

Russia Income Dynamics Study- Divestiture of Housing in Russia*

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1. Introduction

Restructuring of enterprises in Russia has always been a task of gigantic scale. The scope has been unparalleled compared to problems in other transforming countries, given the size of the Russian economy and almost complete control over the economy exercised in the past by the state. Moreover, the Russian government was painfully slow in delivering even basic macroeconomic stability. Nevertheless, in 1996 macro-economic stabilization finally took place in Russia, and while the macroeconomic situation is still far from normal, with GDP decreasing by about 6-7% in 1996 and stagnating in the first quarter of 1997 and with annual inflation running at about 15%,¹ it is more and more the microeconomic issues which pose the greatest obstacle to the economic development in Russia.

The most prominent role among microeconomic problems has been acquired by the lasting problem of under-performing firms which have been unable to adapt to changed economic environment and to the loss of a soft-budget constraint so long provided by Soviet governments. However, there are special reasons which have contributed to the firms' anguish. Enterprises in the Russian society have had one additional and special role, unknown to profit oriented firms - they have been providing many social services, which are, in a market economy, usually supplied by a specialized service sector. Expenditure on social benefits and services by Russian firms amounted to about 4.1% of GDP in 1992 and 3.3% in 1993. Firms are estimated to have contributed at least a quarter of total expenditure on health, education and cultural services in 1993.² These social services embrace various fringe benefits (kindergartens, subsidized holiday resorts, health facilities), but the provision of housing has distinguished itself as the most important among these social services. No less than 59% of all firms were providing housing (or subsidized it) in 1984. This number decreased only marginally to 55% in 1991. The importance of the housing provision might be better highlighted by the fact that among large firms (with more than 1,500 employees) the share of firms providing housing was substantially higher, reaching 100% for firms with more than 10,000 employees.

According to Commander et al. the financial burden of the social services has been quite high, as well. The cost of providing social services averaged 18% of the wage fund in 1994 and the cost reached even 36% of the wage fund among newly privatized enterprises. The most burdened were firms in such industrial branches as machinery, metallurgy or production of construction materials. This structure points to the lasting phenomena of "company-towns" in Russia, where whole cities were build around a single enterprise and

¹ One has to be very careful in assessing the aggregate numbers. The fall of inflation might be caused more by rising wage arrears than by a sound monetary policy. However, a qualified appraisal of the Russian macroeconomic situation is well beyond the scope of this paper.

² The numbers are taken from Commander, Lee, Tolstopiatenko (1995).

where it has been extremely difficult to separate the authority of municipality representatives from the firm supporting the whole city. In such cities, any intervention to a firm performance has necessarily great consequences for a city itself and therefore has been always accompanied by social regards.

Housing provision and housing subsidies, together with utility and maintenance subsidies, have constituted a crucial part of the social services provided by firms. Therefore, a divestiture of housing in Russia represents a major infringement of the firm ownership rights and it substantially changes the way in which firms have been used to function. Firms are often keen on divesting unprofitable housing facilities, as these represent a net burden for firms. It is the case especially as the housing facilities are very difficult to use as a tool for attaching workers to the firm. The share of tenants with no relationship to the firm is very high and has been increasing for last years. However, divestiture apparently shifts a major burden and responsibility to municipalities which are bestowed with often extremely neglected housing stock occupied by tenants not accustomed (and sometimes not able) to pay rents which would cover at least a significant part of the cost. Therefore, municipalities often try to obstruct the divestiture and to avoid the responsibility for providing housing. Whether this resistance will be abated by the current government policies aimed at increasing the cost recovery and at creating a necessary social security system of housing allowances remains a crucial question in the process of housing divestiture in Russia.

The divestiture of housing could endanger the consumption habits of the Russian households, as they spend an extremely low proportion of their incomes on rents - only about 2%. Moreover, firms have been subsidizing not only rents but also prices of utilities (electricity, gas, heating, water). Therefore, increase in this cost would strengthen the rent increase and could lead to a sharp decrease in the living standards. As we show later, the impact of utility price increase is much more opaque in its impact on wages and its consequences are therefore much more difficult to predict.

