

III Household Incomes

An important phenomenon of the late 1980s was the growth of nominal incomes and wages considerably in excess of price increases or any conceivable advances in labor productivity. The ensuing growing macroeconomic disequilibrium was reflected in worsening shortages and the accumulation of undesired holdings of financial wealth. By the end of 1991, the divergence of nominal incomes and prices was extreme.

This continued and accelerating buildup of excess real wages and a presumptive monetary overhang set the stage for the large jump in the price level when prices were liberalized. On the eve of the January 2, 1992 price liberalization, the size of this jump was not the only uncertainty; the behavior of wages was also in question. Would a sustained correction in the real wage follow, in contrast to the aftermath of the 1991 price reforms? If so, how would the new real wage compare with historical levels? Would the price burst trigger a wage-price spiral that the monetary authorities might feel compelled to validate? These questions, as well as the intersectoral and overall distribution of income and poverty are considered in this section. Real wage developments in Russia are also compared with the recent experience of other economies that have undergone comprehensive liberalizations.

Wages and Other Incomes

Methodology

Two main types of evidence are available from Goskomstat for the study of income developments: average wages and the so-called money incomes of the population—a measure of household income. The average wage data have their origin in the total wage fund figures reported by enterprises to Goskomstat. This series, which traditionally was compiled only annually, became available quarterly, and then monthly, in 1991. In addition to an overall national average, average wages in various sectors of the economy are published.

The household incomes data represent a broader concept, including, for example, pension payments,

stipends, family allowances, and interest income. These data are available annually as part of the Goskomstat table, “Money Incomes and Expenditures of the Population,” which also permits calculation of the saving rate of households. Household income on an annual frequency is computed by aggregating direct estimates of the various types of incomes. On a monthly frequency, however, the published money income figures are the sum of estimates of household saving and of expenditure. Although the monthly incomes data are of considerable interest for analyzing events in 1992, their reliability is much less certain, as discussed below. Also, in recent years the monthly data have at times been strongly influenced by special lump-sum “compensation” payments to households’ deposits (for example, in April and July 1991, and in April 1992—see Table 11, footnote 2). Statistics on income distribution (and on the structure of consumer expenditures) are based on a monthly household budget survey conducted by Goskomstat on a sample of almost 50,000 units.

The Goskomstat wage and household incomes data differ significantly in how they were influenced by the so-called cash shortage that became very acute in the first half of 1992, when numerous reports indicated that many workers were receiving less income than promised by their employers. Almost all Russian workers (except the military) are used to being paid in cash, twice a month. However, because of the cash shortage, some enterprises were unable to obtain from the banking system the currency needed to make all wage payments. This situation led, in some cases, to the relatively new phenomenon of enterprises making transfers to the savings bank accounts of employees as a substitute means of payment. A worker receiving such a transfer, however, may also have been unable to convert it into cash.³⁶ Of course, the failure of some enter-

³⁶ Cash has traditionally been the almost exclusive means of payment for households in Russia. Therefore, these aspects of the cash shortage may have been important in restricting the demand for consumer goods.

prises to make promised wage payments was attributable not to the cash shortage but rather to their own financial difficulties.

Goskomstat wage data reflect wages earned, rather than wage payments actually received, during a given period. As discussed below, the difference between these concepts was significant in the first half of 1992. In contrast, the money incomes data in principle correspond to payments actually received, but are probably subject to greater measurement error.

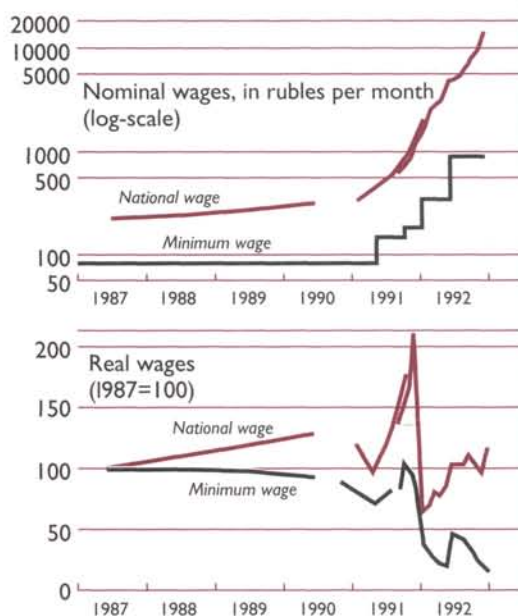
In analyzing incomes data, the focus here is their rate of growth relative to that of prices. The implied statistical or measured real wage is to be distinguished, especially prior to 1992, from the real wage concept used in studying market economies, and which can be considered an indicator of consumer welfare if wages and incomes in the form of money are freely convertible into goods at market-clearing prices. This was not so in the "shortage economy" that prevailed in Russia before January 1992.³⁷ Indeed, the statistical real wage measured before that date is of interest more as an indicator of macroeconomic disequilibrium than as an indicator of consumer welfare.

