

SPECIFICATION OF RECENT FINANCIAL CRISIS IN THE CZECH REPUBLIC DURING 2008-2016 IN COMPARISON WITH PREVIOUS FINANCIAL CRISES, IN PARTICULAR DURING 1990s

Klára Čermáková – Emilie Jašová

Abstract

This paper is focused on some specific features of recent financial crisis in the Czech Republic. The crisis during 2008-2014 is compared with selected past financial crises, in particular those happening during 1990s. Among issues discussed are roots of financial crises, global imbalances and instruments and provisions aimed to prevent or weaken future crises. The paper shows how changes in global economy may generate financial crises and also change continuously their features and attributes. This study is focused on the Czech economy where the empirical data show a significant delay in the beginning of the recent financial crisis. We find that indicators differing the Czech economy from other Central European economies concerned the real estate market and construction market. The Czech real estate market was not hit by the burst in the first moment and the construction sector index kept growing during all 2009. On the other hand, the Czech economy suffered a double bottom crisis, which struggled the country for almost seven years.

Key words: unemployment rate, NAIRU, unemployment gap, HP filter, minimum wage

JEL Code: E24, E32, E37

Introduction

Minsky (1991) states that capitalism has created instability and unanticipated crises. Deregulation of the financial sector and breakdown of the global monetary and economic cooperation as per the Bretton Woods agreements has led to more pronounced and rapidly developing crises. The crises of 1990s claimed for financial and economic regulation and showed economies with an important share of production based on financial activities as less stable than economies based mainly on real production.

Caballero and Kurlat (2009) recommend that the government issue tradable insurance credits, which would entitle institutional holders to central bank guarantees during a systematic crisis. Less seriously considered is the idea of creating a World Financial Authority (WFA), suggested by Eatwell and Taylor (2000), who propose an international institution that would

control financial externalities, such as potential losses, that impact societies but are not paid for by markets. The WFA would regulate systemic risk and coordinate national action against market abuses and international financial crime.

Although the main argument against such an institution is that nations would oppose such an authority as an infringement upon their sovereignty, Eatwell and Taylor make the case that similar international institutions have been created in the past. Rather than think of a WFA as a new type of entity, Eatwell and Taylor view the WFA as an extension of the Basle Committee on Banking Supervision (based at the Bank for International Settlements in Basle), which sets regulatory standards for financial institutions; the International Organization of Securities Commissions, which creates regulatory standards on cross-border securities transactions; and the International Association of Insurance Supervisors, which sets standards on insurance transactions. In addition, the Financial Stability Forum, now the Financial Stability Board, was organized to promote financial stability by addressing current issues.

Eatwell and Taylor define the social spread as the difference between costs associated with social risk, and those associated with private risk. One task for global financial regulation is to build the social spread into the investors' calculations where possible, and where not possible, to limit excessively risky financial activities. Risk control would be accomplished at both the macro and the micro level. The IMF, not the WFA, would remain the lender of last resort. Generally, creating a WFA is seen as an unlikely event, and without change among national leaders, there is little evidence to support the notion that the WFA would not face the same ideological and practical problems facing the IMF today.

Bordo and James (2010) argue that three issues dominate the debate about the IMF: the design of the Exchange rate regime, in which some Asian economies have been accused of maintaining an artificially low Exchange rate; the question of reserve management, where there is concern over a build-up of large surplus reserves; and the management of financial globalization, particularly on financial instability.

Minsky viewed the process of expansion as creating increasingly greater potential for a debt-deflation process to occur. Although we do not necessarily agree with this assessment (financialization beyond lending money has created value in assets), his overall framework that pinpoints excessive speculation as dangerous still holds today. Righi and Ceretta (2013) find that European markets are weakly efficient but that tail risk is present.

The aim of this article is specification of recent financial crisis in the Czech Republic during 2010-2014 in comparison with previous financial crises, in particular during 1990s.

Financial Crises from early 1990s to the present

According to Hsu (2017) there were four main crisis periods between 1990 and 2008 in the world economy.

1.1 Early 1990s: advanced countries crises

Nordic crisis was not inevitable, since proper mechanisms for reducing market risk were not put in place before liberalization. However, the crises did not have deep roots in the economies, and the policy response was swift. The currency crises were associated with the Exchange Rate Mechanism (ERM) crisis and were not, by contrast to the Asian financial crisis at the end of the decade, caused by sudden capital outflows.