From the macroeconomic point of view, the critical issue is the process of infiltrating higher housing cost for households to higher wages. The decisive point is the dynamics of wages under the divestiture program. What part of the saved housing cost will be passed to workers in the form of higher wages? What impact will an increase in cost recovery for housing have on wages and how much will workers be able (or willing) to pay for housing previously provided by firms? And, finally, what are the likely consequences of the divestiture for inflation?

This paper aims at addressing at least some of these macroeconomic questions. We employ data on the Russian housing reform and income of Russian households. We also look at the more detailed data on the rent increases, housing expenditures and wage dynamics in

the Czech Republic to get an estimate of the future development in Russia. Then we bring in an analysis of income dynamics in the context of the Russian housing reform.

The paper is organized as follows. First, we very briefly describe the current stage of the housing reform in Russia, mainly so as to assess the possible future rent increases. Then we continue with a description of the Czech housing reforms and their impact on wage dynamics in the framework of a transition economy. The following part is devoted to an estimate of the likely consequences of the housing divestiture in Russia on rents, wages and inflation, given certain assumptions about GDP growth rates.

2. Housing Reform in Russia

Given the initial extremely centralized housing market in Russia, we can describe the opening of the housing market as fairly energetic. Already in June 1991, the massive privatization of housing stock began with the privatization of state-owned flats to registered tenants. Housing privatization has transferred the full set of ownership rights, including the right to sell the flat on the open market. Privatization has shifted almost a third of the eligible housing stock to private hands, nevertheless its speed has slowed markedly. By the end of 1994³ almost 11 million of "rental units" had been privatized, which represents 32.4% of the eligible housing stock. However, only about 500 thousand units were sold in the last three months of 1994. Nevertheless, at the beginning of 1995 more than 53% of the entire housing stock was in private hands.

While the transfer of the ownership rights has advanced quite far, there has been little progress as far as rent liberalization is concerned and utility prices remain significantly subsidized. A program of phased rent increases was started in 1994 and at the same time, the program of housing allowances was introduced. The first experience from two pilot projects in Vladimir and Gorodetz have indicated mixed results. While the overall eligibility rate for housing allowances was about 45% in Vladimir and only 20% in Gorodetz, the eligibility rate for the poorest quintile reached 99% in Vladimir and 66% in Gorodetz. However, the overall participation rate in both cities reached only 7-9% in the second year of the program, when only about 20-25% of households from the poorest quintile were actually given housing allowances.⁴ This result points to an extremely low take-up ratio and high vulnerability of the poorest households and emphasizes a need for a very careful housing allowance program in Russia.

The cost-recovery rate has fluctuated widely in last years. It is estimated⁵ that in 1990 rents covered about 35% of maintenance costs. This share dropped, due to high inflation and

³ The last year for which data are available, source: Urban Institute.

⁴ See Struyk, Puzanov, Lee (1996), tables 7 and 8.

⁵ Kosareva et al (1995).

stagnant rents, to less than 1% in 1993. At the end of 1995, households were estimated to cover between 20 and 30% of actual housing and utility costs.⁶ The rest was covered either by municipalities or by enterprises. In January 1996, the government extended the period in which rents were scheduled to increase to cover the operating cost. Initially, rents were supposed to cover 100% of operating costs by 1998 (and the cost recovery of about 30% in 1995 was roughly in accordance with this schedule, see the Table 1), now the deadline has been shifted to 2003 with no details on the actual rent changes available.⁷

Table 1: The original schedule of rent increase

	% of operating costs to be covered by rents	maximum share of income to be paid for rents*
1994	15-20	0.10
1995	20-40	0.15
1996	40-60	0.15
1997	60-80	0.15
1998	100	0.20

* The share depends on income per capita. It is as low as 2% of income for low-income groups.

The share of rents in the Russian households expenditures is therefore extremely small. On average, households spent only 4.3% of their expenditures on housing cost in 1995.⁸ The share was as low as 2% for the richest quintile of households and reaches still fairly low level of about 6% of expenditures for the bottom quintile of households. Therefore, there seems to be a substantial space for increase in rents without provoking social difficulties on a broad scale.

The fairly low cost recovery rates suggest the scale of financial burden carried by enterprises. Indeed, the total spending on social benefits and services reached almost 17% of the enterprises' total wage bill in 1993 and about 20% in 1994. The share was even higher for industrial firms where an amount equal to 22% in 1993 and 26% in 1994 of the wage bill was spent on social purposes. The burden was highest in concentrated sectors such as the energy or fuel industries and lowest in food processing and other, unclassified firms, usually start-ups. In fact, only 14% of new private firms were providing a housing subsidy in 1994, as opposed to 54% among the state owned enterprises and even 61% of privatized enterprises.

⁶ See Freinkman, Starodubskaya (1996).

⁷ The new deputy prime minister Boris Nemtsov confirmed the cost recovery program in May 1997 but no further information was available as of May 1997.

⁸ The source: Goskomstat (1996).

Enterprises were responsible for spending more than a quarter of the total spending on social purposes and housing in Russia in 1993.⁹ As far as housing is concerned, enterprises contributed almost 30% of the budgetary spending on housing maintenance in 1993 and about 23% in 1994. Housing had been acquiring ever more prominent position among social spending, as its share increased from 37% of total social spending of enterprises in 1993 to about 56% in 1994.¹⁰

The provision of benefits in Russia generally does not seem to play a role in attracting workers to successful firms, as firms provide benefits regardless of their financial situation and the firms' housing facilities are often occupied by occupants with no relation to an enterprise whatsoever. As Alm and Sjoquist (1995) showed, the share of employees in firms' flats could be as low as 5%. A more typical share, however, was about 20%. As shown by Commander et al (1995a) there is no statistically significant correlation between profitability of a firm and a change in the level of social benefits provision by the firm. Moreover, benefits usually do not serve as a substitute for lower wages. Wage level and the level of social benefits are positively (and significantly) correlated. Therefore, we can hypothesise that social benefits provided by firms in Russia are more than anything else a residue of the past role of "social enterprises", rather than a rational tool of enterprises used for attracting labour.¹¹

This hypothesis is supported by a survey of Russian firms,¹² showing that enterprise managers see social functions of their enterprises as a significant burden. As the most burdensome benefits were singled out kindergartens and housing benefits. Provision of these benefits required significant capital stock and they also busied a substantial portion of almost 18% of firms' total labour force occupied by social services, when more than 7% of the firms' labour force was involved in the functioning of enterprise housing only. Though enterprises together would gain only 0.5% of GDP from the divestiture¹³, financial impact on enterprises providing substantial housing services would be much more pronounced.

⁹ See Freinkman and Starodubskaya, p.3 (1996).

¹⁰ The latter number includes investments, which were not classified independently in 1993. Other authors found the share averaging 44% across a sample of industrial firms - see Alm and Sjoquist (1995).

¹¹ A positive correlation of wages and fringe social benefits, provided by firms might be found in the Czech Republic or, indeed, in the U.S. where firms use fringe benefits as a tax haven - see Filer, Schneider and Svejnar (1997). It is difficult to assess to what extent exactly Russian firms use housing subsidies as a tax-reducing tool, but given the wide-spread complaints of Russian managers of high cost of housing provisions, it is more likely that they have inherited an inefficiently high level of social benefits provided by firms.

¹² Survey by Coopers and Lybrandt (1995) quoted by Freinkman and Starodubskaya (1996).

¹³ Estimation given by Freinkman and Starodubskaya (1996), p.22.

Moreover, the Russian government has already set up a program of housing allowances which is a prerequisite for any substantial rent increase. A properly working allowance program should protect poorest social groups from abrupt necessity to leave suddenly unaffordable housing. The experience suggests¹⁴ that such programs need to improve the enrolment rates to be able to abate hardship evoked by rent rises.

Therefore, divestiture of housing seems to be a relatively uncontroversial issue, as there are net gainers - mostly firms, and only few losers. The only significant "loser" would be the state, or rather municipalities, which would be forced to accept responsibility for divested housing. As this is already happening and the allowance program has been targeted at this problem, the only remaining worry are the macroeconomic repercussions of divestiture, namely its impact on wage increase. We devote the next parts of the paper to this phenomena. For the sake of argument we therefore assume that divestiture does take place and that it is carried out quickly.

3. Housing Reforms and Their Wage Impact

A. Theoretical Underpinnings

Although the scope of divestiture in Russia is unparalleled to any other transition country in its vastness, it is nevertheless important to look at experience of other countries. As we are interested mainly in the rent-wage dynamics in a transition economy, we look at first to the existing theoretical underpinnings of such a relationship and then we show whether we can confirm the theory by empirical data.

