlation between the wages of carpenters and workers of other trades? On the whole for the years of 1853-1910 the average daily wage of carpenter of an average qualification was 106 kopeks and that of six most important building professions – carpenter, stone-mason, house-painter, fitter, joiner and plasterer – was 117 kopeks or 10 percent more. The wage of an unskilled worker was 33 percent less.⁸ The average wage of

⁸ Rykachev (1911), p. 201.

industrial workers was mostly determined by the month and scholars calculated it by the years. In order to go over to the payment by the day it is necessary to be aware of the number of working days in months and in a year. But this value was variable and uncertain. According to my estimates, in 1885 the actual number of working days per a laborer was approximately 264, in 1904 – 268, in 1913 – 257.⁹ On the basis of average yearly wages,¹⁰ it may be suggested that in 1885-1913 in St. Petersburg the average pay per day of hired factory workers was 18-26 percent lower than that of building carpenters, and the average pay per day of unskilled industrial workers was 15 percent less than that of unskilled construction workers. However from year to year and especially from decade to decade in the construction industry and in other branches of industry the payment for labor varied rather synchronously although the wage of factory workers increased a little slower than that of construction workers: from 1720-1729 to 1911-1913 the wage of factory workers increased 5.6 time and that of construction workers – 6.4 times. This can be possibly ascribed to the fact that the by-the-day payment for labor rapidly reacted to the price fluctuation and economic situation whereas fixed wage of permanent workers changed with a delay. Besides, perhaps owing to the fact that during the entire imperial period St. Petersburg was under construction and rapidly grew, there was a growing demand for construction workers and their wages were a little higher than those of other categories of workers. These questions deserve a further study. Thus, in the 18th-early 20th centuries the level and purchasing power of hired carpenter's wages were 15-16 percent higher than those of other categories of hired workers, but their dynamics was the same. It means that the conclusions obtained on the basis of the analysis of Petersburg carpenters' wages in principle can be applied to all hired workers.

As to the state-owned workers, their position, as a rule, was much better in comparison with the laborers working at private enterprises. Their wages often failed to keep pace with the price rise but they had social guarantees – pensions, health service, and rations. They were provided with lodging, land, firewood and provisions on favorable terms. They maintained subsidiary holdings and kept cattle. And that was a great help. In case of aggravating conditions of labor and life they appealed to authorities and their demand met understanding.

However workers are far from being all the workers of hired labor and certainly not all the residents of St. Petersburg. In 1857, on the eve of the Great Reforms of the 1860s, the number of people who temporarily or permanently worked for a wage as servants, yard-keepers, stokers, cabmen, construction workers, unskilled workers and other was as great as 200 thousand, making up 40 percent of all the inhabitants of the capital (495 thousand), of which nearly 50 thousand were construction workers and only 19 thousand were factory workers. The income of all enumerated categories was comparable with the wages of carpenters. Besides, house serfs (56.6 thousand), minor non-class officials and clergymen (psalm-readers, bell-ringers, readers, etc), low rank servicemen, soldiers, and non-commissioned officers (41 thousand) from the point of view of nutrition, clothes, and lodging conditions differed little from skilled workers.

The position of burghers (48.3 thousand) and guild people (10.8 thousand) was better but not much. And only class officials (nearly 30 thousand), merchants (9.7 thousand), foreigners (11.8 thousand), priests, non-serving landlords, officers – in all 50-60 thousand people or 10-12 percent of the population¹¹ enjoined higher living standards.

In the post reform time, the social structure of the metropolitan population changed and by 1900 the income stratification was as follows: 942 thousand or 75% of the St. Petersburg's population (1248 thousand) were people of hired labor and members of their families and out of them 260 thousand were factory workers. All of them had wages comparable with those of carpenter. Lumpen-proletariat (about 5 percent) lived much worse than workers. People of free professions (5.3 percent), officials, policemen and priests (5.3 per cent), army (4.3 percent),

⁹ Mironov (199), p. 251.

¹⁰ Diakin (1972), pp. 136-1367, 185-186, 344-345, 399.

