Job Creation and Job Destruction in Newly Established, Privatized, and State-Owned Enterprises in CIS countries

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Abstract

The article describes newly created private firms are those that have been private since they were established, i.e. the enterprises, which were established after the transition process started. In the economic literature, they are also referred as de novo enterprises or firms. The paper reports new and unique firm level survey evidence to investigate the micro economic nature of the growth process and structural change in CIS countries. In particular, we investigate gross job creation and destruction in newly established private (de novo) firms and "traditional" ones, being state owned and privatized firms and find that the de novo private firms are the most dynamic ones in terms of job creation. As result of the research we find that state owned enterprises are not significantly different in their employment behavior from privatized firms, where mixed effects of competition on employment growth. Therefore, the result could be evidence that suggests efficiency wage payments are important for employment growth in couple of CIS countries.

Key words: State-owned enterprises, privatization, competition, market economy, centralized economy, property reform

Introduction

The primary purpose of the research is to analyze the job creation and job destruction processes in CIS countries (CIS countries are Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Uzbekistan and Ukraine), which are currently experiencing transition process from formerly centrally planned economies to market ones. Research results will allow measuring degree of restructuring of the national economy, and to identify and analyze policy variables, which have effect on the work of *de novo* enterprises, one of the "engines" of the transition process.

It is commonly agreed that the objectives of the transition process from planned to market economy are (Roland, 2000):

1. Improving allocative efficiency by correcting the distortions of socialism through the introduction of flexible relative prices and the creation of a competitive market environment open to a world economy;
2. Stabilizing the macro economy, which is necessary for a correct functioning of the price system;
3. Providing better incentives and corporate governance arrangements to make firms respond to market signals;
4. Creating government institutions "adequate" for a market economy, which can provide political stability, protection of private property rights and enforcement of the rule of law.

De novo enterprises sector plays a vital role in the transition process and is one of the most efficient tools of meeting the above-mentioned objectives. The reason for making statement like this is the availability of empirical evidence supporting this point of view. For example, Bilsen and Konings (1998) in their firm-level survey of 431 enterprises in Romania, Bulgaria and Hungary found that the *de novo* firms were the most dynamic in terms of job creation and job destruction comparing with privatized and state-owned enterprises. This means *de novo* enterprises provided the deepest restructuring, where unproductive jobs were destroyed and replaced by more productive ones, leading to so-called creative destruction. Moreover, study of OECD and European emerging markets done by Scarpetta (2005) showed that de novo enterprises played an important role in restructuring of the national economies resulting in expansion of the sectors, which were underrepresented under communist regimes (usually trade and services) – job creation, and

contraction of overdeveloped sectors (usually industrial sectors) - job destruction. Furthermore, in the study it was found that new firms were more productive than the incumbents adopting new and more efficient technologies, counting for more than 40% of productivity growth in certain countries (Latvia and Estonia).

The creative destruction process not only allowed redeploying resources from obsolete to more productive firms, but also pushes incumbent firms towards efficiency-enhancing investment. A strong link between firm turnover (entry and exit rates) and the productivity growth of incumbent firms across countries and industries was identified.

Another supporting argument is that according to Jackson, Klich, and Poznanska (2003), who studied last Polish elections, the *de novo* firms, the individuals they employed, and the residents in the local areas where they existed became an important constituency supporting pro-reform parties and constraining the actions of the parties less sympathetic to the reforms. The political events and parties' platforms leading to and following 2001 election support this proposition. We can say that *de novo* enterprises sector, its expansion, helped to undermine and reduce the political constraints, which could become an obstacle on the way of the transition process.

These examples indicate that *de novo* enterprises are powerful "engines", that can move economic reforms and their implementation further to the next stage.

Obviously, the effect of the creative destruction depends on the business environment existing in the country. Lack of access to credit, corruption or weak infrastructure may prevent the ability of firms to expand once they have entered. Moreover, providing special treatments to well-established businesses may defend them from competitive pressure, creating significant entry barriers for new firms and weakening incumbents' incentives to invest efficiently. Therefore, we may say that business environment and government's policy to change it have significant effect on *de novo* enterprises. Moreover, there is already empirical evidence, confirming that policies of the governments affect the economic growth and development in the countries (Radulescu, Barlow, 2002; Havrylyshyn, van Rooden, 2000).

Therefore, we may conclude that de novo enterprises play very important role in transition process, but their performance is subject to the government's policy.

The paper reports new and unique firm level survey evidence to investigate the micro economic nature of the growth process and structural change in CIS countries based on *literature review and proposed calculation methodology.*

Results

As we could see above there is vast research done on the topic, but very limited work is done about the countries - members of the Commonwealth of Independent States. This work is an attempt to close that gap, to investigate the role of de novo enterprises in restructuring process, and to identify the effect of government policy on the work of this sector.