Honkapohja (2014) writes that in response to the Nordic crises, the Nordic countries introduced crisis resolution agencies to manage the crises. Private solutions, such as mergers and takeovers of banks, were attempted before public takeovers. The government injected funds and engaged in takeovers as needed. And Stefan Ingves (2002) noted:

„ it must be strongly stressed that the Nordic countries are unusually orderly at the micro level. Hence they represented an almost ideal environment for crisis management and bank resolution. This was case even in the absence of a systemic resolution Framework or a clear regulatory framework for dealing with problematic banks – a lot was improvised, but it was done very well because the microeconomic structures were in place (it was relatively easy for the public sector to take over and recapitalize a bank, lend or guarantee funds to a private bank, set up limited liability companies for dealing with problem assets, etc. – transactions that have been extraordinarily difficult in many other countries).“

The resolution was both speedy and transparent, and losses to creditors were minimized. Prudential regulations were put in place to prevent further loan losses.

The Japanese crisis and its lack of a robust recovery has puzzled many economists. Although Japan is a developed country in terms of both standard of living and innovation, true economic vibrance has failed to return, as it usually does after the crisis fades away. This may be one of the most important quarrels in the modern history of financial crisis: why has the economy failed to rebound to its pre-crisis rate of growth? Some argue that it is due to aging population, or because Japan will be shortly reaching the end of its development curve or because of

increased concentration in the services sector. Still, it is not clear why this is so, or what implications this might have for the future of other developed countries.

The crises of early 1990s shocked those involved, but were mild in comparison to what was to come. At the time, it seemed that policy was more or less successful in containing the ERM crisis and the Nordic crisis. The impacts of an external shock (German reunification in the case of the ERM crisis) and financial deregulation (in the case of the Nordic crisis) were severe but swiftly and effectively dealt with. The Japanese crisis, on the other hand, did not elicit an immediate response and dragged on for some time. But it would not prove as devastating in impact and virulence as the crises to come.

However, there were losses. The final cost to taxpayers in the United Kingdom was estimated at £3,4 billion, due to devaluation of the pound sterling on Black Wednesday (Eichengreen 2000). In 2002, deposit insurance was scaled back to an upper limit of 10 million yen to reduce moral hazard and public responsibility for bank failures (Sato 2003).

1.2 Mid-1990s: Mexican crisis and Asian financial crisis

At the time, the Asian financial crisis was arguably the worst since the Great Depression, affecting much of Asia. It rapidly spread to other countries and threw the population into hardship, albeit in short run. The Asian crisis showed that crisis could spread like wildfire if not contained, and at the same time, that containing it through austere fiscal measures was not the best answer. After the Asian financial crisis, much worse was to come. Immediately following the crisis, other countries caught the Asian flu and faced rapidly deteriorating circumstances. These included Russia, Brazil, and Argentina.

These countries were certainly operating within different political and economic paradigms. Malaysian Prime Minister blamed the crisis on rich Western countries, and sought to ban currency trading. He made wild accusations toward others for engineering the crisis, isolating George Soros as a major culprit. Soros later responded that he was a menace to his own country (Ries 2000). But despite the invective, he was a strong political figure who promoted anti-recessionary policies and immediately imposed barriers to capital outflow (Desai 2003). Like Krugman (1999) and Mishkin (1999) emphasized the impact of the crisis on firms' balance sheets. By contrast, Mishkin emphasizes the role that banks' risky behavior played in causing the crisis. Additional forces put pressure on exports, such as competition from China, Vietnam, and Mexico, and the decline in world semiconductor prices (Berg 1999).

1.3 Late 1990s and early 2000s: Russian financial crisis, Brazilian financial crisis, Argentine crisis

This part examines the Russian, the Barazilian, and the Argentine crises in succession. All three crises were debt crises and curency crises, although the underlying causes and policy responses were different. In Russia, the immediate trigger for the crisis was a sudden outflow of capital while in Argentina the crisis build more slowly as policy makers attempted to stave it off by controlling capital flows, even though in both of these countries serious problems had been created long beforehand by serious fiscal shortcomings, particularly the inability to collect taxes. Brazil´s crisis was created, in the short run, as a result of spekulative attacks on the real. Attempts to fend off capital flight were overly simplistic and consisted of raising interest rates, which became decreasingly successful. Brazil´s long term problem was less serious than that of Russia or Argentina, and was due to overborrowing during the privatization proces.

