

## **Determinants of job stability in East Germany and Russia: a comparative analysis using micro panel data**

### **1. Introduction**

Job is the most important thing almost for every adult, more over it is important to have stable job with regular payment and job security. Many countries have been watching a constant decline of stable job places during the last 20 years. New forms of employment have widely spread: temporary contracts, agency temporary work, casual work, seasonal employment, on-call work and etc. The growth of labour mobility means that the average tenure of employees declined in many countries.

On the one hand many economists consider too stable employment to be harmful for the whole economy when firms are not able to adopt their labour force to the fast changing market. Insiders with long tenure have strong bargaining power that could increase the labour costs (Hashimoto 1981; Hall and Lazear 1984). Some European countries have too rigid and overregulated labour relations, what causes the growth of temporary employment (Cahuk and Postel-Vinay, 2001) and declines the opportunity for job search for unemployed and graduates. The insider-outsider-theory stresses that closure processes thus diminish labour market dynamics (Lindbeck and Snower, 2001). From labour supply perspective, new employees have different values comparing with the previous cohorts; they are rather mobile (Gidens 2005, Beck 2000, Toffler 2001) the high rate of quits demonstrates the personal employees' wish to change the job (see Bergemann and Mertens, 2004).

On the other hand instable employment has disadvantages as well. In terms of segmentation theory, the "bad" segment with uncertain employment, low payment, lack opportunities for career growth, almost no social security negatively affects social inequality and stratification system (Doeringer and Piore, 1971; Hudson, 1998; Sorensen 1983; Kalleberg et al. 2000; Gerlach, Stephan 2005) Frequent job switches and unemployment lead to the lack of human capital that negatively affects wages and opportunity to find a good job. Unpalatable social and economic consequences are under hot debate in this context (Gregg and Wadsworth, 1994; Hogan and Ragan, 1995; St. Hippel and J. Stewart (1996); D. Rothstein (1996); M. Ferber and J. Waldfogel (1998); Klandermans and van Vuuren, 1999; Addison and Teixeira, 2000; Neumark, 2000; Cebian and others, 2000; Housman and Polivka, 2000; Cahuc and others

2001; Lindbeck and Snower, 2002; De Witte and Naswall, 2003; Hubler D. and Hubler O., 2006).

The first reason for job stability growth/decline is economic changes and institutional background. We know that both Russia and East Germany experienced transformational process to the market economy in the beginning of 1990s; great work reallocation has been a key concern for both countries throughout the early 90s as well as new setting of the institutional background. The two countries had much in common before reforms started: they both were planned economies with almost 100% employment, stable work places and rigid mobility. Nevertheless each of them went its own way through all the changes.

After the Berlin wall came down on November 9<sup>th</sup> in 1989, the economic and monetary unions of East and West Germany took place on July 1<sup>st</sup> of 1990, and the political union soon after on October 3<sup>rd</sup> of the same year. This was the start for the deepest and most radical economic reforms. Western Germany institutes of labor market were immediately transferred to the lands of East Germany: strong trade unions emerged, high level of social standards including the wage rate, the labor law was effectively enforced. Significant dramatic and unpalatable consequences for the local labor market of East Germany stemmed from this quick transformation. More than one third of work places were destroyed and the unemployment grew considerably.

After the sharp splash of unstable employment in the beginning of 1990-s there was a consistent rise of average tenure from 7,6 year in 1996 to 10,6 years in 2005 in East Germany. The level of employees with tenure up to 5 year was around 58% in 1996 while in 2005 only 35% of all employed had tenure of less than 5 years. The interesting phenomena here is that the temporary employment have been developing constantly in these years. The number of workers with fixed-term contracts becomes bigger and bigger.

Russia also suffered a strong economic shock after the USSR disintegration but the transition had diametrically opposite characteristics. Although a massive reallocation of human capital took place, the transformation process on the Russian labour market was characterized by relatively small declines in employment, moderate increase of unemployment and high (voluntary) labour turnover. These developments can be explained by two factors: underemployment and high wage flexibility, (Обзор занятости в России, 2002). There were no trade unions or other institutional or financial opportunities to back up the high level of wages; there were no high social standards and effective enforcement of laws as well.

Russia watched the constant growth of unstable employment since the beginning of 1990s. The rate of temporary employment increases gradually from 5% in the middle of 1990s to 13% in 2006. The average tenure fluctuated during the reforms period and shrank from 8,1

years in 1994 to 6,8 years in 2005. The percentage of those working for more than 10 years at the same place decreased for more than one forth.

The main idea of this paper is to investigate the dynamics of job stability in Russia and in East Germany and try to explain the factors of job stability. It seems that job stability in East Germany should decline as it is in West Germany (see Bergemann and Mertens, 2004) but it does not, in the opposite the average tenure increased. It seemed that job stability in Russia should increase as the strict employment protection legislation must have contributed to the growth of average tenure but Russia faced a constant decrease of it. What is there behind the difference of job stability in two countries? How much do the indicators of job stability vary in East Germany and in Russia? What factors determine the tenure and temporary employment? Are they the same for Russia and Germany? This is not a full list of questions that we are going to tackle here.

The main objective of our research is to analyze the factors of job stability in Russia and East Germany with the help of the **unique methodology and micro panel data sets**. Two representative and highly comparable data sets are used: the RLMS for Russia and GSOEP for East Germany. Although a large number of studies have been devoted to this topic, most research was constrained to single country case studies or cross-sectional country comparisons. In contrast, we intend to perform a comparative analysis (based on panel data) of job stability indicators in two countries with a similar institutional history and labour market characteristics before 1990, which have developed different labour market situations and institutional settings ever since.

The paper proceeds as follows: the second paragraph provides the information on definitions and indicators of job stability used in the literature. The next paragraph presents some theoretical assumptions for the reasons of job stability decrease. We discuss the results of the previous relevant research in the fourth paragraph. The fifth part describes the two data sets and the methodology. We show different descriptive statistics on the current labour market situation of East Germany and Russia and give the main findings of our research in the last paragraph of the paper. At the end of the paper we placed summary and main conclusions.

## **2. Job stability indicators**

On the objective level, the following indicators of job instability are usually applied: rates of non-permanent employment (e.g. temporary, casual, seasonal work, see e.g., Pearce 1998), low tenure and levels of unemployment (Carlin and Soskice, 1990), labour turnover (Valetta, 1999). On the subjective level, two indicators are studied: the probability to loose one's current job and the fear of losing it (Sverke et al., 2002).