For example, Uzbekistan has achieved sustained growth through its gradual transition to a market-based economy. This involved cautious economic policy reforms such as liberalizing prices of energy and fuel while maintaining a high level of state control. Despite the gradual approach to development challenges following its independence, the country experienced in the 1990s the smallest output decline among former Soviet economies and enjoyed high rates of economic growth from 2004 to 2015, largely driven by the high prices of its major export commodities. The pace of reform is unprecedented, and the government has formulated its long-term economic strategy in its Vision 2030, which aims to double the country's gross domestic product by 2030 through a program of economic diversification.

Employment creation can be stimulated by additional government action in three areas. The first priority area is to improve firms' access to finance by focusing on small and medium-sized enterprise development and financial sector modernization. To do this, the government should develop the nonbank finance industry and market-based instruments, establish a high-quality

financial structure to modernize the banking sector, and strengthen the use of digital finance solutions to promote financial inclusion. The second priority area of future reforms is to enhance market competition through greater participation in regional and global trade and improve the business climate to attract more foreign direct investment inflows and facilitate job creation. The third priority for government action relates to addressing the longer-term constraints associated with the economy's infrastructure stock and level of human capital. A comprehensive infrastructure program focusing on transport and energy would facilitate the country's access to global markets while concomitantly supporting output and employment growth. Finally, education and skills improvements aimed at fully responding to job market needs are required to meet the challenges of a modern diversified economy.

Research methodology. So, what do we need for the research – to find solutions: at first - *to identify whether job creation and job destruction processes in enterprises lead to restructuring from planned to market economy in CIS countries*; and *critically analyze direction and magnitude of the effect of the public economic policy on the sector of the de novo enterprises in CIS countries.* According to the research aims, we define the research objectives as follows:

1. To measure the degree of restructuring in the national economies through the analysis of the features of job creation and job destruction processes in CIS countries;
2. To analyze the dynamics of the development of *de novo* enterprises sector over time in CIS countries;
3. To determine the set of variables in public policy, and to analyze their effect on the sector of the *de novo* enterprises and its development dynamics over time;
4. Basing on the research results, to undertake assessment of the effectiveness of the CIS countries' policies on restructuring of their national economies and to provide sound and concrete recommendations on improvement of the effectiveness of public policymaking in this area.

In the old system, certain sectors, particularly service and trade, were underdeveloped, while manufacturing sectors were overdeveloped. Therefore, the first outcome of restructuring was a reallocation of jobs and other resources from manufacturing to newly emerging sectors. Mainly newly established private firms, so-called de novo enterprises, represent newly emerging sectors. Therefore, de novo enterprises are expected to outperform other firms, namely state-owned and privatized firms, in terms of job creation. In other words, number of new job places created in de novo enterprises will be much higher than in state-owned and privatized firms. As to job destruction, converse situation is expected. Basing on the work of Bilsen and Konings (1998), **our hypothesis states that if de novo enterprises outperform state owned and privatized enterprises in terms of job creation this can be considered as the sign of restructuring.** In addition, we expect that over time the difference between job creation and job destruction of de novo and other ownership types of enterprises should diminish, reflecting the progress in restructuring. We think the track of job creation and job destruction in various types of enterprises over time should allow us to define whether job creation and job destruction result in restructuring and to measure the degree of the restructuring undertaken in the national economy.

Moreover, degree of restructuring can be measured through determination of the share of between-sector job flows in overall level of job flows. According to Bilsen and Konings (1998), at early stages of restructuring job, flows are to be observed predominantly from manufacturing (overdeveloped) sectors to trade and service (underdeveloped) sectors. Therefore, major share of job flows is between sectors. Hence, **our second hypothesis states that if we measure the share of between sector job flow and its change over time, we will be able to make conclusions on the degree and progress of restructuring process within the national economy.**

Moreover, as we said before we expect that government's policy will have an effect on the performance of *de novo* enterprises. We suggest that the following features will reflect the national economic policy:

- Fiscal and monetary policy;
- Protection of private property rights;
- Enforcement of the rule of law;
- Degree of corruption;
- Taxation;
- Access to capital markets;
- Price liberalization;
- Trade and foreign exchange regime;
- Competition policy;
- Foreign direct investment.

Methodology for data. In our work, we intend to use firm-level national datasets covering all enterprises being registered within CIS countries. This type of datasets can be obtained through national bodies of statistics, which exist in all country-members. We expect to obtain national-specific dataset for each country. The structure of the requested dataset is as follows:

Firm title	Year of establishment	Year of exit *(if relevant)*	Number of employees				Type of ownership			Sector	Country
			2001	2002	..	2004	2001	…	2006		

Firms will be divided into three ownership categories, de novo firms, state-owned firms and privatized firms. The de novo firms are those that have been private since they were established. This category of firms does not contain spin-offs from previously SOEs. This will be controlled using the information on change of the ownership type within the researched period of 1991-2006. The category of state-owned enterprises includes 100% state owned unincorporated and joint stock companies, and majority state owned companies. Privatized firms are those, which were privatized from the SOEs, which started operating before transition. In addition, this category includes minority state - owned companies.

