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Macroeconomic and structural properties of the Russian labor market: A cross-country comparison

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Abstract

We suggest a new way to identify salient features of the Russian labor market. Parameters of basic macroeconomic models pertinent to the Russian labor market are compared to a sample of other countries. We find that estimated values of Okun's coefficient and the elasticity of real wages to labor productivity in Russia are typical for emerging markets. What really distinguishes the labor market is that the elasticity of real wages relative to unemployment in Russia is very high by international standards. The overall conclusion is that the Russian labor market can be characterized by a combination of serious structural problems (such as low employee mobility, the significant size of the shadow sector, etc.) and solid macroeconomic performance, verified by the persistently low rate of unemployment in recent years.

JEL classification: E24, J61, O57.
Keywords: Russian labor market, cross-country comparative analysis, macroeconomic models, migration.

1. Introduction

At first glance, the Russian economy has rather standard general characteristics. In a sample of 20 large economies (including 10 developed countries and emerging markets), Russia ranked 14th in average unemployment (7.0%) and 11th in the coefficient of variation for this indicator (21%) for the period 2000 to 2016 (Fig. 1).

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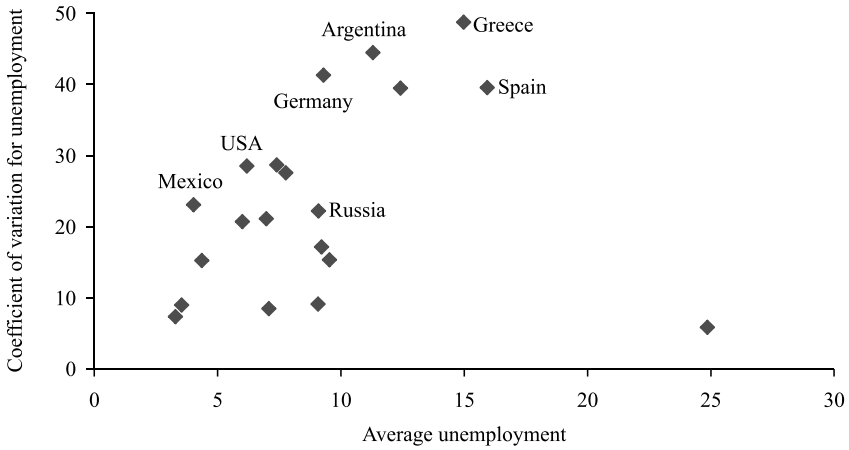

Fig. 1. Average rate and coefficient of variation for unemployment, 2000 through 2016 (%).
Source: Authors' calculations based on IMF data.

However, we can investigate Russia's specific features further if we switch from examining "static" characteristics to examining "dynamic" ones that demonstrate its labor market reaction to shocks. For example, Fig. 2 represents the scale of production shocks for the same sample of countries during the "great recession" and the labor market reaction to them. These indicators were calculated based on Okun's law: the horizontal axis represents changes in the GDP growth rate; the vertical axis represents the acceleration (or deceleration) of unemployment trends (2009 compared to 2008 in both cases). Russia's economy experienced the greatest deceleration in growth among all of the sampled countries, with its growth rate declining by 13.1 percentage points (p.p.), while unemployment demonstrated moderate acceleration (rising by 2.0 p.p. in 2009 compared to 0.2 p.p. in 2008). A simplified calculation (based on two points) of Okun's coefficient (see Section 3.1), correlating unemployment rates with economic growth rates shows that the absolute values for only two countries in the sample (Italy and Malaysia) were lower than in Russia.

Of course, these calculations are more illustrative in nature; for example, they do not take into account changes in the average hours worked by employees. Some countries actively used this mechanism to adapt to the crisis, but in Russia, this was used only to a small extent. According to the OECD, the average Russian employee worked 1.3% fewer hours in 2009 than in 2007, whereas this workload dropped by 3.3% in Germany, and 4.1% in the U.S. Moreover, the countries differed slightly on indicators such as when production began to decline and the scale of anti-crisis programs related to the labor market, among others. Nevertheless, Fig. 2 demonstrates that the Russian labor market is notable regarding the nature of its reaction to negative shocks. As a a result, the question remains: was Russia's reaction too weak or was the reaction in other countries too strong? The Okun coefficient calculated for Russia (–0.14) does not seem to be abnormally low in terms of long-term relationships, whereas for some countries this indicator is close to or even above one (in absolute value), which appears to be an excessively strong reaction. Still, it is unclear how these estimates should be interpreted, as the observed labor market trends include both long- and short-term relationships.