In all three cases, capital flight put pressure sooner or later on the Exchange rates, and the IMF was forced to intervene to shore up capital and promote confidence. This did not always work, and grudging acceptance, at best, of IMF austerity conditions led to incereased criticism of the IMF bailout and austerity policies. These criticisms would be echoed once again during the Great Recession of 2008, which was the largest crisis since the Great Depression.

1.4 Late 2000s: the Great Recession of 2008

The Great Depression and many intervening crises taught us much about how policy should respond in the Great Recession, but again we face new challenges. The US component of the financial crisis clearly warranted more attention than was given to the Great Depression in the short run. Governments around the world should be lauded for implementing fiscal stimulus packages and loose monetary policy to halt the crisis in its tracks. The eurozone component of the crisis is less clear, especially since the downturn worsens countries´ debt positions, which in turn worsen the downturn, and the structural problem within the eurozone has yet to be addressed. The crisis has been so severe around the globe that it will take some time for economic conditions to improve.

Bordo and Landon-Lane (2010) make the case that the Great Contraction is only fourth in ranking of severity compared to crises occurring in 1880, 1890-91, 1907-08, 1913-14, 1931-32, 2017-08. We find this result questionable, particularly because the authors include only countries that have consistent data in all of these periods (that is, other countries that were affected, in particular Easten European and Asian countries, are not included in the analysis).

The Public-Private Investment Program (dubbed the Legacy Loans program), proposed in March 2009, which revived the original the Troubled Assets Rejief Program (TARP) plan in the sense of providing government backing for purchase of tropubled assets, was, like its predecessor, so unpopular that it was canceled. This program proposed to guarantee private

investment in troubled assets through the Treasury. Banks found the program so appealing that they requested to purchase these toxic loans from their own books (Enrich et al. 2009). This would have expanded the role of the government to become the „market of last resort (Buiter 2007). About 160 billion US dollar were linked directly to asset-backed securities.

Brunnermeier et al. (2009) recommend setting up countercyclical measures on a country-by-country basis, since business cycles vary by nation. Rodrik (2009) also makes the case that national regulation should be emphasized, with a thin layer of supranational regulation, since rules of sovereignty are not easily superceded, and when they are, a supranational regulator may create inadequate policies.

Some economists continue to vilify government intervention even after the crisis (Galbraith 2014). Even former Federal Reserve Chairman Alan Greenspan stated that post-crisis government intervention hobbled market.

2 Description of sources of data and method of analysis cyclical development in the Czech Republic

In the conditions of the Czech Republic, we will assess the cyclical development in the economy by the prism of the unemployment rate, which does not accelerate or decelerate inflation (Non-Accelerating Inflation Rate of Unemployment – „NAIRU“). NAIRU shows the long-term potential of the labor market. It is a trend measure to which we measure the real rate of unemployment. We find out how the impact of the phenomenon under investigation is reflected in the actual unemployment rate, and thus influences the trending magnitude. Tobin's approach (1997) was chosen as the most appropriate NAIRU concept.

For this purpose, we first estimate the development of NAIRU across the national economy over the period 1990 - 2016. The data source was the Research Institute of Labor and Social Affairs, which was last updated in January 2018 (http://www.vupsv.cz/index.php?p=economic_social_indicators&site=en). The Hodrick-Prescott filter method (HP filter) was used to estimate the NAIRU from the specific unemployment rate. Since the data with annual periodicity was selected, the λ coefficient is determined to the level of the normally applied value of 100. The time series of the actual unemployment rate was tested by the Augmented Dickey-Fuller ADF. The zero root hypothesis was rejected.

The evolution of the business cycle is determined by deducting NAIRU estimates from the actual unemployment rate. In his analysis, attention is paid to locating the period of instability with structural shifts, the cause of which is the transformation of the economy and