Authors studying the rent-wage relationship in market economies, which admittedly provide only limited insight for studying this relationship in transition economies, have established using data from the UK, that lagged house prices (which are much better recorded than rents and should be reflected in rents) have a significant and positive effect on wages.¹⁵ However, changes in unemployment and especially in sectoral mismatch have proved to be more important for wage pressure. It has been repeatedly shown that transition economies are characterized by important structural changes which may overshadow subtle relationship between wages and rents.¹⁶

The evolutionary process of price-wage dynamics in transition economies is frequently accompanied with structural breaks which preclude a simple econometric analysis.

¹⁴ See Struyk et al p.14 (1996)

¹⁵ See, for example, Bover, Muellbauer and Murphy (1989).

¹⁶ See Golinelli and Orsi (1994) or Blangiewicz and Bolt (1993).

Moreover, the transition process reveals the long suppressed inflationary trends within an economy where prices had been controlled for decades and by no means do not reflect costs. It is therefore quite difficult to separate the impact of different factors on a rise in wages.

Golinelli and Orsi (1994) studied the price-wage spiral in Poland during the eighties. They employed a model which emphasized the role of the exchange rate and import prices. The main result, related to our discussion, was that wage fluctuations in the long term were better explained by changes in import prices rather than by the domestic inflation. Studying the short term relationship between wages and other factors revealed, however, that wages are affected mainly by changes in labour productivity and in the change of domestic prices (DLP_t). The effect of price changes was considerably higher than the impact of changes in labour productivity.

This analysis stresses the importance of distinguishing the short- and long-term consequences of rent increases in a transition economy. The difference between these two effects might be of even greater importance in Russia, as its economy is characterized by especially severe imbalances. Moreover, as we showed above, the price of housing has been particularly distorted during the last decades and its equilibration will require substantial increase of rents.

B. Empirical Observations

The former Eastern Germany might have served as the best example of a radical housing reform for other transforming countries, as rents were there increased sharply by 400% in 1991. At the same time, a housing allowance program was launched which covered 50% of rent payment up to a ceiling.¹⁷ However, the wage dynamics in Eastern Germany have been driven by completely different factors than rent rises and thus cannot serve as a basis for estimating dynamics of wages in Russia. We instead turn to the Czech experience which is significantly closer to the Russian housing reform.

Studying the Czech data we have found a significant but small impact of increase in rents (lagged by a quarter) on nominal wages. However, a disclaimer is required before we discuss the data in more detail. Czech housing reform has been characterized by a notable slowness of rent increases. Rents still represented paltry 3% of the total households' expenditures,¹⁸ and the total expenditures related to housing (rents, heating, electricity, water) reached a mere 11% of households' expenditures (although it reached 20% for households headed by a pensioner). These numbers, although quite low, do not correspond with the situation in Russia, where households spent in 1995 on average almost 58% of their

¹⁷ See Hamm (1996). The author estimates an investment gap in the East German housing at about USD 300 bil, which is a sum too high for any of the transition countries, including Russia.

¹⁸ For data on the Czech Republic, see Statistical Yearbook 1996.

expenditures on food and only paltry 3% on all expenses related to housing - see also Figure 1.

On the other hand, the Czech housing stock has been profoundly different from the Russian case, as more than 40% of population have always lived in their own housing facilities, mainly small family houses in smaller towns and in the countryside. A further 20% of families live in so called "cooperative apartments", which were built primarily during the seventies, as the state housing program was insufficient to cover increased demand for new apartments. Tenants in such cooperatives are now responsible for covering the full costs and the only state support consists in a cheap loan (with interests subsidized by the state budget) which is paid off only gradually by cooperatives. Therefore, "only" about 40% of families live in flats with regulated rents. About 75% of them live in the publicly owned housing, 25% in privately owned houses with regulated rents. This share has been decreasing in the last years, as new flats are not covered by the rent regulation and some existing flats have changed their status and become unregulated. Compared with Russia we find a similar share of privately owned flats - about 60% in the Czech Republic and 53% in Russia. However, the scope of rent regulation remains fairly higher in Russia, where rents cover even lower share of the costs.

Rents in the Czech Republic were first administratively increased in 1992 by 100%, followed by a further rise of 40% in 1994. The rent regulation has had, since 1995, form of price capping method, where the maximum rent P_t is calculated on the basis of the last year rent, inflation rate K_i and size of the municipality K_v . Moreover, the government has added a coefficient K_r which allows it to increase or decrease the rate of rent increase by 10%.

$$P_t = P_{t-1} \cdot (1 + K_i) \cdot (1 + K_v) \cdot (1 + K_r)$$

All municipalities in the Czech Republic have been divided into five groups: Prague with the coefficient 19%, cities with population above 100 thousand have the coefficient 15%. Smaller cities (population 50,000 - 99,999) have the coefficient 11%, towns with population between 10 and 50 thousand were given the coefficient 8% and smaller municipalities have the lowest coefficient - 6%.

This mechanism has resulted in an average increase in regulated rents of about 10% in 1995 and 30% in 1996. An average 50% increase is expected in 1997. Given the inflation rate just below 9% in 1996, the real increase oscillated around 20%, with an above average increase in Prague, where the lack of apartments is most pronounced. Such a rise in rents has failed to satisfy owners of dwellings who claim that rents cover only a fraction of cost, from 20 to 50%, a share not so different from the cost recovery common in Russia. Figure 2 describes the development of rents, prices of utilities together with development of households' expenditures and wages. Rents have come through the second most rapid rise,

when only price of water has been rising even faster. Note also that aggregate expenditures have been rising more quickly than wages.

Nevertheless, the rent increase have burdened some households significantly and therefore the Czech government introduced in 1994 a housing allowances program. Benefits paid by this program are means tested, but they do not depend on the rent actually paid by a household. Eligible for benefits are households in which the joint income of all persons permanently residing in a flat falls below 140% level of the Minimum Living Standard¹⁹ for a family of this size and age composition, irrespective of the ownership type of the flat (i.e. inhabitants of the self-owned flats are also eligible) and irrespective of the actual housing expenses. The rent (or property tax) for the previous quarter must be duly paid. Income of the preceding *quarter* is tested. The level of benefit is defined as follows:

where: HB = housing benefit

$MLSh$ = household minimum (part of the minimum living standard related to the household expenditures)

MLS = minimum living standard for the household (sum of individual standards and household minimum)

I = household joint income

For the purpose of establishing eligibility for the means-tested social support benefits and social assistance benefits, a household is considered as a single entity and incomes of all the household members are added together. Income for the purpose of means testing includes all incomes, all returns from property (including royalties etc. and capital gains from a property sale) and capital (including interest), net of taxes and general social insurance, sickness benefits and pensions, unemployment benefits, when testing for the social assistance benefits also any welfare benefits (e.g. parental allowance) and other minor benefits (such as income of conscripts, student stipends, etc.).

C. Wage Dynamics in the Czech Republic

Having described the Czech housing reform, we can turn to question to what extent the reform influenced wage dynamics in the Czech Republic. A rapid increase of wages have become one of the most troubling attributes of macroeconomic developments in the Czech Republic. Wages increased nominally by 187% in only four years from 1993 to 1996. Real wages increased in the same period by almost 30% resulting in pressure on the aggregate demand, widening of the trade deficit and persisting inflation. Fast real wage growth is caused by both push and pull factors, pull factors being probably more pronounced.

¹⁹ Defined by the government on a basis of necessary expenditures for a household.

Living costs defined as costs of housing, utilities and food have been rising more slowly than inflation, leaving ever increasing part of households' income for other expenses. Rapid wage growth is driven by a natural process of restructuring the Czech economy under the near-full employment situation²⁰, when the downward pressure on wages is almost completely absent. In this aspect we can find similarities with the Russian development, when the official unemployment rate is still quite low - less than 1% in Moscow and a maximum of 9% in Ivanovsk with median around 3%²¹, or about 7% using the ILO definition.²²

Rising living cost in the Czech Republic do not explain increasing wage differences in economic sectors. In 1995, when rents increased by 10% and living expenses by 9.1%, nominal wages on average increased by 18.5%. Nevertheless, sectors differed widely: wages in transport and communications increased by 22%, in hotels by 21% in real estate business by 20%. On the other hand, wages in retail trade increased only by 14%, in financial services by 15% and in construction by 16%. As we show below, wages are influenced mainly by productivity factors and push factors, such as rents, play a minor role.

To estimate the relationship between wages and rents we use a simple model, which estimates impact of changes in labour productivity, prices of housing and prices of basic utility services (as heating, water, electricity and gas) on changes in real wages. We use quarterly data from the period 1993 - 1996, when the main economic relations had been already settled and an econometric analysis can yield reasonable results. We employ real data, nominal numbers deflated by the official quarterly inflation rate, in order to avoid effects of price jump in 1993 when a new tax system was launched in the Czech Republic. We use an index of the labour productivity based on data from industrial sectors only, as they are more reliable. We, moreover, believe that it gives a better picture of the overall labour productivity changes than indices based on the aggregate numbers. Wage and price indices were taken from the official government statistics, where they are collected on a quarterly basis. We lagged the index of rent increase by one quarter, as to allow changes in rents to disperse into the economy.

The equation and results are summarized in the following table and by two attached diagrams.

Table 2: Results of the analysis

²⁰ Unemployment in the Czech Republic reached its peak in 1996 at 4.1%.

²¹ Using the World Bank database.

²² Monitoring Economic Conditions in the Russian Federation, RLMS, February 1996.

real wage	const	productivity	rents	utility
coefficient	100,8753	0,4558	0,1504	-0,5946
t-statistic	1,05	1,07	2,65	-1,03
	Adjusted $R^2 = 0,517$	F-statistic = 8,146	Number of observations = 22	

The results hints at a twofold relationship between real wages and prices. First, rents have the tendency to increase real wages a little: for every 1% increase in real rents, there is about 0,15% increase in real wages. The relation appears statistically robust and stable under different alternatives. On the other hand, 1% real increase in the price of basic utilities (water, electricity and gas), i.e. increase faster than the general inflation rate, tends to decrease real wages by almost 0,6%. This relationship, however, is statistically very weak and the t-statistics is insignificant. We can hypothesise that while rent increase have infiltrate into higher wages even more than proportionally, the elasticity of wages with regard to the utility prices is much lower and does not compensate households for the prices increase.

The relationship between the aggregate productivity and real wages appear much more blurred - it is not significant even on the 10% level of confidence. While this finding points to the previously discussed statistical problems with rapid, and often ambiguous, trends in wages during the transition period, it might be interpreted if we look at the data in more detail. As mentioned above, there is a widening gap in wages across sectors in the Czech Republic. The dynamics of wages *across* sectors is much more correlated with changes in the labour productivity than the aggregate results suggest. Running a simple regression reveals that real wages in a sector rise by 1,7% for each 1% rise in the labour productivity in this industrial sector ($R^2 = 0,48$). Therefore, we can conclude that the real wages dynamics in the Czech Republic with respect to rents is weaker than the relationship between real wages and labour productivity. While the "rent elasticity" of wages appears to be around 0,15 the elasticity with respect to labour productivity is about one half.

4. Estimation of the Wage Dynamics in Russia

Given the similarities between Russian and Czech housing reform, what can be concluded about the impact of further rent liberalization on wage dynamics in Russia? As we have argued, rents make only a minor contribution to wage increases. Nevertheless, even this might create additional pressure on wages, should rent increase be extremely steep and households' ability to pay already exhausted. We show that such a scenario is highly unlikely in Russia, given its exceptionally low expenditures on housing. If Russia succeeds in its

economic reforms and delivers reasonable growth rates, restructuring of rents should not create any substantial social problems.

In order to estimate the future path of such complex variables as wages or households' expenditures, we have to make several admittedly brave assumptions. First of all, we suppose that the Russian economy will begin to grow in 1997 and that it will achieve a 5% growth rate from 1998 onwards. This is quite an ambitious goal, but similar trends are expected by several sources.²³ Further, we assume that similar to other transition countries, private consumption will rise even faster than the whole economy. This phenomenon has occurred in all transition countries and is already happening in Russia, as well. In our simulation we assume that the gap between the rich and poor in Russia will be increasing quite slowly - we expect that the differences in the Russian society will widen further as the richest quintile's consumption will rise by 4% annually and the poorest one's only by 3%. This reflects trends in other transition countries and Russia's own experience.

Finally, and most arbitrarily, we have to estimate rent increases in Russia for at least 15 years ahead. In our simulation we assume a fairly rapid increase in rents in the first years: by 100% in 1997, by 75% in 1998, by 20% annually in 1999-2001 and by 10% annually afterwards. Therefore, we assume that the Russian government will pursue its proclaimed strategy to bring cost recovery to 100% in 2003 and that cost of housing will rise as the Russian households move to better equipped and more spacious apartments. By the same token, we assume that the utility prices will grow proportionally with rents. From the Czech (and Polish) experience we can expect that this will be the case, as the utility companies will have to invest heavily to keep their capital functional and modernize their utility networks.

We assume that the share of households' expenditures on housing will begin to rise from the current level of 3% beginning in 1997. As shown in Figure 3, we estimate that the share of housing in the total expenditures will increase quite rapidly until 2000, when the poorest quintile will spend about 13% and the richest quintile about 7% of its expenditures. Afterwards, the shares will stabilize and in 2010 housing should consume about 8% of incomes of the richest quintile and about 15% of the poorest quintile's incomes. These shares are still well behind the limit when households qualify for rent allowances. Therefore, they do not generate excessive budget pressures. Also note that in two cities, where the World Bank supervises the housing reform - Vladimir and Gorodetz, only 2% of the increase in rent went to housing allowance payments.²⁴

What would be the wage consequences of such a development? Using our results from the Czech Republic we estimate that the wage raise, provoked by higher rents would be

²³ See for example, Infocentrum CVEV - Moscow.

²⁴ See Struyk, Puzanov and Lee (1996).

significantly smaller than raise caused by increasing productivity. While wages would increase by mere 3% annually as a consequence of the rent liberalization, they would be increasing by about 8% annually due to increasing productivity. Inflationary consequences of 3% wage increase are certainly manageable and do not constitute a major problem, especially given the Russian experience of controlling hyperinflation.

Last, but not least, is the question, how would divestiture and following wage increase influence the structure of GDP with respect to the consumption of households and government. From our estimate of the housing expenditure share in the household expenditures (2,5% in 1996 and 12% in 2010) we deduce that the share of expenditures on housing would increase from today's level of 1,5% of GDP to about 7,5% in 2010. To accommodate such a change, incomes of households would have to rise from the today's level of 23% of GDP²⁵ to about 29-30% in 2010. It translates to the real wage growth rate of about 2% annually above the GDP growth. Such a growth rate is certainly manageable and given the expected rise in the labor productivity in Russia, it should not lead to a macroeconomic destabilization.

Figure 4 illustrates the point on the Czech experience. Private consumption in the Czech Republic has been increasing in terms of its share in the country's GDP from about 50% at the outset of transition (1991 was an exceptional year with the share as low as 42%) to 59% in 1996. This was possible primarily due to the increasing external deficit which reached 11% in 1996, but also due to the decreasing share of government consumption which declined from 23% of GDP in 1992 to 19% in 1996. The Czech case thus illustrates the scope of GDP structure changes, which might be achieved in a quite short period of time. Furthermore, in Russia we would expect a drop in the share of GDP going to the stock accumulation as Russian firms will become more competitive and will not be able to finance production only for inventories.

5. Conclusions

We have argued, that housing reform is a formidable and pressing task, whose accomplishment would relieve Russian firms of a significant burden and allow them to behave more competitively. Drawing on the Czech experience we have estimated the impact of rent liberalization on wages. We have shown that wages are during transition influenced more by labour productivity changes than by external factors and that the elasticity of wages with respect to rents is about 15%. Employing some assumptions about the future economic development in Russia, we have estimated the share of housing expenditures in households' budgets. Provided that the Russian economy will be able to grow by 5% even a radical liberalization of rents should not bring excessive social strains.

²⁵ Source of data: World Bank 1997.

Nevertheless, a proper program of housing allowances remains a prerequisite for a fundamental housing reform in Russia, as there undoubtedly social problems will arise in certain areas. As the wage dynamics are concerned, we have estimated that a radical rent liberalization would add only about 3% annually to wage growth which does not appear excessive and should not impede housing reform in Russia. Only a robust economic growth accompanied by real wage growth is capable of accommodating increase in housing costs of Russian households. Nonetheless, it is difficult to see how Russian firms can restructure and begin behave efficiently when they are burdened by huge cost of providing cheap accommodation and services not only to their labor force.

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