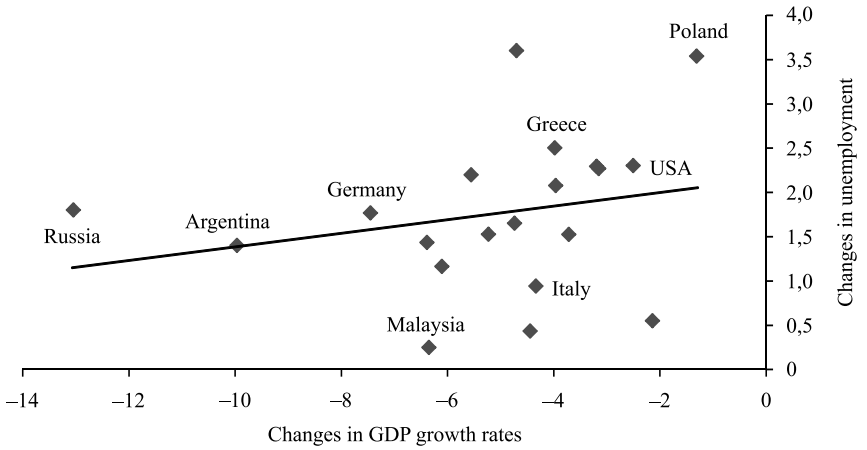

Fig. 2. Difference between GDP growth rates and changes in unemployment in 2009 compared to 2008 (p.p.).

Source: Authors' calculations based on IMF data.

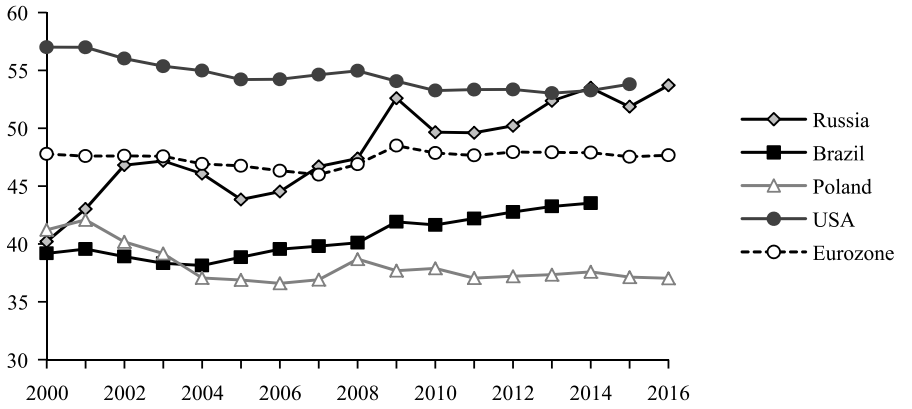

Fig. 3. Compensation of employees in GDP (%).

Source: Authors' calculations based on OECD and Rosstat data.

Another important aspect of the Russian labor market is that it is one of the few in the world where the share of labor income in GDP has grown in recent years (Brazil is another example; however, its trend is considerably less pronounced). If we look at GDP and employee compensation data in Russia (calculated according to a modified method after 2011) in a comparable form to that of earlier years, we can see that the proportion of wages to GDP grew from 40% in 2000 to 54% in 2016 (Fig. 3). For other countries, this indicator has remained comparably stable (as in the eurozone) or declined (as in the U.S. and Poland) during the same period. The literature (for instance, Grossman et al., 2017; Guerriero and Sen, 2012) cites several possible reasons for a reduction in labor income as a percent of GDP. However, the opposite trend in Russia requires an explanation.

On the whole, the Russian economy (including the labor market) also is notable due to the significant regional differentiation for most of its economic indicators.

