Impacts of the global economic crisis on the European labor market performance: the case of Visegrad Group countries

MICHAL TVRDON
Department of Economics
Silesian University, School of Business Administration
Univerzitni nam. 1934/3, Karvina 733 40
CZECH REPUBLIC
tvrdon@opf.slu.cz http://www.opf.slu.cz

Abstract: The paper is an empirical analysis of unemployment patterns in the Visegrad group countries from 2000 to 2010. The Beveridge curve is used as the main description of labor market performance in the paper. Beveridge curve implicitly depicts a negative relationship between the rate of unfilled job vacancies and the unemployment rate and so it can properly link related creation of new job vacancies and the unemployed. In recent years, labor markets were affected by the financial and consequently economic crisis that resulted in an increase in unemployment in the most EU Member States. Quarterly Eurostat and OECD data were used for the analysis of labor market performance. It is clear from the analysis that the economic crisis had the greatest impact on labor markets in the Baltic countries. It was also found that the crisis hit more men and low-skilled labor force with pre- and primary education. Another finding is that shifts of individual Beveridge curves correspond to shifts of the theoretical Beveridge curve.

Key-Words: Labor market, Unemployment, Long-term unemployment, Economic crisis, European Union, Visegrad group

1 Introduction
Deregulation and globalisation of financial markets helped create conditions that led to the global financial crisis. According to [6] the severity of the global financial crisis and the global economic recession that accompanied it demonstrate the utter bankruptcy of the deregulated global neoliberal financial system. As the crisis unfolded in the U.S., a number of countries’ real economies suffered from a decreased U.S. consumer demand, and credit problems arising from the U.S. mortgage sector rapidly have permeated across nations, ensnaring financial institutions worldwide [8]. This crisis is seen as a synchronized one and is often compared with the Great Depression. The financial crisis has spread to a wider range of institutions and markets, including emerging economies, which until quite recently seemed to have been relatively unscathed, and there have been huge falls in global financial wealth [13]. Now the global economy is recovering from the deepest recession in the post-World War II era.

In this paper we analyze the transmission of the global financial crisis to business cycle in the Czech Republic and its consequences on a real economy. The Czech economy is characterized as a small open economy strongly dependent on foreign demand, especially German one. It generally displays a high degree of synchronization with other EU Member States. In the pre-crisis period, the Czech economy benefited from flourishing external demand shifting real GDP above its long-term potential. This dependence on foreign markets seems to be the main cause of macroeconomic vulnerability. According to [16] a limited internal market or high taxation burdens are other weaknesses of the Czech economy. On the other hand, high productivity and industrial competitiveness, high investment attractiveness and financial reliability, low government debt and low private debt or EU membership are the main strengths of the Czech economy.

The paper is structured as follows. The next section presents a literature survey on determinants of the global financial crisis. Section 3 describes impacts of the global crisis on the real economy and continues with an analysis of the labor market and the last section concludes.

2 Evolution of the financial economic crisis
The financial crisis began in August 2007, when subprime-related turmoil in other asset classes finally spilled over into the currency market. This initial phase of the crisis was manifested in a major carry trade sell-off. Then in November 2007, credit restrictions were associated with a major deleveraging in financial markets and many investment funds were forced to

The causes of overheating of the U.S. credit market and a consequent global housing bubble, which peaked in the U.S. in 2006, are [17]: (i) excessive risk taking by private entities; (ii) new complicated financial products (securities); (iii) poor regulation and lax supervision of financial markets; (iv) government support for ownership housing for low-income population; (v) excess liquidity and very low FED interest rates. All these factors combined with fall in prices on the real estate market have led to expansion into other segments of the financial sector and it was followed by nationalisations and takeovers of banks and insurance companies (Northern Rock, Fannie Mae and Freddie Mac, Merrill Lynch, Washington Mutual, Wachovia, and AIG). The financial crisis then spilled over into the real economy.

Consequences of the global economic crisis would be characterized as follows [17]: (i) sharp deterioration in the expectations of firms and households; (ii) increase of problems related to funding of business, production or investment; (iii) fall in production and foreign trade; (iv) firing employees; (v) reduction in consumption and investment.