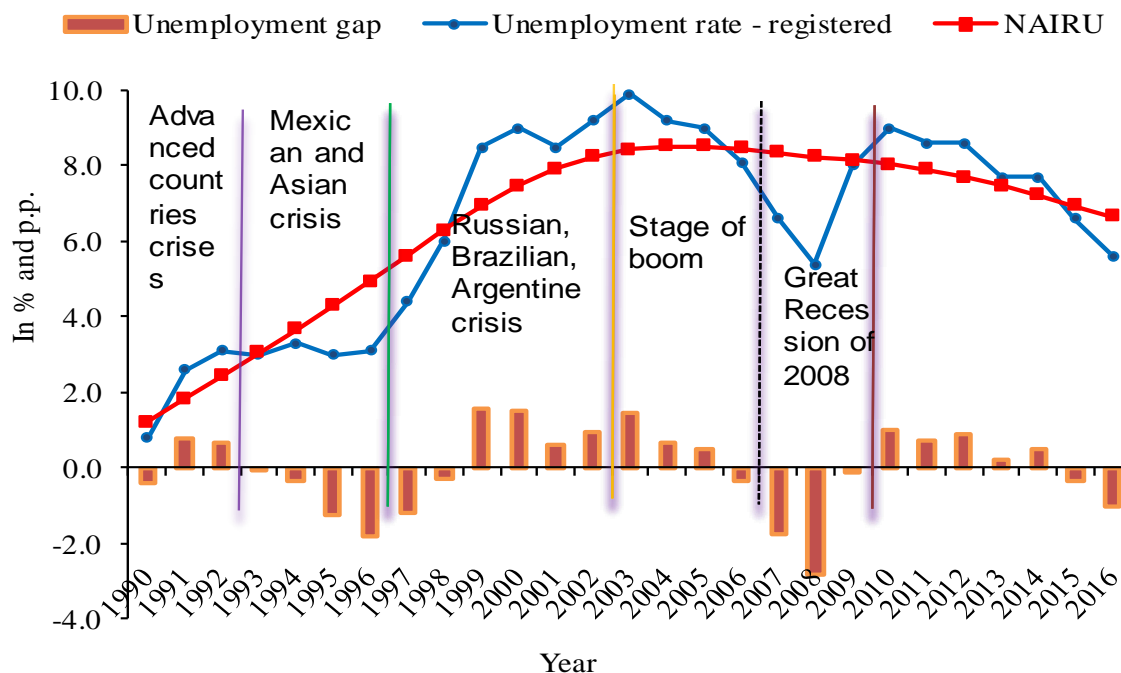
the global financial and economic recession. Periods of instability with movements / intermittent changes between decades and semi-decades are due to fluctuations in unemployment and other indicators of the real economy (eg impact of the current rise in unemployment and household consumption deflator see Bianchi and Zoega, 1998). The process of the localized economic cycle in the labor market in the Czech Republic is then compared with the localized phases in the work of Hsu (2017). Later, we will try to explain the differences between the development of the cycle in the Czech Republic and in the world economies by other indicators of the real economy (eg the price index of construction works, consumer price index, registered unemployment rate, GDP, foreign direct investment, state budget, number of paid old-age pensions, employment policy, sickness and maternity benefits and minimum wage).

3 Overview of results about specifics of recent financial crisis in the Czech Republic during 2010-2014 in comparison with previous financial crises, in particular during 1990s.

By comparing our estimated NAIRUs evolution with the published unemployment rate, we estimated 4 labor market cycles and 3 recession periods (Chart 1) between 1990 and 2016 on the Czech labor market.

Chart 1

Estimation of economic cycle development in the Czech Republic and comparison with localized financial crises, crises and recession in the world economy (% unemployment gap in p.p.)



Source: Own calculation based on RILSA data from January 2018.

The first boom occurred in 1990. The positive gap (0.42 p.p.) and the transition to the recession phase in the following year suggest that at least the last part of the 1980s was characterized by a boom. The Czech Republic avoided the period of debt defaults and the crisis of savings and loans, which hit the emerging markets in the 1980s. The index of construction output, for example, was 5.8% (while the industrial production index was -3.5%). The registered unemployment rate was only 0.8%. Also, relatively low consumer price growth was found by 9.7% at the time (eg in 1991 it was 56.6%).

The second boom took place between 1993 and 1998. This phase is rather shallow (the average gap was 0.84 p.p.). This positive period in the Czech Republic is in contradiction with the global developments that influenced the Mexican financial crisis and the Asian crisis between 1993 and 1996. The period 1997 to 1998 is characterized by the impacts of the Russian and Brazilian financial crisis and the Argentine crisis. In the case of the Czech Republic, this may have been a result of positive GDP growth (annual growth by 1.3%), while the industrial production index was even 2.4%. Foreign direct investment grew by 154.6% yoy. There was also a moderate deficit of the state budget (0.2% of GDP), expenditure on employment policy increased by 11.5% year on year, pensions paid by 0.5% and sickness and maternity benefits by 11.4%.

The third boom took place between 2006 and 2009 (the positive gap was 1.27 p.p.). While the year 2006 coincided with the positive development of the world economy, over the next three years, the Czech Republic managed to withstand the impact of the Great recession of 2008. GDP grew by 1.2% year-on-year, while the construction work index was even 2.1%. Foreign direct investment grew by 99.2% compared to the same period last year, the share of registered job seekers receiving unemployment benefits increased by 4.1 p.p., the number of old-age pensions was 2.0% and the employment policy expenditure by 18.8%.

The fourth boom covered the last two years of the monitored interval (2015 and 2016) and was shallow in nature (0.70 p.p.). GDP in these two years grew by 4.0%, foreign direct investment by 204.3%, job vacancies by 63.6% and a minimum wage by 7.9%.

The first recession was localized in the Czech Republic in 1991 and 1992, the unemployment gap was only 0.72 p.p. The inferred negative phase confirms that the crisis in the developed countries entered the Czech economy later (by 1 year), thus having a shorter duration (by 1 year). In 1990, the Czech economy supported mainly the development of the construction output index, which was 5.8%.

Two years later the Czech Republic also hit the Russian, Brazilian financial crisis and the Argentine crisis (until 1999). However, this world phenomenon eventually narrowed the economy of the Czech Republic to 2005, which was three years longer than in the countries of origin. The unemployment gap in this second phase of the recession was 1.03 p.p. In these three years, the registered unemployment rate was 9.4%, the share of registered job seekers receiving unemployment benefits declined by 3.1 p.p. year on year and the number of old-age pensions increased by only 1.1%.

Three years later, the Czech Republic was hit by the Great Recession of 2008. This phenomenon occurred in the Czech Republic between 2010 and 2014, while in the rest of Europe it lasted for about three years. The unemployment gap averaged 0.65 p.p. This was due to the development of the construction output index (- 4.2%), the share of registered job seekers receiving unemployment benefits dropped by 4.0 p.p., employment policy and sickness and maternity benefits decreased by 2.9% .

Conclusion

The aim of this study was to identify and compare macroeconomic indicators of recession stages in the Czech Republic with the analyses performed by Hsu (2017) on world economy data. We have identified the following differences and possible explanations.

First of all, the recent crisis in developed economies spilled over the Czech economy with approximately one year delay. For example construction sector index (growing by 5,8% in 2009) shows this fact. Data on unemployment and construction sector index show that in the EU countries, however, the recession was significantly shorter.

Next, Russian, Brazil and Argentina financial crises hit the Czech economy also with a delay, (data show approx. 2 years delay), but the course of the crises took longer, it is estimated that recessions lasted 3 years more than in countries of origin. This is proven by data on rate of unemployment was 9,4%, unusually high level for the Czech economy.

References

- Berg, Andrew. 1999. The Asia Crisis: Causes, Policy Responses, and Outcomes. IMF Working Paper 99/138.
- Bianchi, M.; Zoega, G. 1998. Unemployment Persistence: Does the Size of the Shock Matter? *Journal of Applied Econometrics*, 13, 283-304.
- Bordo, Michael D. and John S. Landon-Lane. 2010. The Global Financial Crisis of 2007-08: Is It Unprecedented? NBER Working Paper 16589.
- Brunnermeier, Markus, Andrew Crockett, Charles Goodhart, Avinash D. Persaud, and Hyun Shin. 2009. The Fundamental Principles of Financial Regulation. Geneva Reports on the World economy – Preliminary Conference Draft.
- Buiter, Willem H. 2007. The Central Bank as Market Maker of Last resort. *Maverecon.com*. August 12.
- Caballero, Richardo J. and Pablo Kurlat. 2009. The „Surprising“ Origin and Nature of Financial Crises: A Macroeconomic Policy Proposal. MIT Department of Economics Working Paper No. 09-24.
- Da Costa, G. C. 1991. External Debt of Developing Countries: Crisis of Growth. *Economic and Political Weekly* 26(8): 433-438.
- Desai, padma. 2003. Financial Crisis, Contagion, and Containment: From asia to Argentina. Princeton, NJ: Princeton University Press.
- Dobbin, Frank R. 1993. The Social Construction of the Great Depression: Industrial Policy during the 1930s in the United States, Britain and France. *Theory and Society* 22(1):1-56.
- Eatwell, John and Lance Taylor. 2000. *Global Finance at Risk: The Case for International Regulation*. New York: new press.
- Eichengreen, Barry. 2000. The EMS Crisis in Retrospect. NBER Working Paper 8035.