Finally, in constructing a real wage series with a base year of 1987, Goskomstat's retail price index (RPI) is used through 1991; beginning in 1992, the urban CPI is used. Although the RPI is imperfect (as discussed in Section II), the limited flexibility of the price level during most of the period prior to 1992 implies that variation owing to error in measuring the price level is likely to be small in relation to the magnitude of wage inflation. Thus, the main findings of this section are probably robust to the price level mismeasurement occurring before the 1992 price liberalization.

Developments

The growth of average wages began to outpace significantly the growth of retail prices in 1988, resulting in a steady increase of the statistical real wage (Chart 7). By 1990, average real wages stood 27 percent above their 1987 levels. The price reforms of early 1991 abruptly canceled this buildup, lowering the national average and industrial real wages approximately to their 1987 levels in the second quarter. However, although retail prices were quite stable for some time after the April 1991 price reform, wage inflation continued: the national aver-

Chart 7. Nominal and Real Average Wages¹



Sources: Goskomstat of the Russian Federation; and authors' estimates.

¹Annual data for 1987–90, quarterly for 1991, monthly for September 1991–December 1992; not adjusted for arrears on wage payments.

age wage rose 30 percent in the third quarter of 1991, reversing the recent real adjustment. In the final quarter of the year, retail price inflation accelerated to 16 percent, but was again outpaced by a 64 percent surge in the average wage (73 percent in industry). By December 1991, statistical real wages were more than twice their 1987 levels.³⁸

In early 1992, nominal wage growth continued, with the national average wage rising 20 percent in January (41 percent in industry).³⁹ The statistical real wage, however, fell precipitously with the January price burst, by roughly two-thirds. As Chart 7 makes clear, a large part of this decline represented a reversal of increases experienced only in late

³⁸ This extreme outcome can be only partially explained by the seasonal bonus payments to wage earners in December.

³⁹ A point sometimes overlooked is that if an accumulated monetary overhang is sufficiently large, its elimination may require a jump not only in the price level but also in the average wage. Only by coincidence would the price level jump required to eliminate the monetary overhang also reduce the real wage by exactly the required amount.

³⁷ As discussed above, although shortages were still observed in Russia in 1992, they may be considered more microeconomic in nature, at least in contrast to the situation before January 1992, which clearly was one of excess aggregate supply of financial assets and excess aggregate demand for goods.

1991, and only in a context of widespread shortages and an unsustainable rundown of retail inventories. Nevertheless, statistical real wages dropped below 1987 levels. Furthermore, in contrast to the experience after the (largely administered) price increases of early 1991, the January 1992 decline in the statistical real wage was not completely reversed. The real wage did grow strongly, however, after the January price burst, with overall real wages rising at an average monthly rate of 10 percent from January through June. By June 1992 the relationship between the national average wage and consumer prices was approximately the same as in 1987; a broadly similar real wage level was subsequently maintained through the end of 1992.

This evidence appears to contradict numerous reports that as a result of price liberalization in early 1992 the standard of living of most Russian citizens had fallen to levels not seen in recent memory. In this connection, several points addressed later may be especially relevant: first, the average level of income may conceal significant developments at the lower end of the income distribution; second, income after taxes—including the inflation tax—might not have moved in tandem with average wages. A third factor concerns wage and other arrears.

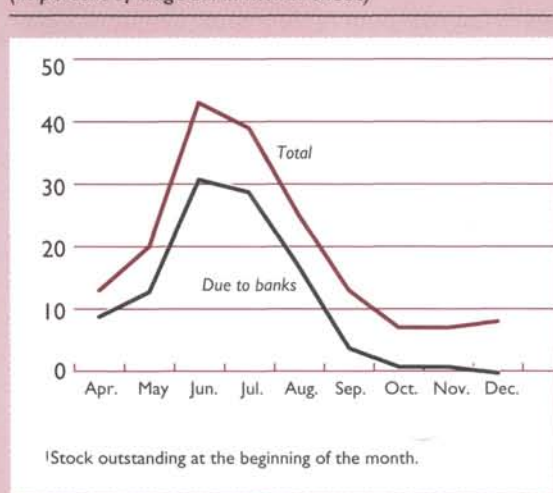
Wage Arrears

Actual wage payments were less than indicated by the wage data analyzed here, which do not reflect wage arrears. Monthly information on the latter is available from April 1, 1992 onward (Table 12).⁴⁰ The stock of arrears grew rapidly in the second quarter of 1992, and peaked toward the middle of the year. Its growth was mainly associated with the increasingly acute shortage of cash. The volume of arrears outstanding fell swiftly as credit expansion accelerated and notes of larger denomination were introduced in the summer. In industry, the total stock of wage arrears in real terms (using consumer prices as a deflator) had declined to about one-fifth of its peak level by the last quarter of 1992 (Chart 8). The remaining arrears were attributable to the financial distress of enterprises rather than to the cash shortage. The share of the industrial sector in the wage arrears recorded in industry, agriculture, and construction peaked in mid-1992, and declined thereafter. By end-1992, wage arrears were still recorded in every sixth industrial firm and in every fifth enterprise in construction and agriculture.