We expect to estimate the policy variables through the set of indices given in the table below:

Fiscal policy	Budget surplus
Monetary policy	Inflation rate
Protection of private property rights	Sub-index Heritage Foundation
Enforcement of the rule of law	Sub-index Freedom House
Degree of corruption	Transparency International
Taxation	Sub-index Heritage Foundation
Access to capital markets	EBRD index
Price liberalization	EBRD index
Trade and foreign exchange regime	EBRD index
Competition policy	EBRD index
Foreign direct investment	National Statistics Bodies

We aim to obtain data for the period 1992-2006, for all country-members of CIS. This will allow us to construct a panel dataset for 13 years and 12 countries, leading to 156 observations.

Measures of job creation and job destruction. Below we would like to introduce the rates, through which we expect to measure job flows in CIS countries.

Following the methodology developed by Davis and Haltiwanger (1992) we calculate the size of firm i at time t, denoted x_{it} as the simple average of firm employment at time t and $t-1$. Category

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size is defined analogously. We define t time growth rate of firm i employment, denoted by g_{it}, as the change from the firm's employment from $t\text{-}1$ to t, divided by $x_{it\text{-}1}$. Using these measures we will calculate gross job creation (JC_{st}) and job destruction (JD_{st}) rates in category s at time t as

$$JC_{st} = \sum_{\substack{i \in I_{st} \\ g_{it} > 0}} \left(\frac{x_{it}}{X_{st}}\right) g_{it} \qquad\qquad JD_{st} = \sum_{\substack{i \in I_{st} \\ g_{it} < 0}} \left(\frac{x_{it}}{X_{st}}\right) |g_{it}|$$

I_{st} is the set of firms in the category s at time t.

Therefore, we may say that JC_{st} is the sum of all job gains in expanding and entering firms within a year expressed as a fraction of average employment over 2 years in the category. Similarly, JD_{st} is the sum of all job losses in contracting and closing firms relative to the average employment over 2 years in the category.

Summing JC_{st} and JD_{st} we obtain gross job reallocation rate for category s and time t.

$$JR_{st} = JC_{st} + JD_{st}$$

The difference between gross job creation and gross job destruction referred as net employment growth rate for category s at time t (NET_{st}).

$$NET_{st} = JC_{st} - JD_{st}$$

All four rates can be calculated for various categories of ownership types, regional location, firm size, etc.

In order to measure of degree and progress in restructuring we calculate gross job creation, destruction, reallocation and net employment growth rates for ownership categories. We expect to construct a table for three different types of ownership for the period 1992-2006.

Comparison of the difference between the rates and their change over time will allow us to make conclusions on the degree and progress in restructuring process within national economies of CIS countries.

Moreover, we would like to calculate so-called intra-industry job reallocation (IIJ_t).

For these purposes, we will first calculate industry sector specific gross job creation, destruction, reallocation and net employment growth rates.

Intra-industry job reallocation rate is calculated through the following formula:

$$IIJ_t = 1 - \frac{\sum_s |NET_{st}|}{\sum_s JR_{st}}$$

Please note, that in the case of intra industry job reallocation rate s stands for industry sector.

If this index is equal to zero, job reallocation occurs entirely between sectors; if it equals to one, job reallocation occurs entirely within sectors.

Basing on the results of the calculations, we will construct a table reflecting change in the value of the industry job reallocation rate over time.

This will also allow us to make conclusions on degree and progress of restructuring in each separate CIS country.

The next step is to identify the effect of public policies on the work of de novo enterprises. For these purposes, we would like to run a regression based on panel data for the model presented below:

$$NET_{it} = \alpha_1 + \alpha_2 D_2 + \alpha_3 D_3 + \ldots + \alpha_{11} D_{11} + \beta_1 X_{1t} \ldots + \beta_{11} X_{11t} + U_{it}$$

In the model $\boldsymbol{D}$s stand for dummy variable of countries, and $\boldsymbol{X}$s for policy variable indices.

The reason for choosing Least squares dummy variable regression model is that we think it is reasonable to assume that slopes won't change across countries and over time, as we expect the same type of effect of policy variable on de novo enterprises, and there were no major shock

changing the nature of the relationship. At the same time, we assume that intercept may vary across countries capturing country-specific effects.

Conclusions

The results of the work will allow to measure and track the progress in restructuring in CIS countries. This means that we will have a direct tool for the assessment of the efficiency of CIS national governments economic policy on restructuring the national economy comparing with each other.

Moreover, the outcomes of the research will enable us to see effect of the public policy variables on the sector of the *de novo* firms. This will increase awareness of policymakers about the problem areas needed to be solved, which will help to further development of the *de novo* sector in CIS countries. We expect to find a number of problem areas as no any similar research has been done on this area for CIS countries. Absence of prior research also gives us ground to expect that policy recommendations and advices will be unique.

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