- Eichengreen, Barry and Andrew Rose. 1998. *Staying Afloat When the Wind Shifts: External Factors and Emerging-Market Banking Crises*. NBER Working Paper No. 6370.
- Enrich, David, Liz Rappoport, and Jenny Strasburg. 2009. *Banks Aiming to Play Both Sides of Coin*. *Wall Street Journal*, March 27.
- Ford, Gerald. 1979. *A Time to Heal: The Autobiography of Gerald R. Ford*. New York: Harper Row.
- Friedman, Milton. 1992 (1976). *Prize Lecture: Inflation and Unemployment, Lecture to the Memory of Alfred Nobel, December 13, 1976*. In *Nobel Lectures, Economics 1969-1980*, ed. Assar Lindbeck. Singapore: World Scientific Publishing.
- Galbraith, James. 2014. *The End of Normal: The Great Crisis and the Future of Growth*. New York: Simon Schuster.
- Galbraith, John Keddeth. 1994. *A Journey through Economic Time*. New York: Houghton Mifflin.
- Hannsgen, Greg and Dimitri B. Papadimitriou. 2009. *Lessons from the New deal: Did the New Deal Prolong or Worsen the Great Depression?* Levy Institute Working Paper No. 481.
- Honkapohja, Seppo. 2014. *Financial crises: Lessons from the Nordic Experience*. *Journal of Financial Crises: Lessons from the Nordic Experience*. *Journal of Financial Stability* 13: 193-201.
- Hsu, Sara. 2017. *Financial Crises, 1929 to the present, second edition*. State University of New York at New Platz, USA. ISBN 978 1 78536 516 4 (cased), ISBN 978 1 78536 517 1 (eBook).
- Ingves, Stefan. 2002. *The Nordic Banking Crisis from an International perspective*. Speech for Seminar on Financial Crises, Kredittilsynet, The Banking, Insurance and Securities Commission of Norway, September 11.
- Keynes, John Maynard. 1936. *The General Theory of Employment, Interest and Money*. London: palgrave Macmillan.
- Krugman, Paul. 1999. *Balance Sheets, the Transfer Problem, and Financial Crises*. *International Tax and Public Finance* 6(4): 459-472.
- Minsky, Hyman. 1991. *Financial Crises: Systemic or Idiosyncratic*. Levy Institute Working Paper No. 51.
- Mishkin, Frederic S. 1999. *Lessons from the Asian Crisis*. *Journal of International Money and Finance* 18: 709-723.
- Mohanty, Mritunjy. 1992. *Strategies for Solution of Debt Crisis: An Overview*. *Economic and Political Weekly* 27(9): 465-476.
- Palley, Thomas I. 2015. *Milton Friedman's Economics and political Economy: An Old Keynesian Critique*. In *Milton Friedman: Contributions to Economics and Public policy*, ed. Robert Cord. New York: Oxford University Press.
- Powell, Jim. 2003. *FDR's folly*. New York: Three Rivers Press.
- Ries, Philippe. 2000. *The Asian Storm*. Boston, MA: Tuttle Publishing.
- Righi, Marcelo Butti and Paulo Sergio Ceretta. 2013. *Risk Prediction management and Weak Form Market Efficiency in Eurozone Financial Crisis*. *International Review of Financial Analysis* 30: 384-393.
- Rodrik, Dani. 2009. *A Plan B for Global Finance*. *The Economist*. March 12.

Sato, Takafumi. 2003. Changes in the Japanese Financial Failure Resolution System. In Financial Crises in Japan and Latin America, ed. E. Demaestri and P. Masci. Washington, DC: Inter-American development Bank.

Tobin, J. (1997). *Supply Constraints on Employment and Output: NAIRU versus Natural Rate*. Cowles Foundation discussion paper No. 1150. New Haven, Yale University.

Walton, John and Charles Ragin. 1990. Global and national Sources of Political protest: Third World Responses to the debt Crisis. *American Sociological review* 55(6): 876-890.

Contact

Klára Čermáková

University of Economics

W. Churchill square 4, Prague 3

Klara.cermakovase.cz

Emilie Jašová

Ministry of Labour and Social Affairs

Na Poříčném právu 1/376

Prague, Czech Republic

ekonomka_2@hotmail.com