The implications of wage arrears for the level of actual wage payments, as opposed to wages ac-

**Chart 8. Wage Arrears in Industry,¹
April–December 1992**

(In percent of wage bill in month ended)



crued, can be tentatively quantified for industry. In the second quarter of 1992, only 86 percent of the wages due were paid out in this sector, with a trough in May (75 percent). The inflation tax borne by wage earners on these arrears in the second quarter amounted to about 3 percent of the wage bill.⁴¹

Sustainable Wage Level

Although the appropriate level of the real wage in Russia is difficult to determine, the following observations may be made. There is some disagreement in the literature on whether substantial macroeconomic disequilibrium (in the form of a monetary overhang and excess real wages) had been long standing or whether it had developed only in the late 1980s.⁴² If the latter is true, the 1987 base year considered here seems a reasonable benchmark, given the strong divergence of measured wage and price growth that began in 1988. Supposing that in 1987 the real wage per unit of aggregate output was approximately appropriate, subsequent real wage developments may be considered in conjunction

⁴⁰ Arrears on wages, pensions, and other payments to households were already reported as a serious problem in late 1991.

⁴¹ This is an ex post measure, ignoring the costs associated with uncertainty about wage payments. It is also an aggregate measure, abstracting from likely significant variation across enterprises. Finally, it does not reflect the costs implied by binding liquidity constraints.

⁴² One piece of evidence in support of the former view is that according to Goskomstat prices of agricultural products in *kolkhoz* markets were almost two and a half times as high as those in state stores already in the mid-1980s.

with developments in both aggregate output and employment.

Clearly, the rise of the measured real wage from 1987 through December 1991 was far in excess of any conceivable improvement in aggregate labor productivity. In fact, rough calculations of productivity suggest a substantial cumulative decline (reflecting mostly the abrupt fall in output that began in 1990–91). The drop in the real wage that occurred in January 1992 appears to have more than offset this decline. However, the recovery of the real wage to its 1987 level, by June 1992, together with the further decline in 1992 of all indicators of aggregate output, suggests that by mid-1992 the real wage per unit of output was again significantly above its benchmark 1987 level. Since output continued to decline in the second half of 1992, and since the real wage on average remained above its 1987 base, the same conclusion holds *a fortiori* for the end of 1992.

One important caveat with respect to the norm defined in this way is that an increase in labor's share of national income during the regime switch is not necessarily inappropriate. The decline in the role of public consumption (most notably military procurement) may make room for additional private consumption. Similarly, the traditionally high share of investment and particularly of stockbuilding in national output may be considered a reflection of the inefficiencies of central planning. If these inefficiencies can be reduced, a given level of aggregate output will be consistent with a greater share for labor income and private consumption. Therefore, the sustainable level of wages may be higher than the apparent productivity-adjusted 1987 benchmark.

Comparison with Other Transition Economies

Chart 9 depicts real wage developments, since 1987, in four transition economies as well as Russia. It is not meant to imply that real wages in 1987 represented equilibrium values in any or all of these economies, but simply to allow a basic comparison of real wage developments during the transition. For example, in Bulgaria and Romania, the increase in real wages prior to general liberalization of prices was much smaller than in Russia; in the former Czechoslovakia, almost no divergence of wages and prices had occurred. In each of these three cases, however, real wages fell steeply in early 1991 following price liberalization.

The Russian experience appears to be closer to that of Poland, particularly with respect to the much larger growth of the statistical real wage prior to general price liberalization. In Poland, however, the decline from the peak real wage value was less abrupt, as it began with the partial liberalization of prices in August 1989. At its lowest point just after

the comprehensive January 1990 liberalization, the Polish real wage was about three-fourths of its 1987 level; the corresponding low point for real wages in Russia was fairly similar, at about 75 percent in industry and 65 percent overall. In Russia as well as in Poland, the former Czechoslovakia, and Bulgaria, real wages recovered significantly within the six months following general price liberalization, after which they remained relatively stable. Only in Russia, however, did the average wage recover to beyond its real 1987 level, whereas the cumulative output drop was at least as severe in Russia as in any of the comparator countries.

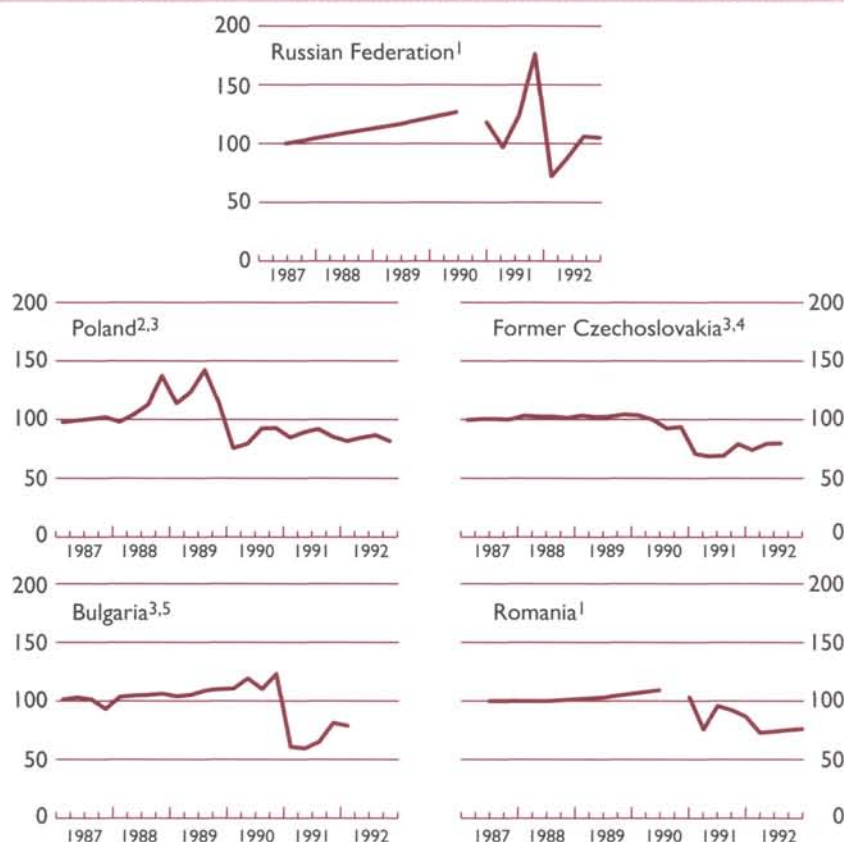
Wage developments can also be compared across countries by computing wages in terms of U.S. dollars (Chart 10). In January 1992, the average wage in Russia, valued at the interbank exchange rate, was only \$7 a month, compared with \$65 in Poland in January 1990. A strong real appreciation then followed, but the average Russian wage peaked in June 1992 at only about \$40 a month, and fluctuated in the second half of 1992 between \$25 and \$40. In contrast, the average dollar wage rose steadily in Poland to \$100 by mid-1990 and to \$160 by end-1990. In Bulgaria, dollar wages more than doubled after declining abruptly at the time of price liberalization, to about \$60 one year later. In the former Czechoslovakia, dollar wages also increased substantially at the same stage of the transition, to about \$160 in late 1991. In Romania (where the temporary persistence of a system of multiple exchange rates complicates the analysis), dollar wages evolved in a more convoluted fashion, but hovered at about \$50 one year after price liberalization. In all comparator countries except Romania, the apparent trend increase in the dollar wage characterizing the first year of the transition continued in the next year. Such comparisons (or comparisons with wage levels in countries outside Central and Eastern Europe) do not, however, control for differences with respect to nonwage entitlements benefiting workers, which are particularly important in Russia (housing privileges, subsidized food, child care, vacations, etc).⁴³ Moreover, the exchange rates used in such comparisons may not be strictly comparable over time and across countries, and deviations from purchasing power parity presumably also vary considerably within the sample. Also, the wage data used here are not deseasonalized.

Incomes Policy

Incomes policy was considered an important component of the stabilization programs of the Central

⁴³ These nonwage benefits declined less than wages in 1992 in Russia.

Chart 9. Real Wage Developments: International Comparison
(1987=100)



Sources: IMF, *International Financial Statistics*; Goskomstat of the Russian Federation; Polish Central Statistical Office; and Bulgarian national Bank.

¹Average wage in the national economy.

²Average wage in the main areas of the socialized sector (excluding agriculture and state organs).

³Seasonally adjusted.

⁴Wage in the socialized sector (excluding agricultural cooperatives).

⁵Average wage in the state sectors.

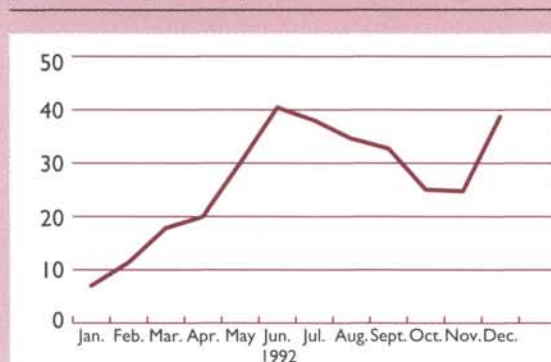
and East European countries in Chart 9.⁴⁴ Because the managers of state enterprises might otherwise lack incentives or the ability to restrain wage increases, such a policy was thought particularly important, both to avoid gradual decapitalization of enterprises through excessive real wages, and/or to provide a nominal anchor for the economy. In Poland, for example, wage bill ceilings were set,

and payments in excess were subject to heavy penalties.⁴⁵

The Russian authorities opted for a much weaker incomes policy, whereby the wage bill in excess of four times the minimum wage (times the number of employees) could not be deducted in calculating the taxable profits of an enterprise. Clearly, the effec-

⁴⁴ See, for example, Bruno (1992).

⁴⁵ Enterprises were permitted to choose between ceilings on the average wage and ceilings on the wage bill; most chose the latter.

Chart 10. Dollar Wage in 1992(In U.S. dollars per month)¹

Sources: Goskomstat of the Russian Federation; and Moscow Interbank Currency Exchange.

¹Average wage in the national economy divided by the average monthly interbank exchange rate.

tiveness of such a policy depends on both the profit tax rate and the setting of the official minimum wage. The setting of the minimum wage was fairly restrictive. After a 90 percent increase in January 1992, the monthly minimum wage was held constant at rub 342, despite rapid inflation, until May 1992, when it was raised to rub 900; this level was then maintained through the rest of the calendar year.⁴⁶ On the other hand, the prevailing profit tax rate of 32 percent does not seem prohibitive. Another factor that may have weakened the effectiveness of the policy was that it was not binding on those enterprises that would have earned negative profits even if they had paid an average wage equal to only four times the minimum wage. Moreover, and perhaps more important, the effectiveness of the policy also depended on the perceived “hardness” of the budget constraints faced by enterprises. If enterprises could borrow from the banking system at negative real interest rates, this scheme would be unlikely to deter them from paying “excessive” wages.

Indeed, Russia’s wage policy did not induce enterprises to keep most wages below four times the minimum wage. By April 1992, just before the minimum wage was increased, the average wage in industry had reached 11 times the minimum wage (in the final quarter of 1991, it had been less than 6 times the minimum wage). By December 1992, the

average wage in industry was more than 20 times the minimum wage. The policy appears to have raised revenue for the Government, but it evidently did not provide a nominal anchor. Monthly wage inflation ran at an average of 28 percent through the first half of 1992, and at 21 percent in the second half.

Money Incomes

It is also of interest to consider, in addition to average wages, a broader measure of household incomes (Table 11). Growth rates of money incomes and average wages had been similar during 1988–90.⁴⁷ Not surprisingly, given the large share of wages in money incomes, the growth of money incomes also accelerated in 1991, with the largest part of the increase occurring in the final quarter. However, money incomes rose even faster than wages in 1991, possibly in part as a result of the various types of compensation granted to families with young children, students, pensioners, and savers in the context of the April 1991 price reform. In the first half of 1992, rapid growth of nominal household incomes continued, but the 1991 pattern was reversed: the growth rate of money incomes fell significantly behind that of the average wage, as an abrupt divergence occurred in January 1992 that was not later offset. With the January price burst, measured real money incomes plummeted to only 51 percent of their 1987 level.

The initial shock to household income thus appears to have been considerably greater than indicated by the average wage data. Wage arrears are one factor behind this divergence, since Goskomstat money incomes data are meant to reflect only actual payments. Furthermore, anecdotal evidence suggests that payments arrears may have been proportionately more significant for nonwage income. With the clearing of the bulk of the arrears during the summer, a narrowing of the divergence of the wage and household incomes series would have been expected. Indeed, the growth rate of money incomes averaged 26 percent a month in the second half of 1992, notably exceeding that of wages.

A second reason underlying the slower growth of money incomes than of wages is the slower expansion of some categories of nonwage incomes in 1992. On average, wages rose elevenfold in 1992 over 1991, while pensions increased eightfold and student stipends only fivefold.

Finally, the divergence in 1992 of the household incomes and wage series is likely to have resulted also from measurement problems imparting a down-

⁴⁶ The minimum wage was increased to rub 2,250 in January 1993.

⁴⁷ See Table 8 in International Monetary Fund (1992).

ward bias on the monthly money incomes series. As noted, these are derived by Goskomstat as the sum of estimates of household saving and household expenditure. The latter, which is mainly based on reports of state retail organizations, was probably underestimated in 1992, implying a corresponding underestimation of incomes.

Sectoral Income Developments

Wage Differentiation Across Activities and Firms

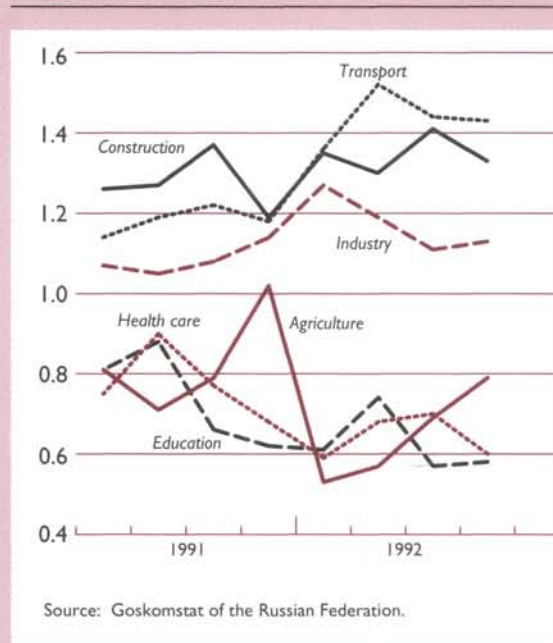
A pattern emerged in sectoral wage developments (Table 13 and Chart 11) that implied a marked widening of the traditional sectoral distribution of income. Sectors that historically exceeded the national average wage tended to experience faster wage growth, while growth was slower in sectors with wages traditionally lower than the national average. For example, industrial wages exceeded the national average by 7 percent in 1987 and by 9 percent in 1991, but by 15 percent in 1992. In the transport sector, the relative wage rose from a traditional 119 percent in 1991 to 144 percent in 1992. On the other hand, wages in agriculture, which in 1987 equaled the national average, fell from 88 percent of the national average wage in 1991 to 71 percent in 1992. In the sciences, the decline was from 104 percent in 1987 to 93 percent in 1991 and to 74 percent in 1992.

Within the industrial sector, relative wage dispersion widened even more. For example, wages in the oil extraction, coal, and gas sectors, which on average all stood at about 160 percent of the national average in 1987, rose respectively to 300, 290, and 380 percent of the national wage in 1992. In December 1992, the average wage in the gas industry came close to rub 75,000, that is, 460 percent of the average wage in the economy, while the average wage in the oil extraction sector exceeded rub 53,000 (or 330 percent) and the average wage in the coal industry was more than rub 39,000 (or 240 percent).⁴⁸

Although the information available is limited, a Goskomstat survey conducted in 1991 suggested that wages of cooperative sector workers and employees at joint ventures exceeded by over one-third those of their counterparts in state enterprises (Gimpelson, 1993). Partial evidence for the early months of 1992 indicates an even wider spread between wages in the emerging private sector and wages in state enterprises.

⁴⁸ The sharp rise in relative wages in the energy sector is at variance with the objectives of reversing the decline of investment and raising tax revenues from this sector, which were often used to justify the increases in energy prices.

Chart 11. Wage Structure Across Sectors
(Ratio of sectoral wage to national average wage)

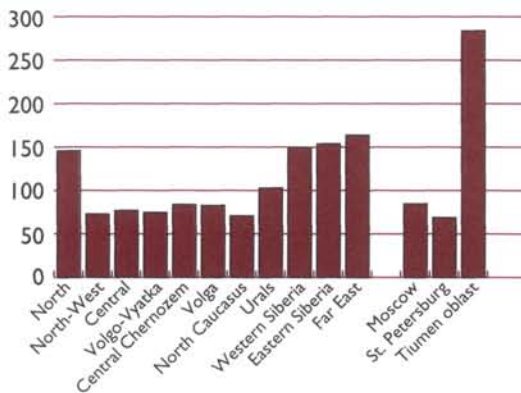


Regional Wage Dispersion

Like prices, nominal wage levels displayed a significant degree of geographical dispersion in 1992. Chart 12 illustrates the disparities across regions, and shows that wages were roughly 50 percent or more above the national average in the North, Siberia, and the Far East. In part, this resulted from institutionalized wage supplements granted to workers in these areas.⁴⁹ Consistent with wage differentiation across branches of activity, wages were even higher in the oil-producing Tiumen *oblast* (close to three times the national average). The growth rates of nominal wages also differed substantially across areas (from a year-on-year increase of 7 times in the Dagestan Republic to an increase of 17 times in the Tiumen *oblast*), suggesting that geographical differences became more pronounced in 1992. In real terms, however, the regional disparities may be less pronounced than the nominal magnitudes suggest, since, as discussed earlier, price levels also vary considerably across areas and are relatively high for many goods in the North, Siberia, and the Far East.

⁴⁹ See Barr (1992), p. 50.

Chart 12. Regional Wage Dispersion in 1992
(Wage level in percent of national average)



Source: Goskomstat of the Russian Federation.

Minimum Wage

The minimum wage had averaged about 35 percent of the national average wage during 1987–89, but declined to 24 percent in 1991 and then to only 11 percent in 1992. In significant contrast to the extraordinary buildup of overall average wages and household incomes, the minimum wage had failed to grow at all in real terms from 1987 through 1991 (Chart 7). Although it was raised from rub 180 to rub 342 in January 1992, the jump in the price level in that month brought it to only two-fifths of its real 1987 level. Unchanged through the first four months of 1992, it had by April fallen to one-fourth of its real 1987 value. Beginning in May, the minimum wage was raised to rub 900 in certain sectors; this increase applied to all sectors as of July 1. Despite this increase, it averaged only a third of its real 1987 level during the second half of 1992.