2. Research question

The Russian labor market has been examined in a large number of studies that have considered its structural and institutional characteristics. Many of the most important results have been gathered into a series of collective monographs (Gimpelson and Kapeliushnikov, 2011, 2014, 2017). At the same time, there are only sporadic studies on the macroeconomic characteristics of the Russian labor market before 2015. Rare exceptions include, in particular, the estimate of natural unemployment (NAIRU) by Akhundova and Korovkin (2006), the "wage curve" (Shilov and Meller, 2008), and the Phillips curve (Gafarov, 2011). In addition, several studies describe failed attempts to build basic macro models. For example, Akhundova et al. (2005) concluded that the connection asserted by Okun's law was unstable and its evolution uncertain in the Russian economy.

Notwithstanding the scant research into mechanisms for macroeconomic adjustment in the Russian labor market, the notion of the "Russian model of the labor market" formulated in macroeconomic terms is generally accepted. This notion was first introduced by Layard and Richter (1995) who noted that during the initial years of market reforms in Russia, unemployment grew slower than in other transitional economies despite the considerably greater production decline. Since then, the combination of a rather strong reaction by wages and a relatively weak reaction by the number of workers to production shocks has been considered the main attribute of the Russian labor market. Gimpelson and Kapeliushnikov and other authors have returned to this subject on several occasions, citing arguments in favor of similar reactions to subsequent shocks (Gimpelson and Kapeliushnikov, 2011, 2015).

However, we believe this common notion has a number of weaknesses:

1. It is based on separate, sporadic observations that are unrelated to each other through any macroeconomic model. One of the implications is that it is impossible to tell whether the observed reactions reflect a short- or a long-term adjustment, namely, whether we are dealing with a shift in, or a temporary divergence from equilibrium.

2. The observations used pertain to the crisis periods (1998, 2009, etc.). However, critical situations are always unique, both in terms of the shocks experienced and the reactions to them. In particular, special measures taken by the government (often including temporary changes in the "rules of the game") play a substantial role during such periods. As a result, labor market responses to crisis shocks may provide a distorted view of "normal" mechanisms. For example, the analysis conducted by Darius et al. (2010) demonstrated that in 2008 and 2009, the reaction of the labor market in most countries turned out to be much stronger than would have been expected based on past experience.

3. The question regarding which economic mechanisms determine the specific attributes of the Russian labor market reaction to shocks is still open (or, rather, has not been even raised).

The above demonstrates that the generally accepted idea of the Russian labor market model represents more of an expert judgment than a well-grounded proposition.

In this paper, the results from building basic macroeconomic models for the Russian labor market, carried out over the past several years, are compared

to the estimates of similar models for other countries. A systematic cross-country analysis of the parameters from these models allows us to finally formulate the distinguishing properties of the Russian labor market model. This approach also reveals macroeconomic mechanisms underlying patterns of adjustment to shocks typical for the Russian labor market.

3. Basic macroeconomic characteristics of the Russian labor market

3.1. Okun's law

The economic connection between economic growth rates and changes in unemployment proposed by Okun (1962) over half a century ago remains one of the main tools for analyzing labor markets. Vakulenko and Gurvich (2015a) studied the most common representation of this correlation:

$$u_t - u_{t-1} = a + b \times g_t + \varepsilon_t, \quad (1)$$

where u is the unemployment rate, g is the GDP growth rate, and b is Okun's coefficient.

Okun's law is known to apply only to sufficiently mature labor markets. In certain developing countries, no significant interrelation between production and unemployment has been found (Lal et al., 2010). Gabrisch and Buscher (2006) proposed that the formation of the labor market mechanism in the formerly planned economies could be considered as completed once Okun's law became persistently applicable there.

The correlation between unemployment and growth is often asymmetrical, differing for periods of growth and recession. There are two possible explanations for this: "risk aversion" and "employee retention." In the first case, as soon as a recession starts, employers immediately cut costs, including payroll expenses, in order to avoid losses. They rehire employees when growth resumes. The second explanation is that the firing or hiring of employees is limited by law or associated with additional costs (expenses for severance payments, the search, selection, and training of employees, etc.). In this case, when the environment gets worse, employers try to retain their employees. A stronger reaction to recession (i.e., risk aversion) is typical in developed countries.

A standard estimate of equation (1) reveals a significant short-term relation with the value of Okun's coefficient: –0.103 (Vakulenko and Gurvich, 2015a). The indicators of unemployment change and GDP growth also turn out to be connected through a long-term relationship (co-integrated). The same is true for the interconnection of employment and GDP.