This paper concentrates on two objective indicators of job stability, but subjective indicators will be the subject for the future work. We define **job stability** as long-term employment (on the basis of permanent contract) during which the employee provides the performance agreed upon in the labour contract while the employer guarantees regular payment and takes on the social responsibility for the employee's job security. In contrast, **job instability** means lack of any guarantees for a long-term relationship with the particular employer due to different reasons.

The first objective indicator of job stability we take is tenure. It is often used as the main indicator of job instability in a country (Neumark et al., 1999; Marcotte, 1999; Sousa-Poza, 2004). The advantage of this indicator is that tenure allows us to take up a longer time perspective. Moreover, this information refers to respondents' current employment situation which are more valid than information about past experiences with several previous employers. Some studies pay special attention to the determinants of tenure, i.e. individual characteristics, the current situation on the labour market and characteristics of the work-place (Mumford, Smith 2004). According to their results, the core factors determining tenure are regional unemployment rates and the type of industry.

Following Pearce, we also consider temporary work to be one of the best indicators of job stability, as temporary employment implies uncertainty and instability by itself (Pearce 1998). In the case of temporary employment, both employee and employer know that their relations are temporary leading to particular behavioural patterns from both sides. From one hand employees have less opportunity for career growth, lack of special knowledge, smaller wages and lack of social security. From the other hand employees demonstrate less loyalty and responsibility.

The different types of temporary employment highly spread in market economies: fixed-term contracts, contracts for particular tasks, on-call workers, temporary agency workers, casual workers, seasonal workers and others. Scholars discuss temporary employment in the context of flexibility of the labour market, its segmentation, insecurity and instability of job places, social-economic consequences, income differentiation and poverty problems (Polivka, 1996; Cebian and others, 2000; Kalleberg, 2000; Hipple, 2001; Blanchar and Landier, 2001; Campbell and Burgess, 2001; Booth, A and others 2002; De Witte and Naswall, 2003; Gimpelson and Kapelyushnikov, 2006; Hubler D. and Hubler O., 2006).

So we take two objective indicators to dwell on job stability in Russia and East Germany: tenure and temporary employment.

### **3. What determines job stability?**

Job stability constitutes a main concern of economic and sociological labour market research. In both disciplines, job stability is discussed in the context of internal labour markets (Doeringer, Priore 1971; Sorensen 1983; Milgrom, Roberts 1992; Kalleberg et al. 2000; Gerlach, Stephan 2005). From the perspective of the firm, internal labour markets have at least two functions: they provide incentives for performance and increase labour efficiency (Groschen, Levine 1998). Different economic approaches can be applied to explain these features of internal labour markets on the basis of long-term employment relationships. To begin with, long-term employment relations constitute the optimal matching for risk-averse employees and risk-neutral employers (Milgrom, Roberts 1992). Secondly, employees will only invest into firm-specific human capital under the perspective of a long-term relationship with the employer (Becker 1975). Thirdly, on-the-job training requires a stable cooperation system. Finally, firms can only apply efficiency wages (Lazear 1981; Shapiro, Stiglitz 1984; Abraham, Faber 1987) and tournaments (Lazear, Rosen 1981; Milgrom, Roberts 1992) as instruments to increase labour performance within the framework of internal labour markets.

Other economic and sociological approaches concentrate on the institutional level and investigate internal labour markets as systems of closed positions (Doeringer, Priore 1971; Sorensen 1983; Milgrom, Roberts 1992; Kalleberg et al. 2001). Closed positions systems are characterized by only few entry-ports and career paths that follow vacancy chains within the position system (Doeringer, Piore 1971; White 1970). Wages are usually allocated according to a person's hierarchical position rather than her individual performance (Sorensen 1977). The same argument holds for promotions: here, it is not only a persons individual performance that leads to a promotion, but also her position within the system of vacancy chains. Thus, these features can produce wage rigidities and mismatches between candidates and vacancies (Blinder, Choi 1990).

Finally, social closure processes on internal labour market increase individual security of insiders on the cost of the outsiders to the firm. The insider-outsider-theory stresses that closure processes thus diminish labour market dynamics (Lindbeck, Snower, 2002). However, psychological studies on subjectively perceived job insecurity show the importance of job security for employees' mental health and subjective well-being (for an overview see Sverke et al. 2002). Especially recent economic and psychological studies of job stability have reacted to the complexity of the issue by combining objective and subjective indicators in the analysis of job stability (Hubler, Hubler, 2006; Naswall, DeWitte, 2003).

The growing interest of social scientists to study job stability over the last decade stems from the fact that various factors –globalization, migration, increasing female labour market

participation and labour market reforms – have led to a general decrease of job stability. This trend has become manifest not only in growing labour market mobility and decreasing tenure (Gregg, Wadsworth 1995; Marcotte 1999; Neumark et al. 1999; Housman, Polivka 2000; Sousa-Poza 2004), but also in the increase of temporary employment (Grotheer and Struck, 2006; Erlinghagen, 2006; Koehler et al. 2006). For employers, this development improves external-numerical labour flexibility. For employees, depending on human capital and other individual characteristics, this tendency generally jeopardises employment security. However, this process is accompanied by a growing polarization between internal and external labor markets (Gregg, Wadsworth 1994; Hudson 1998; Grotheer 2007; Hubler, Hubler 2006; Koehler et al. 2006).

We could divide all the factors that influence job stability at least into four groups: 1) globalization and technological progress; 2) institutional background; 3) economic structure and business cycles (labour demand); and 4) changes in personal characteristics and preferences (labour supply).

*Globalization and technological progress.* Both Germany and Russia experienced the globalization effects. According to Mills and Blossfeld globalization raises the uncertainty in the society that could not help having the impact on the job stability. The increased competition, technological innovations and new communication facilities make individual and firms react faster to the market changes. Globalization and technological progress could effect job stability in both ways: on the one hand, the growth of opportunities allow people to choose the most appropriate alternative to work at, the search and match area became wider (not only within the country but between countries). In this case job stability decreases as the number of job shifts goes up. On the other hand strong competition and fear of unemployment makes people stay at their working places even at those with bad conditions this contribute to job stability growth. (Auer, 2005).

*Institutional background.* The two countries discussed have their own way to adapt to the global changes as they have different institutes (formal and informal) to regulate their labour markets. Such formal institutes as employment legislation and trade unions have the most significant impact on job stability. The previous research showed that the stronger the employment legislation, the higher the percentage of temporary employment (Cahuk and Postel-Vinay, 2001) and the higher the proportion of employees with long tenure (more than 10 years) (World Employment Report, 2004-2005). It means that employment protection legislation could cause both increase and decrease of job stability in the country. Unions also affect job stability but this influence is only positive (at least for members and insiders). High

wages, the possibility to solve the problems with management, and lay off restrictions that trade unions provide make people keep their jobs.

The main distinctions of the institutional backgrounds of the two countries that could affect job stability are summarized in the table below. Both Russia and Germany have a rather rigid employment protection legislation (EPL), but in the late 1990-s Germany implemented some liberalization of EPL concerning temporary contracts. In Russia the issue of temporary employment remains strictly regulated. Permanent standard workers enjoy rather good protection in both countries: employers have to notice the employees about the redundancy in advance of 2 month in Russia and in advance of at least 1 month in Germany. Moreover, employers have to provide the severance pay to the redundant employees: in Russia the sum equals the amount of three monthly wages. In Germany, employers often avoid dismissals and try to achieve more flexibility by means of natural fluctuation or internal flexibility. The reason is the high degree of legal insecurity related to lay-offs: if employees bring an action against their dismissal, courts need a long time to decide whether the dismissal procedure was legally correct or not. Additionally, even when their decision is in favor of the employer, courts can still oblige employers to pay compensations.

Although the Russian EPL is more rigid, the enforcement of it is very weak, while in Germany the legislation is followed and its fulfillment strongly controlled. Very strict EPL in Russia softens by bad enforcement, while rigid EPL in East Germany followed very well. That means labour legislation of both countries can contribute to job stability increase concerning tenure of insiders, and job stability decrease referring to the rise temporary employment.

The union coverage again is higher in Germany than in Russia, although the unions in East Germany do not have such power as in West Germany. So we could expect that job stability in East Germany will be higher than in Russia.

Minimum wage is officially set up in Russia, while in Germany there is no unique minimum wage, it could be set within the industry. However the sum of minimum wage in Russia is too small, it comprise only 10% of the average wage. The size of minimum wage in Germany (in case it was set up) much more higher what makes it easier to shift from one job to another at least in the same industry.

**Table 1**  
**The main indicators of the institutional backgrounds of Russia and East Germany**

	Russia	Germany
The rigidity of EPL*	high	medium
	3,3	2,6
Time in which the employer have to notice the employee about the future separation	In advance of 2 month	In advance of at least 1 month and more (depending on tenure)
The amount of the severance pay	Equals the sum of wages for 3 months	EPL does not say anything, but it could be defined by collective agreement
Enforcement of the legislation	Low	High
Union coverage	Low	High (68%)
Minimum wage	Low	High
Minimum wage in Euro	19,4	Industry setting
Average wage in Euro	182	3.028 (gross wage)
Minimum wage/average wage	0,1	-
Unemployment benefit in Euro (average sum)	89	775
Number of months during which unemployment benefit is paid	Six months	Depends on tenure: 12 months after two years

\* the figures are taken from “Обзор занятости“, 2001

The first two institutes we described were relevant for employers. The more important thing for the supply side is the income security institutes that also influence job stability. However, several factors are important to determine the exact degree of income security employees usually face: average wages (if wages are high, voluntary job shifts are less frequent); unemployment benefits. Very good protection of unemployed (high unemployment benefits) in Germany could also serve for less job stability comparing to Russia as German employees bare less risk when quitting a job and looking for another one.

*Labour demand.* The factors from the demand side often include economic structure and business cycles. During the economic growth the job stability could shrink, as employees become more flexible while searching for the appropriate job. As well as employers hire more new personnel to adapt to the market demand. All this positively affect temporary employment and negatively affects tenure what makes job instability grow. Russia of 2000-2006 serves as a good example of it when the economic growth caused the creation of many new work places on temporary basis as well. During economic recession there are more redundancies then lay offs at will, employees try to keep their job and their tenure is rising then.

*Labour supply.* Personal characteristics and wishes, social and demographic structure comprise determinants from the supply side. For instance mass entrance of women on the labour market in Europe could also explain the less job stability (short average tenure) among women. According to the previous research the main personal characteristics that affect job

stability is gender, education and age (Bergemann and Mertens 2004, Mumford and Smith 2004).

So we could see that all the factors mentioned above could exert strong influence on job stability both in Germany and in Russia. The empirical part of this paper is focused on respondents' characteristics rather than on labour legislation and economic growth. We also cannot control for all the enterprise variables as we have data limits. For instance we could not obtain the information on the industry sector of the enterprise for Russia, so we had to exclude this variable from our analysis to get the comparable results. Before stating the empirical analysis it is worth observing the existed research results to make the significance and implication of our own research more clearly. The next chapter allows us to overview the results of previous research in more detail.

#### **4. Previous research results**

The results of existed research showed that job stability in the USA goes down (Farber, 1993; Farber, 1997; Neumark, 2000). According to Farber (1997), men are more likely to change work place than women. Less educated and young men have more opportunity to be unstable employed that leads to the wage losses for these groups. Switching to the literature on the determinants of temporary employment Housman (2001) disclosed the reasons of using temporary staff for employers in the USA. The main factors were listed: size of enterprise, territory, trade unions, system of incentives, seasonal aspect. Using the USA household data Farber (1997) speculates that previous job loss or spells of inactivity have a strong impact on the probability of being temporary employees. Economists Wiens-Tuers and Hill conducted a relevant study on the factors of temporary work in the US, they tried to answer the question: Is movement into temporary work a response to a set of choices or a set of constrains? The paper demonstrates that both push and pull factors are at work although how they operate is not clear. The investigators sum up that a personal event like birth of a child, change of marital status are the push factors as well as low income and welfare.

More interesting results got Gregg and Wadsworth (1995) for Great Britain; they showed the tenure shrank for more than 20% from 1975 to 1995. This shortage is valid only for men, as tenure for women continued to be low. They explained this by the fact that more women entered the labour market after 1975. Labour turnover is high among elderly workers with low education and qualification. The researchers made the conclusion that the labour market is strongly segmented, and job instability increased dramatically in the second segment of low qualified workers engaged in non-standard employment. Other findings of Mumford and Smith (2004) demonstrate the importance of work place characteristics along with the personal characteristics.