¹¹ Viatkin (1955), pp. 506-549.

bourgeoisie and rentiers (3.2% percent), pensioners (1.8 percent) – in all nearly 20 percent of the population enjoyed higher incomes.¹²

In Soviet time the wages of carpenters, workers of other trades, employees and specialists differed little. In the post-Soviet time, the incomes of carpenters approximately corresponded to the wages of skilled workers, were lower than the incomes of employees and particularly of specialists in the private sector but exceeded the incomes of hired workers in the state sectors. Hence, before 1985 the wages of carpenters reflected the dynamics of wages of other categories of workers, employees, and specialists engaged in various branches of the urban economy and after 1990 – only of workers.

Summary

In the 18th-early 20th centuries, from 1713 to 1913 in St. Petersburg as well as in the whole of Russia prices rose nearly 5.3 times and experienced a real revolution which affected all aspects of life. Unfortunately the information about the first decade of St. Petersburg existence is scarce. That is why we had to start counting since 1713-1720. If we take 1703-1710 for the initial point the price rise will be much greater since from 1701-1710 to 1711-1720 on the whole in Russia prices rose 1.5 times and in the North-West – almost 2 times.¹³ And there is no reason to suppose that in the capital it was otherwise. The entire imperial period was marked by a price rise. The fall in prices was observed only in three out of 20 decades – in 1811-1830 and 1891-1900. However the price rise was uneven. The greatest price rise – 3.1 times – occurred in the first century of capital's existence, in 1703-1810. In the following century prices rose only 1.7 times. That is why the price revolution took place mainly in the 18th century. It was caused by Russia's joining the world market and participation in the world division of labor as a country exporting raw materials and importing manufactured goods. Russia has been playing this role up to now although the range of exported goods has changed. With the outset of the price revolution the European market and West-European culture came to Russia and began to transform her in their own way.

The price revolution had very serious consequences for the capital and the whole country. First of all it affected the real wage of the working people of St. Petersburg. The analysis of the dynamics of the real wages leads to sensational conclusions for Russian economic history. In the "golden" 18th century common people lived worse than in the "iron" 19th and early 20th centuries. The entire first half of the 19th century, during the so-called crisis of serfdom, wages steadily grew and reached their maximum in the 1850s, on the eve of the abolition of serfdom and other democratic reforms. At that time the purchasing power of an average wage was 67 percent higher than in the early 18th century. With the advent of capitalism to Russia there was a decline in real wages and by the end of the 19th century they fell by 1/3. In the late 19th and early 20th centuries during the so-called crisis of Russia's autocracy and the whole socio-economic and political system (as up to now this period is characterized in the majority of textbooks on history) the purchasing power of an average wage increased and by 1913 again, as in the 1850s, reached its maximum for the entire imperial period – 167 percent from the level of the early 18th century. In short, on the eve of the World War One, after the first stage of the building of capitalism in Russia the purchasing power of an average wage reached its pre-reform, i.e. serfdom level.

In the Soviet time real wage of workers with all their falls in some years, five-year periods and the whole decades probably had a tendency towards an increase though far from such a degree as official figures stated. According to the Soviet statistics from 1913 to 1961 the real income of workers (with regard to social transfers) increased 4 times, and from 1960 to 1985 – 2.6 times more,

¹² Kochakov (1955), p. 183; *Statisticheskii ezhegodnik S.-Peterburga za 1901-1902 gg.* (1905), p. 28-42.

¹³ Mironov (1985), pp. 46-47, 230.

consequently, during the years of the Soviet power as a whole – 10.4 times.¹⁴ According to my estimates, on the eve of the downfall of Soviet system, in 1985, the purchasing power of the average wage of a skilled worker was 1.35 higher than in 1913 and 2.7 times greater than in 1711-1714.

If we fill the dry figures of the index of prices and wages with concrete contents and answer the question: what could one buy for an average wage of a skilled worker in the course of the last three centuries we will get one more sensation. On the day of celebrating the tercentenary of St. Petersburg, May 27, 2003, the majority of its residents (and evidently the majority of Russian citizens) living on their wages can buy for them less products than a skilled worker could in 1913 and even in 1853 – in the time of serfdom. Hence, the purchasing power of the wages of the majority of contemporary laborers is less than it was 100-150 years ago.

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¹⁴ *Narodnoe khoziaistvo SSSR* (1962), p. 600; *Narodnoe khoziaistvo SSSR za 70 let* (1987), p. 9.

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