A symmetrical analysis shows that the reaction to negative production shocks is almost twice as strong as the reaction to positive shocks. Therefore, the behavior of employers in Russia (as in most other countries) demonstrates risk aversion rather than the desire to retain employees.

The general conclusion is that Okun's law is applicable in Russia both in the short and long run. A comparison (Akhundova et al., 2005) has shown that transition processes in the Russian labor market were completed during the first half of the 2000s (i.e., the shaping of the labor market mechanisms took slightly more than 10 years).

Table 1
Okun coefficients for a sample of developed countries and emerging markets.

Country	Okun coefficient estimate	Estimate source	Observation period
Spain	–0.40	Jardin and Gaetan, 2012	1984–2009
U.S.	–0.29	Ball et al., 2013	1948Q2–2011Q4
United Kingdom	–0.24	Jardin and Gaetan, 2012	1984–2009
France	–0.22	Jardin and Gaetan, 2012	1984–2009
Czech Republic	–0.21	D'Apice, 2014	1994–2013
Germany	–0.17	D'Apice, 2014	1994–2013
	–0.13	Jardin and Gaetan, 2012	1984–2009
Hungary	–0.15	D'Apice, 2014	1994–2013
Switzerland	–0.14	Jardin and Gaetan, 2012	1984–2009
Brazil	–0.12	Tombolo, 2014	1980Q1– 2013Q3
Russia	–0.10	*Vakulenko, Gurvich (2015a)*	*1995Q1–2013Q3*
Netherlands	–0.10	Jardin and Gaetan, 2012	1984–2009
Italy	–0.06	Jardin and Gaetan, 2012	1984–2009

Source: Vakulenko and Gurvich (2015a).

Table 1 presents estimates of Okun's coefficient for a sample that includes both developed countries and emerging markets. The sample only includes results obtained for the type (1) specification using similar econometric methods based on quarterly data for a comparable period. Cross-country comparisons demonstrate that the values of those coefficients for Russia are lower than in most developed countries and are relatively close to respective estimates for emerging markets. Therefore, the extent of unemployment reactions to production shocks in the Russian labor market does not differ substantially from those in countries with similar levels of development.

3.2. Wages-labor productivity-unemployment nexus

One of the key findings regarding the macroeconomic characteristics of the Russian labor market was obtained by Vakulenko and Gurvich (2015b), who established an interrelation between the three main labor market indicators: wages, labor productivity, and unemployment. This relationship is based on the Blanchard and Katz (1999) model, expressed as follows:

$$w_t - p_t^e = \alpha + \beta \times (w_{t-1} - p_{t-1}) + (1-\beta) \times y_t - \gamma \times u_t + \varepsilon_t, \quad (2)$$

where: w_t is nominal wages; p_t, p_t^e are the actual and expected prices; y_t is labor productivity; and u_t is the unemployment rate at time t. We believe this model combines empirical (Phillips curve) and theoretical (search and selection model) concepts. A number of studies have attempted to build an interconnection between the three key variables based on model (2), although various econometric specifications could be used for this. For example, for roughly half of the OECD countries examined, a long-term co-integration relation between wages and labor productivity, and unemployment was found (Pascalau, 2007).

Model (2) was assessed based on Russian data for both longer (1995–2013) and shorter (1999–2008) periods, and determines whether the labor market reactions differed during crises and "calm" periods. A modified vector error correction model (VECM) was built using the variables under review, taking possible asymmetric reactions into account. This specification allowed us, first, to distinguish

Table 2
Assessment of VECMs: Co-integration coefficients.

Variable	1995–2013	1999–2008
Labor productivity	0.59 (0.17)	0.59 (0.10)
Unemployment rate	–0.14 (0.03)	–0.12 (0.01)
Constant	7.74	7.51

Note: All coefficients are significant at 1%; dependent variable — labor remuneration; standard errors are in brackets.
Source: Vakulenko and Gurvich (2015b).

between long-term correlations and short-term reaction to shocks and, second, to assess the presence of asymmetrical behavior in the labor market, which is an important sign of its inefficiency (it makes adaptation to negative shocks more difficult). The long-term coefficient estimates of this relationship have demonstrated sufficient stability relative to the specification (Table 2).