Uzzi and Barsness (1998) disclosed the factors of temporary employment from labour demand perspective. They found out that management in Britain use temporary workers not only to gain flexibility to meet product market uncertainty, but to buffer the firm against labour uncertainty that may be unrelated to instability in the firm's product markets or its level of unionization. They also revealed that the relationship between unionized labour and the use of temporary workers varies curvilinearly with the level of unionization. The firms with moderate levels of unionization hire more temporary workers, while the enterprises with high and low level of unionization use temporary contracts much less. Their results suggest that a variety of governance mechanisms – bureaucratic, human, and technical – have a disproportionately strong enabling effect on use of temporary employment. The results also imply that although firms may face strong pressures to adopt contingent employment structures for the purpose of lowering costs and increasing flexibility there are “hidden managerial costs” associated with the use of contingent workers. As Housman Uzzi and Barsness came up with the conclusion that fixed-term contractors appear to be affected by organizational structures: size, age, unionization, bureaucratic controls as well as recent changes in organizational design and job-related technologies.

Rather new paper was submitted by Salladerre and Hlaimi (2007) based on the European Social Survey, which is totally devoted to the issue of the factors of fixed-term contracts in 19 European countries. The main conclusions were as follows the younger the respondent the more likely he/she will be a fixed-term employee, this supports the fact that temporary employment seems to become the stepping stone to a permanent job. The probability of being in a fixed-term contract is negatively correlated with the trade-union membership. An episode of unemployment leads to a decline in the future probability to find an employment of unspecified duration. The most important for us result from this paper is that women are more frequently associated with this kind of flexible labour relations. The researchers also stress that fixed-term employment usually comprised from immigrants

The results of previous investigations of job stability in Germany are rather contradictory. According to Winkelmann and Zimmerman (1998) job stability is raising as the number of job shifts decreases. On the contrary Bergeman and Schnaider (1998) claimed that job stability shortened, as tenure declined considerably. Grotheer and Struck (2003) paid their attention to the increase of temporary employment which contributed to the fall of job stability. Bergemann and Mertens (2004) proved job stability decline in West Germany from 1980-s to the end of 1990-s. Tenure decreased from 9,4 years in 1984 to 7,5 years in 1997. They showed that the level of education does not have much effect on job stability it is the age of employees which explains frequent job shifts for younger workers. The main analysis of Gerlach and

Stephan (2005) is that elapsed tenure is significantly longer in firms applying collective contracts. The effect of the union membership again positively effects tenure and wages as well.

A series of papers devoted to job stability was published in the book of “Trends in Employment Stability and Labour Market Segmentation” (2006) which is highly relevant for our study. One of the papers was written by Grotheer and Struck, who used the both objective indicators as well as we do: tenure and temporary employment. The difference is that they use employers data set. The main idea of the authors is that labour market of East Germany suffered both processes of job stability increase and decrease. They argue that after unification tenure of insiders grew considerably while tenure of outsiders significantly decreased. High mobility rates and high rate of temporary employment in the second sector of labour market make it difficult to find a new job both for unemployed and newcomers.

There is lack of literature on the factors of job stability in Russia, most of studies are devoted to the consequences of short tenure or temporary contracts rather than to their determinants. The important work in job stability analysis was done by the authors of “Обзор занятости”(2001), where all tendencies and dynamics as well as descriptions and explanations are given. The scientists wrote that tenure in Russian firms is rather small, more than 50% of newcomers leave their first place of work in a year. Tenure was constantly shrinking during the transition period. Young men with low qualifications and education, engaged in trade and service sector are much more likely to change the job. The authors also say that the structural changes in economy and the labour market segmentation affect job stability in Russia.

Another interesting work was done by Lehmann and Wadsworth (1999), who compared the situation in Russia, Poland and Great Britain. They conclude that tenure is much lower in Russia than in Poland and Great Britain. They found out that there is almost no wage return on long tenure in Russia comparing with two other countries. Inna Maltceva (2006) who does the empirical research on return from specific human capital investigates the determinants of tenure as well. Her findings were the following: long term employment was likely for women then for men. This is the contradiction to the existed research results on Germany, where women are less likely to have long tenure. One of the explanation to this fact could be that the rate of employment among German women was rather small before 1990-s, while in Russia the level of labour market activity among women was very high.

As you could be convinced the outputs of the job stability surveys strongly depend on the indicators and methods the authors use. We should mention that the results of our research do not contradict with the conclusions of the previous findings. But firstly let us turn to the description of the methods we use in our empirical analysis.

## 5. Data and Methodology

Two highly comparable household data sets are used: the Russian Longitudinal Monitoring Survey (RLMS)<sup>1</sup> and the German Socio-Economic Panel Study (GSOEP) (two samples for East and West Germany).<sup>2</sup> For each country, waves were pooled for the years of 1996-2005.<sup>3</sup> Our multivariate models comprise 21 631 employees for East Germany and 17 469 employees for Russia.

As we mentioned before we analyse two indicators of job stability: tenure and temporary employment. In both data sets, tenure is measured as the difference between the time when a respondent started to work with the current employer and the date of the interview. The respondents are asked about the start date of their current job in both data sets.

Temporary employment was identified with the help of question about the respondent's type of contract (on temporary contract or on permanent contract) for Germany data. It must be stressed that we have to take two variables to speak on temporary employment in Russia. We use the same variable based on the type of contract (taken from LFS<sup>4</sup> survey conducted by Rosstat) in the description analysis. While estimating econometric model we have to use RLMS data set and substitute proxy for temporary employment by casual employment. Based on the answers to questions about their main job and occasional employment we assigned individuals to one of the two categories: noncasual employees or casual workers. The noncasual (or permanent) workers in this study comprise those who gave an affirmative answer to the question about having a primary regular job (currently employed or on paid or unpaid leave). We referred to casual workers only those who answered that they did not have any primary job and at the same time, they were engaged in occasional work.

We do understand that the survivor rate analysis is the most appropriate way to analyse job stability by tenure but we do not have any cases of the completed spells of tenure for Russia, as RLMS does not provide the appropriate information. To evaluate the determinants of tenure we used OLS regression and applied the Heckman correction model to eliminate the

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<sup>1</sup> RLMS – Russian Longitudinal Monitoring Survey is an annual representative panel study of Russian households. The total sample is about 10.000 people per year. The RLMS covers many topics, such as health, job characteristics, incomes, education, social feeling and etc. The comparable data is available from 1994. The RLMS data are provided annually by the Institute of Sociology Russian Academy of Science, Moscow.