Although the relative and absolute positions of those receiving the official minimum wage deteriorated sharply, such individuals represented a very small share of total employment in 1992.⁵⁰ However, the official minimum wage is also of interest for its various benchmark roles: for example, as stipulated in the October 24, 1991 law, “On Indexation of Monetary Incomes and Savings of Citizens in the Russian Soviet Federated Socialist Republic,”

⁵⁰ Moreover, survey evidence indicates that 90 percent of the minimum wage recipients in urban areas are not the main breadwinner in the household.

the minimum pension and other social benefits have been linked to the minimum wage;⁵¹ also, as discussed earlier, the minimum wage plays a role in determining the excess wage tax liability of enterprises.

Budgetary Wages

Wages in the budgetary sphere were increased in discrete steps: by 90 percent in December 1991, 45 percent in February 1992, and 80 percent in June, implying that a significant deterioration relative to other wage earners occurred between December 1991 and the second quarter of 1992. The wages of those employed in the budgetary sphere, as occurred with the minimum wage, may not have surged in 1991, leaving these employees without a cushion to absorb the 1992 price burst. Strongly suggestive of a relative deterioration in the position of budgetary sphere workers was the fact that 98 percent of all strikes that occurred during the first five months of 1992 were in the so-called nonproductive sphere, with nearly 90 percent occurring in April and May.⁵²

A “unified rate scale” for budgetary wages was introduced in October 1992, involving a base wage subject to periodic adjustment, and a set of coefficients determining wages at the successive echelons as multiples of the base wage. The base wage, which is the minimum wage in the budgetary sphere, was raised in the process by 50 percent, to rub 1,350 a month. The next increase, by one-third and to rub 1,800, took place in December 1992.⁵³ The cumulative increase in budgetary wages was much smaller, from the fourth quarter of 1991 to end-1992, than the cumulative rise in the average economy-wide wage (10 versus 19 times comparing December 1992 with November 1991).

Pensions

Pension payments have traditionally constituted a significant portion of total household incomes; they amounted to 13 percent of money incomes in 1990. As noted, the minimum pension was linked to the official minimum wage. Indeed, the minimum pension used to be the one received by a large proportion of pensioners, though often with supplementary payments in 1992 (special compensation payments to pensioners amounted to rub 200–300 a month through July 1992, and to rub 420 a month from

⁵¹ A detailed description of the system of cash benefits as of mid-1992 is provided in Barr (1992).

⁵² This may also have been related to the accumulation of larger wage arrears in the budgetary sector.

⁵³ It was raised by 25 percent, to rub 2,250, in February 1993.

August to October 1992). Thus, although the minimum wage—and minimum pension—remained at rub 342 a month in April 1992, the average pension in that month amounted to rub 738, including supplementary payments. In May 1992, the minimum pension was raised to rub 900, and all pensions were revalued (by half a percentage point for each year of seniority). As a result, the average pension increased to rub 1,383 in that month. The percentage increase in the average pension from late 1991 to mid-1992 was similar to that of the overall average wage. The critical difference was that with pensions, no cushion had been accumulated prior to the January price burst: pension increases had not kept up with wage increases in 1991.⁵⁴ Furthermore, arrears on pension payments may have been relatively larger than arrears on wage payments in the spring of 1992.

For the second half of 1992, the minimum pension was raised (ahead of the minimum wage) to rub 2,250 in November.⁵⁵ In real terms, the minimum pension (including supplementary payments) stood at somewhat over half its 1987 level throughout 1992. Therefore, it declined much less than the minimum wage, but much more than the average wage in the economy. Finally, owing to the revaluation that took place in the spring of 1992, the average pension probably declined less than the minimum pension in 1992.

Income Distribution

The evolution of the distribution of the population by income brackets is presented in Table 14. The distribution as a whole naturally shifted over time as the price level and nominal incomes rose, with the mode for income per capita increasing from less than rub 200 a month in 1990 to almost rub 350 in 1991, to close to rub 1,100 in the first quarter of 1992, and to over rub 4,500 by November 1992. Income dispersion measures point to a widening of income disparities since 1991. The ratio of the average per capita income in the highest decile to the average per capita income in the lowest decile rose steadily from 5.4 in 1991 (and 4.8 in 1990) to 8.7 by December 1992. The Gini coefficient also increased almost monotonically from 0.26 in 1991 (and 0.23 in 1990) to 0.33 by December 1992.⁵⁶

⁵⁴ This conclusion follows from the historical link of most pensions to the minimum wage, whose real behavior was discussed above.

⁵⁵ The minimum pension was further increased to rub 4,275 in February 1993.

⁵⁶ See Center of Economic Analysis and Forecasting (1993, pp. 93–94). Such measures cannot be accurately computed on the basis of the highly aggregated information presented in Table 14. They were reportedly derived directly from the raw data.

The underlying data capture only officially recorded incomes, however. If other income sources grew faster, or differently across groups (as is likely), actual income distribution profiles may have been significantly different.

Summary information on the distribution of wages is published occasionally. As the sectoral wage data suggest, the evidence indicates increasing wage dispersion: by September 1992, the average wage of the highest decile of wage earners had risen to eleven times that of the lowest decile, compared with only six times in September 1991, and almost five and a half times in 1991 as a whole. Preliminary information suggests that the dispersion widened further in the last quarter of 1992.

Poverty

The sharp drop in average measured real incomes following price liberalization suggests that the proportion of the population below any fixed definition of the poverty line increased in early 1992. Indeed, Goskomstat (1992) reported that the proportion of the population receiving incomes less than the minimum income level rose from 35 percent to 50 percent between 1990 and end-1991, and to 80 percent in January 1992. However, an alternative figure was cited by some government officials of a monthly “physiological minimum” of rub 550 in January 1992, implying that about 20 percent of the population was then living below this definition of the poverty line.⁵⁷

Several problems arise in quantifying poverty developments. On the one hand, the sample used in the traditional measure of poverty excludes households other than those of working or retired workers and employees, implying a likely understatement of actual poverty levels.⁵⁸ On the other hand, the composition of the associated minimum consumption basket corresponds to a certain desirable standard of living rather than to some notion of a subsistence level, thus entailing an overstatement of poverty.⁵⁹

A new minimum consumption basket was developed in 1992 by Goskomstat and the Ministry of Labor, in collaboration with the World Bank and the World Health Organization, which was *inter alia* intended to help identify the recipients of targeted

⁵⁷ See the interview with Yevgeniy Gontmakher in *Rossiyskaya Gazeta*, February 25, 1992.

⁵⁸ Mitigating this effect somewhat is the likelihood that such a sample also ignores various high-income groups.

⁵⁹ See Barr (1992). This bias may have been somewhat offset, however, by the apparent exclusive use of state store prices in valuing the items of the minimum consumption basket, even for those that were largely unavailable at state stores.

social assistance programs.⁶⁰ It was based on a different diet (less meat and milk, and more bread, vegetables, and fruits), a higher share of expenditures devoted to foodstuffs, and a more representative sample of households.

The cost of the minimum monthly food basket defined in this context amounted to rub 694 in April 1992 on average (rub 734 for working-age males, and rub 580 for pensioners).⁶¹ One way to infer an overall cost of subsistence is to evaluate the share of food expenses in the relevant household group. Using 80 percent, as suggested by Popkin, Mozhina, and Baturin (1992), implies an average cost of subsistence of about rub 870 in April 1992. Using 68 percent, as did the Ministry of Labor (*Trud*, October 17, 1992), implies an average cost of subsistence of about rub 1,100. These magnitudes compared with an average wage in April 1992 of rub 3,052, an average per capita income of close to rub 1,900,⁶² and a minimum wage of rub 342 (revised to rub 900 from May).⁶³ In August 1992, the cost of the minimum monthly food basket amounted to rub 1,276 and the implied cost of subsistence to either rub 1,595 or rub 1,868 (depending

on the share allowed for food).⁶⁴ By November 1992, the cost of the minimum monthly food basket had reached rub 2,356, and the implied cost of subsistence rub 2,945 and rub 3,450, respectively.⁶⁵ Thus, on this measure, between one-fourth and one-third of the population was living below the poverty line toward the end of 1992.

The disaggregated results of the first survey based on the new minimum consumption basket indicate that the incidence of poverty was highest for households with three or more children, single-parent, female-headed households with young children, and households affected by unemployment or with a disabled family member, as well as for Russian refugees from other states of the former Soviet Union, released prisoners, and the homeless.

Welfare comparisons between the periods before and after price liberalization are difficult, not least because real incomes prior to 1992 were overstated because money incomes were not freely convertible into goods and services and shortages may not have uniformly affected the population. For example, pensioners or others who had more time available to stand in queues were relatively better off before price liberalization than their money incomes suggested.

⁶⁰ See Popkin, Mozhina, and Baturin (1992).

⁶¹ The cost of an alternative 19-item minimum food basket defined for an able-bodied working male of 45, and monitored by the Center of Economic Analysis and Forecasting, amounted to rub 883 in April 1992.

⁶² Excluding the deposit compensation that became available in that month. This series is likely to be substantially downward biased.

⁶³ In April, 8.5 percent of the population received a per capita income of less than rub 900, and 17.9 percent an income of less than rub 1,100; 2.4 percent of wage earners received a monthly wage of less than rub 600, and 10.8 percent a monthly wage of less than rub 1,200.

⁶⁴ In August, 16.6 percent of the population received an income of less than rub 1,500 and 31.5 percent an income of less than rub 2,000. The high concentration of incomes in the rub 1,500–2,000 bracket implies that the estimate of the percentage of “poor” in the total population will be very sensitive to the choice of the share of income to be spent on food.

⁶⁵ In November, 23.6 percent of the population received an income of less than rub 3,000 and 32.5 percent an income of less than rub 3,500.