All coefficients in the co-integrating equations (regardless of specification) turned out to be highly significant and had the expected signs from an economic theory perspective: wages were positively correlated to labor productivity and negatively correlated to unemployment. A comparison of the equations for the two periods showed that, strange as it may seem, the long-term relationship between labor market variables is almost independent from the financial crises during these periods. All three of the coefficients in the equation practically coincide for both the full and "calm" periods considered. In both cases, a 1% growth in labor productivity causes wages to rise by 0.59%, while an increase in unemployment of one p.p. leads to a reduction in wages by 14% and 12%, respectively. For the wage equation, the coefficient is significant and negative if the co-integration relation is positive. In other words, wages return to their long-term trend after positive shocks.

No significant differences were found between the coefficients for positive and negative values of the co-integration relation. Consequently, the hypothesis asserting asymmetry in adjustments was not confirmed.

Table 3 shows estimates of the elasticity of wages relative to labor productivity obtained through similar models from other authors. They show Russia in a median position among the list of countries. The dependence of labor remuneration on productivity is rather pronounced (unlike in the U.S. and Japan), but still within reasonable and safe limits, remaining considerably below one (differing favorably from the United Kingdom and South Africa). The panel regressions by groups of countries produce values close to our elasticity estimates for Russia. Thus, a comparative analysis of these equations does not support the hypothesis that the Russian labor market stands out due to an excessively strong reaction of its wages to labor productivity shocks.

This model provides an explanation for the apparent paradox: real wages in the Russian economy rose faster than labor productivity, although the estimated coefficient of wage elasticity relative to productivity is considerably below one. The analysis shows that the observed growth in real wages[1] was almost equally explained by increases in labor productivity and reductions in unemployment. Thus, the substantial reduction in unemployment that accom-

[1] This conclusion holds both when labor costs are defined as average wages and as compensation to employees.

Table 3
Estimated elasticity of the long-term interrelation between labor productivity and wages.

	Country	Estimate source	Observation period	Elasticity of wages to labor productivity
1	Malaysia	Goh and Wong, 2010	1970—2005	1.223
2	United Kingdom	Pascalau, 2007	1960—2005	1.130
3	Sweden	Pascalau, 2007	1960—2005	0.787
4	Spain	Pascalau, 2007	1960—2005	0.745
5	*Russia*	*Vakulenko and Gurvich (2015b)*	*1995—2013*	0.590
6	South Africa	Wakeford, 2004	1990—2002	0.580
7	Germany	Pascalau, 2007	1960—2005	0.454
8	U.S.	Pascalau, 2007	1960—2005	0.099
9	Japan	Pascalau, 2007	1960—2005	0.014
10	Panel including 13 eurozone countries	ECB, 2012	1995—2011	0.605
11	Panel including 19 emerging markets	Klein, 2012	1996—2009	0.480*

* The coefficient of the co-integration relation did not include unemployment.
Source: Vakulenko and Gurvich (2015b).

panied growth in labor productivity doubled the growth rate of real wages and established the trend towards the higher proportion of labor remuneration mentioned above.

3.3. Elasticity of real wages to unemployment

Vakulenko and Gurvich (2016) assessed the reaction of real wages to changes in unemployment. A strong correlation between these indicators points to labor market's ability to adjust to shocks quickly and effectively.

To obtain more robust conclusions, the elasticity of real Russian wages was determined using three methods with different econometric specifications, lags structures, and a set of explanatory variables. Each version of the estimation was compared to the values obtained for other countries using the same specifications. The results of those comparisons presented in Tables 4–6 provide evidence that real wages are by far more flexible in Russia than in both advanced coun-

Table 4
International comparisons: Model 1.

Country	Semi-elasticity of real wages to unemployment	Country	Semi-elasticity of real wages to unemployment
Slovakia	0.06 (not significant)	Denmark	–0.38
Spain	–0.18	Germany	–0.42
France	–0.28	Czech Republic	–0.48
Portugal	–0.29 (not significant)	Netherlands	–0.51
United Kingdom	–0.29	Hungary	–0.81
Belgium	–0.30	Average for transitional economies	–0.40
Italy	–0.31	Average for developed countries	–0.22
Poland	–0.35	Russia	–0.93

Source: Russia — Vakulenko and Gurvich (2016); other countries — Poeck and Veiner (2007).

Table 5
International comparisons: Model 2.

Countries	Semi-elasticity of real wages to unemployment	Countries	Semi-elasticity of real wages to unemployment
Ireland	0.07*	Italy	–0.65
Greece	–0,08*	Belgium	–0.71
Spain	–0.16	Germany	–0.73
Luxembourg	–0.18*	Portugal	–0.97
France	–0.22	Austria	–1.17
Netherlands	–0.25	Russia	–1.22
Finland	–0.39		

Note: All coefficients are significant at the 1% significance level apart from those which are marked as (*), significant at the 10% significance level.
Source: Russia — Vakulenko and Gurvich (2016); other countries — Arpaia and Pichelmann (2007).

Table 6
International comparisons: Model 3.

Countries	Period	Semi-elasticity of real wages relative to		
		national unemployment rate	unemployment in the region	unemployment in the region (t–1)
Romania	1992–1998	0.0792***	0.0039	–0.0109***
Bulgaria	1995–1998	0.0857***	–0.0538**	0.1300***
CEE	1992–1998	0.0031	–0.0037	0.0080
Poland	1992–1998	–0.0084***	–0.0011	0.0017*
Czech Republic	1992–1998	–0.0189***	–0.0028*	0.0011
EU	1989–1995	–0.0262***	0.0006	0.0062
Russia	2002–2010	–0.0330***	0.0010	0.0073***
Hungary	1992–1997	–0.0342***	–0.0022	0.0002
Estonia	1995–1998	–0.1384***	0.0951	–0.0981**

*$p < 0.1$, **$p < 0.05$, ***$p < 0.01$, where p denotes probability values.
Source: Russia — Vakulenko and Gurvich (2016), other countries — Huber (2004).

tries and transitional economies. Estimates based on model 1 find that in Russia, elasticity of real wages to unemployment is more than four times higher than, on average, in the developed countries and more than twice as high as in transition economies. Both models 1 and 2 rank Russia higher than any other country in the sample by real wage flexibility. Finally, according to model 3, Russia has much higher wage elasticity to unemployment than the EU, while CEE countries, on average, have close to zero elasticity.

Thus, regardless of the estimation method, elasticity of real wages relative to unemployment in Russia is very high by international standards. This is completely in line with the unemployment trends observed following the financial crisis in 2008 and 2009, and during the financial crisis that began in the second half of 2014. In both cases, the rate of unemployment quickly returned to previous values (or close to them).

4. Territorial mobility of employees

Russia's population has relatively low spatial mobility (Bell et al., 2015; OECD, 2011). From 2002 to 2010, registered internal migrants made up only 1.4% of the population in Russia. By comparison, from 2000 to 2006, this indicator aver-

aged 13.7% in the U.S., 14.6% in Canada, and 4.6% in Japan.[2] One indirect proof of the low mobility in Russia is the comparatively large inter-regional differentiation in a number of economic indicators (Guriev and Vakulenko, 2012). We use cross-country comparisons to confirm it this (Fig. 4a). Evidently, the average value of the gross regional product (GRP) logarithm per capita in Russia was one of the lowest between 2000 and 2005, whereas the differentiation by GRP was higher among the countries in the sample that also have quite large territories.

Interregional differences in wages and unemployment rates in Russia are also significant. Fig. 4b shows a cross-country comparison in unemployment rates. In Russia, the differences in unemployment rates are among the highest. Out of the countries in the sample, only in Mexico, Germany, and Italy are they higher than in Russia.

Looking at the trends for interregional variation within Russia in recent years (Fig. 5), we can see that variation by GRP and wages declined during the 2000s. In terms of the unemployment rate, interregional variations fluctuated considerably between years, having no pronounced trend.

Thus, interregional variation within Russia is higher than in other countries, however, it has been reduced in recent years. At the same time, the intensity of migration in Russia is lower than in other countries of comparable size, and remains rather stable. In recent years, the barriers and incentives for migration have been declining concurrently. No economic barriers were visible for migrants during the 2000s that might have held them within their own regions (Guriev and Vakulenko, 2015). However, despite the fact there are no more "poverty traps," which serve as the main barriers to migration, migration flows have not increased in Russia, possibly due to the significant reduction in interregional differentiation of per capita income, wages, and unemployment (Guriev and Vakulenko, 2015), namely, due to poorer incentives for migration.

The main reason behind the reduction in interregional differentiation of average per capita income in Russia is, in the opinion of Guriev and Vakulenko (2012), high-

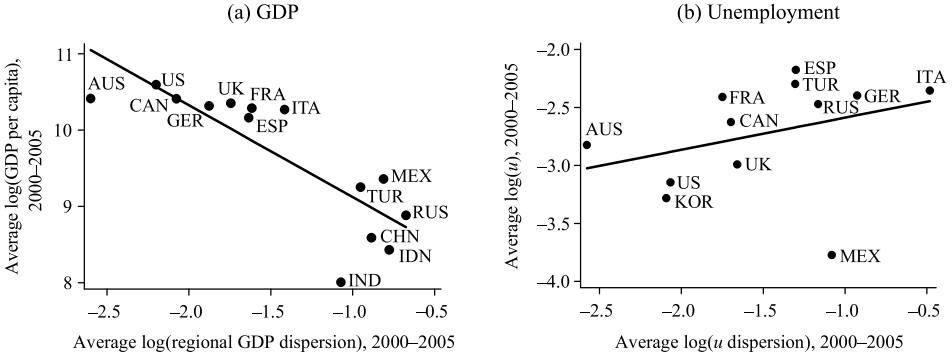

Fig. 4. GDP and unemployment interregional variation by country.

Source: Authors' calculation for Russia; Che and Spilimbergo (2012) for remaining countries[a].

[a] Che and Spilimbergo (2012) calculate the population-weighted sum of absolute gaps between regional GDP per capita and national average, thus adjusting for the fact that different countries have different numbers of subnational units. They also take into account the fact that data are not available for some regions; they calculate national averages as population-weighted averages using the available sub-national data.

[2] Official statistics from the services of the respective countries: Japan: http://www.e-stat.go.jp; USA http://www.census.gov; Canada: http://www.statcan.gc.ca

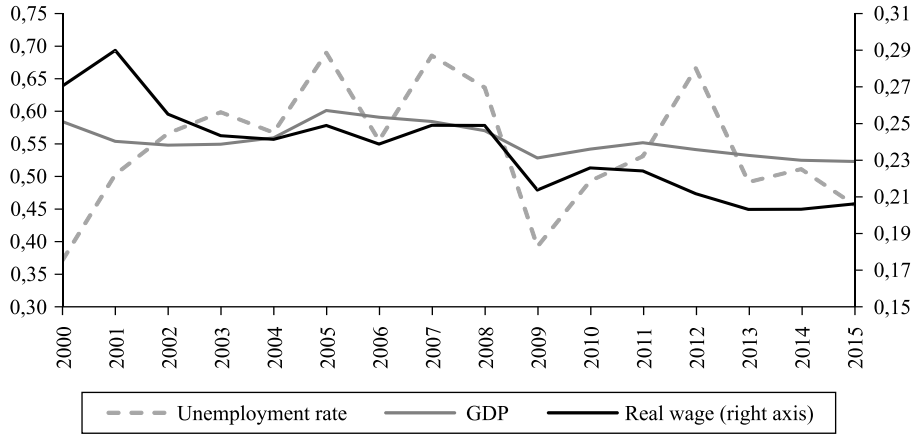

Fig. 5. Variation between Russian regions in real wages, unemployment, and GRP per capita.

Note: The graph shows $\sqrt{\frac{1}{P}\sum_{i=1}^{N} P_i(X_{it} - \overline{X}_t)^2}$, where X_{it} is the log of real income (or real wage, or unemployment, or real GDP per capita) in region i in year t, and $\overline{X}_t$ is the population average log of real income (or real wage, or unemployment, or real GDP per capita, respectively) in year t. P and P_i are the population of Russia and of region i, respectively.
Source: Rosstat's official data; authors' calculations.

er mobility of capital, which has increased due to the development of the financial sector and real estate market. The role of migration in reducing interregional differences within Russia is reviewed in Vakulenko (2016). It is noted that migration may lead to both a decrease and increase in interregional differentiation, as it influences both the demand for and supply of labor. The empirical results of Vakulenko demonstrated that although internal migration within Russia affects per capita income and wages in the short run (an outflow of migrants from a given region leads to growth in wages and per capita income), the effect of migration is low and, as a result, it makes no relevant contribution to reducing interregional differentiation. The effect of external migration is also insignificant (Vakulenko, 2016). The effects of migration on interregional convergence of income and GRP per capita in other countries are presented in Table 7. Migration leads to a convergence of GRP per capita and income in 40% of the studies reviewed, and to convergence in unemployment rates in 50% of the studies but the number of such studies is small.[3] Thus, according to those studies, it is hard to confirm that migration helps in convergence. Therefore, Russia does not differ from the majority of countries in this respect.