The global recession was triggered by a severe financial crisis in key advanced economies that coincided with the freezing of global financial markets and the collapse in global trade flows. The intensification of the financial crisis in September 2008 caused an abrupt increase in uncertainty and led to a downward reassessment of wealth and income prospects. The crisis had four features in common with other crises: 1) asset price increases that turned out to be unsustainable; 2) credit booms that led to excessive debt burdens; 3) build-up of marginal loans and systemic risk; and 4) the failure of regulation and supervision to keep up with and get ahead of the crisis when it erupted [5]. Some authors have even compared the contemporary global recession with the Great Depression: Eichengreen – O’Rourke [7] found out that the decline in world industrial production in the first nine months was at least severe as in the nine months following the 1929 peak. Moreover, global stock markets and world trade were falling even faster now than in the Great Depression.

While the crisis quickly resulted in deep recessions in a number of advanced economies, the emerging market and developing economies were also seriously affected (see Figure 2) but the impact varied across regions and countries [4]. Economic development is determined both by domestic (e.g. aggregate demand shocks and budgetary policy) and international factors (external demand and international prices of traded goods). In open economies, the latter are playing an increasingly important role and often determine also domestic policies, which are aimed at insulating the economy from adverse external economic shocks [9]. According to World Bank’s Report [18] governments face the challenges to secure the recovery, bring about fiscal consolidation, raise productivity, and generate jobs.

### 3 Impacts of the global financial crisis on the V-4 labor markets

Economic transition in the Visegrád group countries ran into difficulties in the late 1990s with a banking crisis, currency problems and an economic recession. However, during the years 2004-2008, these economies grew steadily and rapidly, and its growth rate was more than twice higher compared with Eurozone’Member States. Significant growth was based on increasing exports and improving labor productivity. Large foreign direct investment (FDI) inflows fostered trade integration, underpinning an export-led expansion. All these factors created conditions for real convergence of the Visegrád economies or for so called the catch-up effect. Despite the good macroeconomic performance and the stable banking sector (excluding Hungary), the Czech and Slovak Republic have been impacted by spillover effects from the global crisis (mainly through decline in foreign demand). Heavy dependence on industry, which is most affected, caused that industry’ performance drop pulls down the whole economy. Global financial and economic crisis erupted in full force in 2008 and first signs of the coming economic crisis, we could see already later than in other western European countries, in the last quarter of 2008, where GDP growth over the same period last year, reached only 0.5%. Although the Visegrad group is not among the countries most affected by the crisis, it still faced with substantial year on year decline in real GDP in every quarter of 2009. The downturn was largely driven by a sharp contraction in investment, as companies scaled down their production capacities in view of low access to financing and uncertainty about future prospects. The contribution of investment to GDP growth declined. Private consumption held up better. It was supported by modest inflation, stable wages, and still largely robust labor markets. Large declines in domestic demand led to increasing net exports.

Labor markets in the European Union Member States were influenced by the global economic crisis in most cases, which arose as a result of the financial crisis. Figure 1 shows unemployment rates in the first quarter of 2010 in the EU Member States. The figure shows that the contemporary labor market performance reflects depth of the crisis. The average unemployment rate was close to ten percent, with some countries exceeded by up to ten percentage points (see figure). These countries
include the Baltic countries (Lithuania, Estonia and Latvia), and Spain or Slovakia. The Czech unemployment rate was situated in the bottom group of countries, and its value was 7.8%. Countries with the lowest unemployment rate were the Netherlands, Austria and Luxembourg, whose values were around five percent. We also added the United States unemployment rate in the figure. The purpose of this step was simple - the US unemployment rate was approximately half in the past in comparison with the EU-27 average. From development of the unemployment rate (since 2008), it is evident that the impact of the economic crisis on labor market performance was larger in the U.S., which resulted in the rate 9.6% in the first quarter of 2010, which is the highest in the last twenty years.