<sup>2</sup> The SOEP is an annual representative panel study of German households, concerning a wide range of different questions (job, health, incomes, social feeling and etc.). The survey began to hold in 1984, and for East Germany – in 1990. the total sample is about 20.000 people for the last years, and for the East Germany is about 3.500-4.500 people. The data is provided by the Deutsches Institut für Wirtschaftsforschung (DIW), Berlin.

<sup>3</sup> For Russia, however, there are no data available for the years 1997 and 1999.

<sup>4</sup> LFS – Labour Force Survey is held by Russian Statistical Centre since 1992 on the yearly (and from 1999 on the quarterly) basis. The total sample comprises about 250-270 thousand respondents for each year. It is totally represented for the whole country and regions as well, sample is based on the last census data. The access to the micro data is restricted.

selection bias. In order to assess the determinants of temporary employment we did probit regression and corrected it for selection bias by Heckman technique.

We test here the following hypothesis (based on the preliminary statistics analysis and literature observed above).

H1: Our main assumption is that people are different in East Germany and Russia as they have different cultural and historical background, so they should behave in different way. So we expect that the selected personal predictors have different influence on job stability in two countries.

H2: Women in Germany (as in other European countries) are more likely to have temporary employment than men. Very often temporary employment coincides with part-time employment what is in great demand for women in order to fulfill family roles as well. In Russia exactly men have better chances to be temporarily employed (on casual basis), as women prefer more stable jobs.

H3: Young employees tend to have less tenure and work on temporary basis more often than elder groups in Germany (see Grotheer and Struck, 2003; Bergemann and Mertens, 2004). In Russia the rate of mobility is high for all age groups, casual work is also widely spread among elderly people (see Karabchuk, 2006).

H4: We assume that in Germany more educated and more qualified employees have lower tenure comparing to less educated and less qualified. Good human capital allows people to change jobs more frequently as they bare less risk of not finding a job. In Russia less qualified and less educated people have lower tenure and more frequently engaged in casual work.

H5: We claim that family characteristics have the same impact on job stability both in East Germany and in Russia. Those employees with spouse and children will be more stable, as they have to support their family regularly. While the big income of other family members allows people to shift jobs without risks or be on temporary contract.

H6: Work place characteristics again have the same impact on job stability in two countries. The bigger the enterprise is, the longer the tenure is. Working in a big company an employee has more opportunities for carrier growth, more possibilities to become a trade union member and more chances to get higher wage. Job stability of those working at the private companies is lower that of those working in state owned enterprises.

H7: Type of settlement as well as regional level of unemployment affect job stability in Russia and East Germany in the same direction. Small villages provide fewer opportunities for job shifts and temporary contracts. The high rate of unemployment in the region makes people keep their jobs from the one hand and agree to work on temporary basis from the other hand.

So tenure is positively connected with the level of unemployment while possibility to have temporary/casual work has negative link to the regional rate of unemployment.

The following variables were taken as the determinants for the main equation: gender, age (5 dummy age groups), education (3 dummies), marital status, number of children, income of other household members, occupation (5 dummies), type of the ownership, enterprise size, type of the settlement, regional unemployment rate, region dummies, year dummies. As we are concerned with the impact of household arrangements on household members' job stability, this aspect is likely to be relevant for our model as well. Thus, next to the individual characteristics of age, education, marital status and other household income, we also include three dummy variables, controlling for the age of the children in the household, into our selection equation.

**Table 2**  
**Independent variables for tenure and temporary employment models (GSOEP and RLMS data sets)**

<i>Determinants of tenure</i>	<i>Determinants of temporary/casual employment</i>
<i>Individual characteristics</i>	<i>Individual characteristics</i>
gender	gender
Education (3 dummies)	Education (3 dummies)
occupational position (5 dummies)	-
age	age
part-time employment (up to 30 hours per week)	-
<i>household characteristics</i>	<i>household characteristics</i>
other household income (difference between total net household income and net individual income)	other household income (difference between total net household income and net individual income)
children < 16 in the household	children < 16 in the household
<i>Work place characteristics</i>	<i>firm level</i>
Type of ownership (private or state)	-
firm size (5 dummies)	-
<i>labour market situation</i>	<i>labour market situation</i>
Type of settlement (city or village)	Type of settlement (city or village)
regional unemployment rates	regional unemployment rates
Regional dummies	Regional dummies
Year dummies	Year dummies

Finally, although the two models for East Germany and Russia are identical in most respects, there are two differences. First, civil servants had to be excluded for East German as our explanatory model doesn't apply to this group of employees (n=1.280). Second, regional

unemployment rates were measured at different levels for East Germany than for Russia. The most aggregate regional level for East Germany would be the five so-called Bundeslander and Berlin. However, to increase variation at the regional level, 22 smaller administrative units were used instead. For Russia, the administrative units, 38 oblasts, were used. The problem of endogeneity with age variable is also worth mentioning; we estimated the same model of tenure determinants for different age groups and had almost the same coefficients. That is why we include age in the right part of the equation.

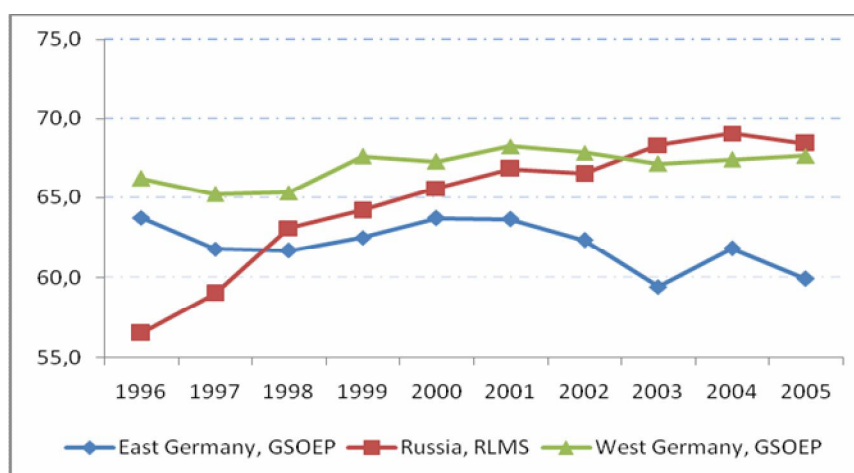
We also should mention that we understand that the industry sector plays a key role for collective bargaining and for job stability as a consequence. Although trade unions have considerably less bargaining power in East Germany than in the West, we still assume industry sectors to be relevant for job stability in East Germany<sup>5</sup>. Unfortunately we could not include this variable of industry sector into our analysis as we do not have such information for Russian model. In order to have the comparable results we have to exclude the industry sector from German model as well.

## 6. Descriptive results and main findings

### Descriptive analysis and dynamics of the job stability

The analysis of the key labour indicators helps to get a first overview of the differences between East Germany and Russia. Graphs 1 and 2 indicate annual employment and unemployment rates for the whole population between 17-65 years during the investigated period.

**Graph 1. Employment rates in Russia and in Germany, 1996-2005 (RLMS and GSOEP data)**

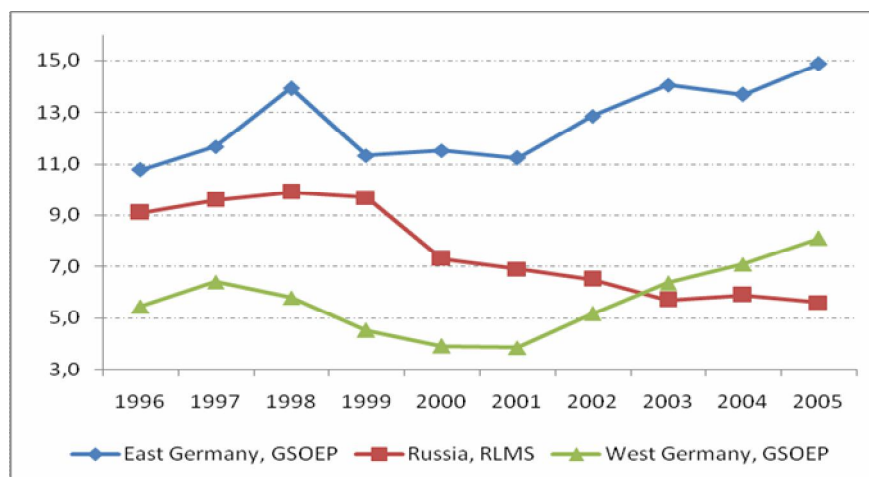


The employment rates steadily increased during the investigated period in Russia (the rise from 56% to 68%) while in East Germany the employment rates fluctuated and declined

<sup>5</sup> Preliminary estimations for East Germany alone indicate that tenure is indeed influenced by industry sectors. Tenure seems to be considerably lower, e.g., in the private services and the retail industry than in the metal industry, which is traditionally characterized by strong union power

from 64% to 59% by 2005 year. West Germany has more or less stable employment level of 65-67%.

**Graph 2. Unemployment rates in Russia and Germany, 1996-2005 (RLMS and GSOEP data)**

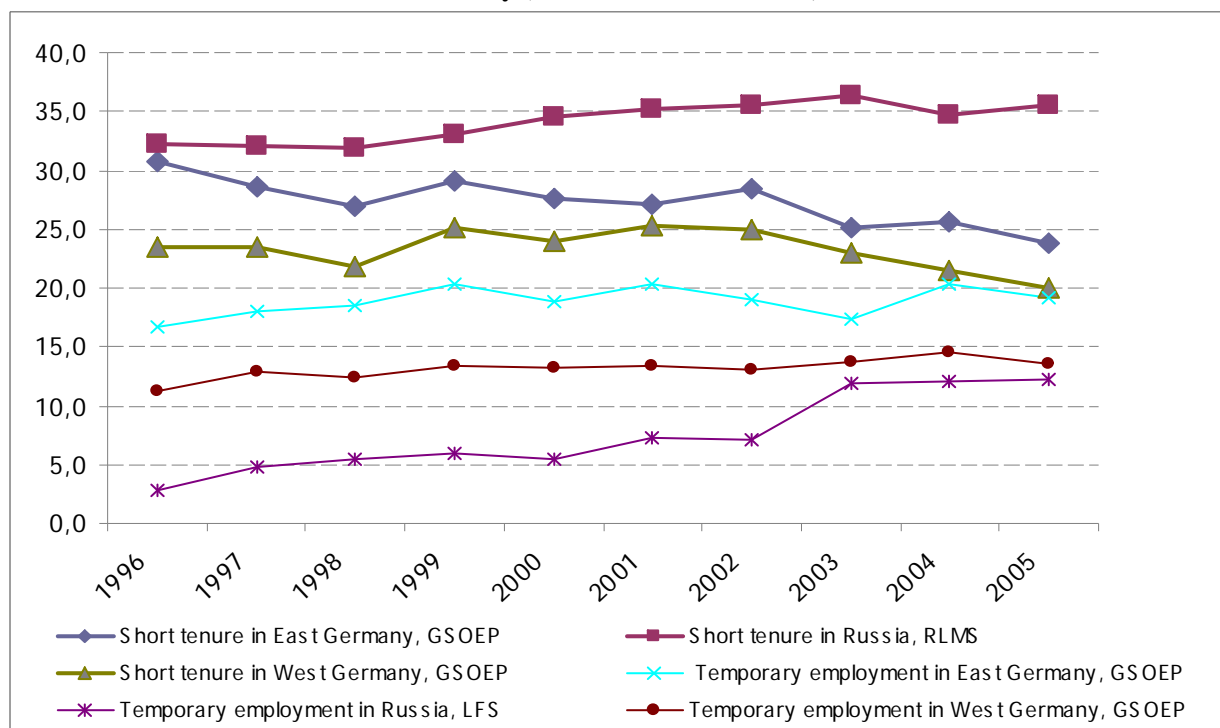


The unemployment rates have much more different dynamics. In Russia we could see the constant shortening of unemployment from 9% to 6% of economically active population. In West Germany the unemployment was also shrinking until 2001 after which it sharply went up to about 8%. East Germany has the biggest unemployment rates during 1996-2005 comparing to the West Germany and Russia. Unemployment grew from 11% in 1996 to 15% in 2005 in East Germany.

The next graph illustrates the dynamics of the short tenure and temporary employment in the surveyed countries. Russia goes ahead by the indicator of short tenure, as the level of employees with tenure for less than 2 years is about 35% in 2005. The short tenure rates in East and West Germany diverge from the dynamics of short tenure in Russia, they have been declining since 1996 and in 2005 they were equal 24% and 20% accordingly. As for the temporary employment rates, East Germany is the leader here with the level of 19% in 2005. The level of temporary employment in West Germany is rather stable during the whole period we observe (from 10% to 13%). In Russia we see the gradual growth of temporary employment from 3% in 1996 to 13% in 2005 accordingly. So the short tenure speaks for the stability arise in Germany while decline in Russia and temporary employment shows the job stability fall for each country.

We tend to agree with Grotheer and Struck here, that job stability in East Germany has two directions. One is for the insiders whose tenure is growing and another one is for the outsiders who suffer job instability in terms of temporary contracts. These two parallel processes could be explained by deep market segmentation, where temporary workers comprise the second, low-paid segment of odd-jobs.

**Graph 3. The rate of employees with short tenure (less 2 years) and level of temporary employment in Russia and Germany (RLMS and GSOEP data)**



According to the descriptive statistics placed in the table 3 average tenure decreased in Russia (from 7,7 to 6.8 years) and increased in East Germany (from 7,6 to 10,6 years). It is interesting that in East Germany tenure grew in all socio-demographic groups we had identified except employees with lowest education level. Elderly white-color employees who work at the big state enterprises have the highest tenure in East Germany. In Russia we could watch another tendency: the tenure of all identified socio-demographic groups was going down during the research period. Managers of big state firms have the longest tenure in Russia. If average tenure of German women slightly differs from the average tenure of German men, in Russia the difference is more significant. To the contrary the difference of tenure among educational groups is more remarkable in Germany than in Russia (compare primary and secondary education for example). We could do the preliminary conclusion that young, less qualified and less educated employees in East Germany change their jobs more frequently than elderly, highly educated and highly qualified employees. The same statement is true for the Russian labour market, but the position of qualified workers in Russia is better than job stability of civil servants. It could have 2 explanations: 1) service sector dramatically increased and continue to boost, 2) the nature of employment in service sector is highly unstable (too many firms are opened and closed within short period of time). While in East Germany non-qualified workers enjoy longer tenure than qualified workers. We could assume the possible reason for that: less qualified employees have less opportunity to chose/change a job, so they try to keep that one they have as long as they can.

**Table 3**  
**Average tenure by socio-demographic characteristics**

	East Germany		Russia	
	1996	2005	1996	2005
<b>Average tenure</b>	7,6	10,6	7,7	6,8
<b>Gender</b>				
<b>women</b>	7,4	10,9	8,1	7,8
<b>men</b>	7,8	10,4	7,2	5,8
<b>Marriage</b>				
<b>Do not have a spouse</b>	5,3	7,9	6,7	5,8
<b>Have a spouse</b>	8,6	12,5	8,0	7,2
<b>Age</b>				
<b>Age, 17-25</b>	2,05	1,88	1,6	1,4
<b>Age, 26-35</b>	4,55	5,28	4,5	4,0
<b>Age, 36-45</b>	7,34	9,62	8,2	7,5
<b>Age, 46-55</b>	10,35	13,08	12,1	10,7
<b>Age, 56-65</b>	12,63	15,59	15,6	14,8
<b>Level of education</b>				
<b>School (primary education)</b>	5,9	4,3	8,4	6,7
<b>School + college (secondary education)</b>	7,3	10,3	7,2	6,7
<b>University (tertiary education)</b>	8,5	12,4	8,2	7,5
<b>Type of settlement</b>				
<b>Rural area</b>	7,7	10,6	7,6	7,0
<b>Urban area</b>	7,5	10,7	7,7	6,7
<b>Occupation</b>				
<b>Managers</b>	9,9	11,7	4,6	8,4
<b>White-color workers</b>	7,9	14,3	8,9	8,4
<b>Civil servants</b>	8,4	11,2	5,8	5,4
<b>Qualified blue-color workers</b>	4,7	5,8	8,6	6,6
<b>Non-qualified blue-color workers</b>	7,8	10,9	4,6	4,2
<b>Type of ownership</b>				
<b>Private</b>	6,7	9,1	7,0	5,8
<b>State</b>	9,6	14,3	8,5	8,8
<b>Size of enterprise</b>				
<b>Up to 5 employees</b>	4,4	7,7	4,5	4,5
<b>6-20 employees</b>	4,9	8,5	5,9	4,6
<b>21-200 employees</b>	7,1	10,0	8,0	7,2
<b>201-2000 employees</b>	9,8	13,0	9,9	9,7
<b>More than 2000 employees</b>	11,0	13,6	12,8	12,5

The next part of this paragraph allows us to evaluate the real influence of each factor while other things being equal.

*Main findings from econometric analysis*

Our main assumption that Russians and Germans behave differently and personal characteristics play the most significant role was not true. The most valuable result we got is that personal and workplace characteristics as well as local market features have almost the same impact on job stability in Russia and East Germany. Due to the lack of information in the data we do not directly control for the institutional background in the models we apply but the similar coefficients and direction of ties we disclosed tell us that there should be something that

could explain the difference in the tenure dynamics in two countries. This something is the institutional background that we could not observe in these models. So the main conclusion is that job stability in Russia and East Germany differs due to the distinctions in the institutional context but not to some individual parameters.

The following factors were disclosed to have impact on job stability both in Russia and in Germany. It was interesting that to the opposite tendency for many European countries in Russia and East Germany women tend to have more stability, as the tenure is rising for them. Tables 4 and 5 provide evidence that men are more likely to have shorter tenure and to be temporary/casual workers than women in both countries.

The hypothesis H3 was not appropriate as well: age has positive influence on job stability in both countries when we take tenure as its indicator. But when we look at the probability of temporary employment we see that both extreme age groups are more vulnerable to job stability decrease.

It proved to be true that the higher the education and professional qualification the more unstable job a person has. We got the same result both for two countries. Employees with primary education are likely to have longer tenure comparing with those who have tertiary education. The most stable jobs have qualified blue-colour workers comparing to white-colour workers in Germany, while non-qualified blue-colour workers tend to have shorter tenure in both countries. From the one hand this could be explained by the fact that all of these blue-colour workers are employed by the big and middle enterprises which also positively affect job stability. From the other hand the human capital of highly qualified specialists allows them to shift jobs more frequently in searching for the best variant.

Family characteristics negatively affect job instability. In case of having a spouse the tenure goes up, getting married a person gets greater responsibility for the family members and prefer to stay at a certain work place for the longer period to have stable income and some assurance in future.

Work place characteristics have also strong impact on job stability indicators. The bigger the company the longer is the tenure. The state owned enterprise provide less temporary work places, that is why the job tenure will be longer in the state owned companies. All this seems to verify our 6<sup>th</sup> hypothesis.

Characteristics of the local labour market also influence job stability. The level of regional unemployment has negative effect on tenure. It means that if the level of unemployment is high in the region employees are afraid to lose their jobs and try to keep the ones they have. They could also agree to be temporary workers in case of the lack of jobs in

the regions. Employees living in the rural area have longer tenure but are more likely to be hired on casual basis.

**Table 4. Determinants of tenure, all population aged 17-65 years old, RLMS and GSOEP data**

Logarithm tenure	Russia (RLMS)				East Germany (GSOEP)			
	OLS regression		Marginal effects from Heckman correction		OLS regression		Marginal effects from Heckman correction	
	coef	se	coef	se	coef	se	coef	se
<b>Gender (1 – male)</b>	-0,264***	0,034	-0,244***	0,016	-0,075***	0,02	-0,075***	0,01
<b>Age, 17-25</b>	-1,508***	0,043	-1,226***	0,024	-0,970***	0,03	-1,104***	0,02
<b>Age, 26-35</b>	-0,553***	0,036	-0,517***	0,020	-0,438***	0,02	-0,391***	0,02
<b>Age, 36-45</b>	Base category							
<b>Age, 46-55</b>	0,331***	0,040	0,417***	0,019	0,183***	0,02	0,304***	0,02
<b>Age, 56-65</b>	0,696***	0,059	1,099***	0,022	0,392***	0,03	0,754***	0,02
<b>School (primary education)</b>	0,242***	0,047	0,450***	0,022	0,076	0,04	0,139***	0,03
<b>School + college (secondary education)</b>	0,164***	0,037	0,174***	0,018	0,057**	0,02	0,140***	0,02
<b>University (tertiary education)</b>	Base category							
<b>Marriage (1- yes)</b>	0,118***	0,035	-0,028*	0,017	0,226***	0,02	0,076***	0,02
<b>Number of children</b>	-0,016	0,019	0,012	0,009	-0,081***	0,02	-0,014	0,01
<b>Other household income</b>	-1.6e-06**	1e-06	1.3e-06**	5e-07	-0,012	0,01	0,065***	0,01
<b>Part-time employment</b>	-0,096**	0,038	0,004	0,017	-0,312***	0,03	-0,161***	0,02
<b>Public sector employee</b>	0,342***	0,029	0,090***	0,013	0,335***	0,02	0,191***	0,01
<b>Up to 5 employees</b>	-0,685***	0,070	-0,331***	0,031	-0,721***	0,03	-0,437***	0,03
<b>6-20 employees</b>	-0,572***	0,049	-0,260***	0,023	-0,614***	0,03	-0,334***	0,02
<b>21-200 employees</b>	-0,258***	0,040	-0,110***	0,018	-0,446***	0,02	-0,221***	0,02
<b>201-2000 employees</b>	0,109***	0,041	0,032	0,019	-0,166***	0,02	-0,049*	0,02
<b>More than 2000 employees</b>	Base category							
<b>Managers</b>	0,081	0,065	0,019	0,033	0,149**	0,06	-0,021	0,05
<b>White-color workers</b>	Base category							
<b>Civil servants</b>	-0,312***	0,045	-0,121***	0,019				
<b>Qualified blue-color workers</b>	-0,187***	0,043	-0,059***	0,020	0,149***	0,02	0,140***	0,02
<b>Non-qualified blue-color workers</b>	-0,843***	0,053	-0,291***	0,026	-0,570***	0,03	-0,465***	0,02
<b>Urban area</b>	-0,175***	0,039	-0,234***	0,018	-0,085***	0,02	-0,081***	0,01
<b>Region unemployment rate</b>	0,015***	0,005	0,027***	0,003	0,001	0,00	0,007*	0,00
<b>Number of observations</b>	17 469		29 266		21 631		36 822	
<b>r2_a</b>	0,267				0,297			
<b>athrho</b>			-0,996				-2.42***	
<b>Control for dummy regions</b>								
<b>note: .01 - ***; .05 - **; .1 - *;</b>								

**Table 5**  
**Marginal effects of probit regression for the probability of temporary/casual employment**  
**in East Germany and in Russia, 1996-2005, GSOEP and RLMS data**

Probability of being temporary/casually employed	Russia (RLMS)		East Germany	
	Marginal effects	Standard errors	Marginal effects	Standard errors
Gender (1 – male)	0,024***	0,004	0,016*	0,01
Age, 17-25	0,021***	0,006	0,211***	0,03
Age, 26-35	0,012***	0,005	0,014	0,02
Age, 36-45	Base category			
Age, 46-55	0,007	0,006	0,047*	0,01
Age, 56-65	0,050***	0,010	0,019**	0,02
School (primary education)	0,064***	0,007	0,255***	0,03
School + college (secondary education)	0,024***	0,005	-0,019	0,01
University (tertiary education)	Base category			
Marriage (1- yes)	-0,041***	0,005	-0,049***	0,01
Number of children	0,010***	0,002	0,034***	0,01
Other household income	-1,1e-07*	1,4 e-07	0,007*	0,00
Urban area	-0,027***	0,005	0,085*	0,02
Region unemployment rate	0,005***	0,001	0,001	0,00
Number of observations	29 102		23877	
Pseudo R2	<b>0,094</b>		<b>0,067</b>	
<b>Control for dummy regions</b>				
<b>note: .01 - ***; .05 - **; .1 - *;</b>				

## Conclusions

The paper was devoted to the problem of job instability in Russia and in East Germany. The main goal was to identify the determinants of tenure and temporary employment in these countries. The descriptive analysis showed that tenure in East Germany is constantly growing while it is gradually declining in Russia. At the same time the level of temporary employment is considerable in both countries and tends to go up.

We found out that almost all personal, family, work place and local labour market characteristics influence tenure and temporary/casual employment in the same way. That led us to the main conclusion that institutional characteristics which really differ in the investigated countries play the key role in the explanation of the job stability distinctions. These institutional parameters could not be observed in the estimated models so the next step for the future research will be to apply the appropriate model to grasp this impact.

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