Table 7
Aggregated results regarding the effect of migration on interregional convergence.

Indicator	Migration leads to convergence (% of studies)	Number of studies
GRP per capita	40	15
Income per capita	42	12
Unemployment rate	50	4

Source: Authors' analysis based on Table 1 from Vakulenko (2016).

[3] However, it should be noted that these results were obtained for a model of absolute, or beta convergence, which does not mean sigma convergence, i.e., a reduction in differentiation (Glushchenko, 2012).

5. Conclusions

Our analysis allows us to formulate the following general observations about the macroeconomic characteristics of the Russian labor market.

1. *The Russian labor market is already formed and mature.* The key links between the Russian labor market indicators are sustainable and long-term in nature (the indicators are co-integrated), are clearly pronounced (the coefficients differ from zero), and have the expected signs. In many cases, we can determine the direction of the causal relationships; which is also expected. Another sign of maturity is the applicability of Okun's law.

2. *The strength of most correlations for the Russian labor market is typical for "emerging markets,"* with only one exception, namely, a high elasticity of real wages relative to unemployment.

3. *"Non-traditional" mechanisms function in the Russian labor market.* We found neither signs of a mechanism of "effective wages" (the effect of wages on productivity) — the impact is going only from productivity to labor remuneration — nor signs of utilizing employment in the public sector as a social policy tool (Gurvich and Khazanov, 2016).

4. *The Russian labor market is effective from a macroeconomic point of view.* The high elasticity of real wages relative to unemployment ensures that the unemployment rate quickly returns to equilibrium. The asymmetry of reactions is also less visible than in other countries.

5. The efficiency of the Russian labor market signifies its capability to self-adapt. The quick return of the economy to a state of full employment after shocks provides an argument against using *fiscal and monetary stimulation measures*.[4]

6. On the whole, the main feature of the Russian labor market from a macroeconomic point of view (the real "Russian model of the labor market") is its normality, namely, *the absence of rigidities found in other countries.*

7. *The Russian population is less spatially mobile than in other countries of comparable size,* and the degree of this mobility is rather stable over time. At the same time, the interregional differentiation by labor market indicators is comparatively large in Russia; however, it has been decreasing over the past several years.

Our findings have solid institutional grounds: many common sources of rigidity in the labor market are either absent or quite weak in Russia. The following factors can be noted:

- the modest role of trade unions in forming labor remuneration (OECD, 2011);
- a lack of rigid constraints on the dismissal of employees (also not always observed in practice);
- comparatively low mandatory minimal wages (20% of the average wage as of mid-2017, and around 10% on average in the 2000s);
- significant (over one-third) share of bonuses, and other flexible components in the structure of wages (Gimpelson and Kapeliushnikov, 2011).

On the whole, according to the World Economic Forum (2016) estimates, Russia occupies a rather high position in terms of flexibility in determining wages

[4] The fiscal rules used in Russia since 2004 are smoothing public spending over the oil cycle. However, more aggressive public spending and monetary stimulus are hotly debated as economic growth slows.

(23 out of 138 countries). At the same time, the Russian labor market rates comparatively poorly on other indicators: in terms of collaboration between employees and employers, Russia is ranked at just 103 (World Economic Forum, 2016).

In sum, we can conclude that the Russian labor market can be characterized by a combination of serious structural problems (such as low employee mobility, the significant size of the shadow sector, etc.) and good macroeconomic performance, which is confirmed by the persistently low rate of unemployment in recent years.

This situation is evidently driven by the specific features of the institutional environment noted above. However, institutions do not appear exogenously but are shaped endogenously. We believe that the Russian labor market, unlike goods markets, has been fortunate to avoid excessive regulation due to not being a potential source of "administrative rent." For this reason, the market mechanisms are not significantly distorted, and therefore, the labor market is highly efficient from a macroeconomic point of view.

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