Fig. 1: Unemployment rates (2010Q1)

Source: Eurostat

But the unemployment rate can not express to what extent it was influenced by the economic crisis. As a typical example, we can use a case of a country which was fighting with high unemployment even before the crisis (e.g. Hungary). There could be a bias in this case. To avoid this bias, we created Figure 2, which shows a shift in unemployment rates between the first quarter of 2008 and 2010. The first quarter of 2008 was selected because the first signals of the economic crisis had appeared in the economies of Western Europe (labor market, however, was still in good shape), while the first quarter of 2010 showed first signals of future recovery.

For most countries, the evolution of the unemployment rate was similar during the observed period; a slight increase in the order in units of percentage points. The only country where the unemployment rate increased was Germany. However, it should be mentioned that it had a relatively high base rate. Among the countries that have experienced large increases in the unemployment rate were Estonia, Lithuania and Ireland (with the initial unemployment rate under five per cent). The countries with the highest unemployment rate in the first quarter of 2010 also included Spain and Latvia, with the increase 13.9 percentage points in the case of Latvia.

Fig. 2: Unemployment rates (2008Q1 and 2010Q1)

Source: Eurostat

In addition, Abraham and Shimer [1] mention that at the most of proceeded economic cycles it was proved rather strong correlation between the unemployment level and an average length of persistence of unemployment. Besides, there is an interesting fact that the persistence of unemployment did not decrease after the economic recession in such intensity as in the case of the decrease of the unemployment rate. OECD study even declares, that the long-term unemployment tends to grow for a year or two since the beginning of decreasing of the unemployment level and afterwards it starts to decline slowly. The fundamental question than is, which factors cause the delayed reaction of the long-term unemployment (in the sense of its decreasing) after subsiding of a shock. OECD study explains this through the dynamics of the labor market, which is a function of speed recovery of the market, degree of structural changes taking place in the economy. In addition it could be the setting of various government programmes assisting unemployed people and finally it is also the amount of previous short-term unemployed with the job.

The unemployment or its duration can have an influence even on the forming of macroeconomic equilibrium. The mechanism of possible impact of extending the duration of unemployment in the overall functioning of the economy is described by Pissarides [15] – let’s presume a negative shock that will have effects on employment in the sense that firms, by reason of wariness caused by uncertainty of the future development of the economy, will hire less labor force which will, among others, lengthen the persistence of unemployment. If the long-term unemployed lose their knowledge and skills and thus they become less attractive for their potential employers, the results of this phenomenon will be that there will be created fewer jobs and the labor market becomes “tight” for the reason of a lower human capital brought by the labor force as the whole. With the number of offered jobs, which is lower than usually, it also increases duration of unemployment.
of the new group of unemployed above a trend level. This is the reason why the labor market remains tight in the future and even if all the labor force, which had been in the previous period (before the shock) unemployed, would have attained a job. The tight labor market leads to a greater lack of work, which causes maintenance of the tightness of the labor market. Thus the effects of a negative shock persist and if the externality is strong enough, than the economy can “get stuck” on the lower macroeconomic equilibrium level.

Except the above mentioned correlation of the unemployment level and the persistence of the unemployment, according to [3], there also exists even a relationship between unemployment and jobs: “if there grows a share of a long-term unemployment in an aggregate unemployment and if the employees hesitate to hire long-term unemployed people (who are simultaneously less active during job search), than at a given level of unemployment the jobs stay void for a longer period.”

The Beveridge curve is a graphical representation of the relationship between unemployment and the job vacancy rate (the number of unfilled jobs expressed as a proportion of the labor force). It typically has vacancies on the vertical axis and unemployment on the horizontal; it slopes downwards as a higher rate of unemployment normally occurs with a lower rate of vacancies. If it moves outwards over time, then a given level of vacancies would be associated with higher and higher levels of unemployment, which would imply decreasing efficiency in the labor market. Inefficient labor markets are due to mismatches between available jobs and the unemployed and an immobile labor force (for a more detailed analysis see [2] or [12]).

Fig. 3: Beveridge Curve – Czech Republic

Source: OECD

Development of the Czech labor market most closely matches theoretical construction of the Beveridge curve (see Figure 3). The initial quarter (1Q2000) was characterized by the high unemployment rate and low level of unfilled jobs. The figure shows that the Czech labor market has undergone two cycles during the observed period. The first cycle occurred between 2000 and 2004, the second one occurred from 2006 to 2010. Each cycle started by gradual improvement of the labor market performance. This trend was reflected by reducing unemployment and raising the number of unfilled jobs. In the next phase, after reaching the summit, unemployment started to grow and the number of unfilled jobs started to decline as the consequences of the economic crisis. The fundamental difference between these two cycles is based on dynamics of shifts. While in the first cycle, shifts of the Beveridge curve were minor, shifts were significant during the second cycle (see figure).

On the contrary, the Hungarian labor market can be described as rigid, though some shifts occurred during the observed period. In the first half (until 2004), both the unemployment rate and the rate of unfilled jobs stayed stable. Since 2004, however, the rate of unemployment has increased and the rate of unfilled jobs has decline. Unlike other V-4 countries the subsequent development of the labor market was affected by the problems with which the economy struggled. As shown in Figure 4, the unemployment rate has increased continuously since 2007, even labor market performance significantly improved in the other V-4 countries. This insufficient labor market development was influenced by bad economic situation in the country which was caused by unstable finances, large fiscal imbalances and high government debt. Given the size of fiscal imbalances, government had to raise state budget’s revenues, e.g. hikes in employee social contributions, value-added tax and business taxation. Yet, recent data shows the first signs of better labor market performance (stopping an increase in the unemployment rate and increasing the rate of unfilled jobs).

Fig. 4: Beveridge Curve – Hungary

Source: OECD

Polish labor market performance was worsening by increasing the unemployment rate to beyond 20%. It was
accompanied by the low rate of unfilled jobs in the first four years. It has started to improve since 2004 - the unemployment rate gradually declined to a historically low rate of 7% before the economic crisis. Like the rest of V-4 countries or other EU countries the unemployment rate started to increase again since the second half of 2008 (see Figure 5). Compared to such development in the Czech Republic, the overall shift of the Beveridge curve did not reach such a dynamic perspective. Although the Polish market is four times bigger than the Czech labor market it was not reflected by a higher number of unfilled jobs. Therefore, the rate of unfilled vacancies exceeded 0.5% during the observed period, whereas the Czech labor market vacancy rate reached up to 3%.

![Fig. 5: Beveridge Curve – Poland](image)

Source: OECD

The vacancy rate data from OECD database were inaccessible in the case of Slovakia. So we used Eurostat data but the database starts with first data at the first quarter of 2008. However, Figure 6 shows that the Slovak labor market was influenced by the economic recession. Unlike the Czech Republic the economic recession showed a decline vacancy rate first. Afterward the unemployment rate increased and this increase was among the EU countries with the highest shift.

4 Conclusion

We have to keep in mind two important factors in the case of conclusions regarding the analysis of the Beveridge curve shifts: (i) shift to the right and down is considered negative (rising unemployment and declining number of unfilled jobs); (ii) we must take into account the scale of the axes, respectively, a range of values of the axes. For most Visegrád group countries, a relationship can be seen between shifts of the Beveridge curve and the business cycle. First, the Beveridge curve shifted toward the left and upward (number of unfilled jobs was increasing while the unemployment rate was decreasing) in the period 2006-2008. Since the second half of 2008, the whole economy of the European Union was hit by the economic crisis. The Beveridge curve shifted toward the right (vacancy rate declined and the unemployment rate rose). The next period, albeit with less intensity, which also confirms dependence of the Beveridge curve shifts on the business cycle is the period 2000-2004. The exception is Hungary - its Beveridge curve shifted to the right for the most of the observed period. This development was mainly due to internal economic problems of this country.

Acknowledgement

The research behind this paper was supported by the Czech Science Foundation within the project GACR 402/09/P142 “Institutional labour market framework in the context of economic convergence and adopting single currency (application on Visegrád group)”.

References:


