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GLOBALIZATION AND ECONOMIC CRISIS IN EUROPEAN COUNTRIES

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─Abstract ─
The paper analyzes the relation between degree of economic globalization and the impact of economic crisis for developed and emerging European countries. We measure economic globalization through indexes based on share of external trade in GDP and FDI intensity (% of FDI inflows and outflows divided by GDP). The complexity of current economic and financial crisis could be evaluated through GDP growth rate, inflation rate, unemployment, public debt, budget deficit, balance of payments, exchange rate, etc. For the purpose of this paper we used GDP growth rate as a measure of economic crisis impact on national economies.

Key Words: *Globalization, Economic crisis, GDP, European countries*

JEL Classification: F01, F15, G01

1. INTRODUCTION

The world experienced a long period of growth in the last 30 years. Globalization has driven economic growth by technology, financial markets, trade openness and foreign direct investments. Even in the good years, there are a lot of critical opinions regarding the effects of globalization. As Amartya Sen (Sen, 2008:19) says, globalization can be seen as *a gift from the West to the world,* or *the devil itself.* Should we blame globalization for the recent crisis? The strong negative

rates of GDP growth recorded by almost all countries in 2009 bring more arguments for those who are against globalization.

Global economy means global crises. This wasn't the first global crisis, but at the end of 2008 became clear that the global economy is going to enter in the most severe crisis in the last half century. Since then, a lot of studies, analysis, books and articles have been written. Paul Krugman (Krugman, 2009:10) wrote about the return of depression economics, George Soros (Soros, 2008:76) wrote about the necessity of a new paradigm, specialists form World Bank, International Monetary Fund, OECD, EU, etc. all asked themselves *how was it possible* and *what can be done in the future*.

The impact of crisis was different. European countries were all deeply affected. In 2011, some of them are still recovering. In high-income Europe the projected growth for 2011 is 1,4 % and middle-income countries that experienced very pronounced booms during the period 2003-2007 are currently undergoing severe restructuring (World Bank, 2011:11). Is it globalization responsible for the amplitude of recession or for slow rhythm of recovery? In this paper we study the possible relation between the magnitudes of negative growth rates recorded in the last crisis and the degree of globalization for 27 European countries: 24 EU countries (without Cyprus, Malta and Luxemburg) and 3 candidate countries (Croatia, FYR Macedonia and Turkey).

Measuring globalization is really a challenge. The complexity and dynamic of the globalization, the absence of a general accepted definition, and the necessity of reliable and available data are some of the sources of debates in the literature. In this context seems appropriate to start our paper reviewing the ways of measuring globalization.

2. HOW GLOBALIZED ARE THE EUROPEAN COUNTRIES?

In order to provide a synthesis of the existing literature on globalization indicators we can classify them into two categories: (a) indicators measuring one particular aspect of globalization (b) indexes constructed on different variables, used to rank and compare globalization in different countries. OECD, European Union, World Bank, International Monetary Fund, UNCTAD's databases and reports are important resources for the first type of indicators. Indexes are proposed by independent researcher, by universities research centers, by NGO's and are

generally constructed on the available information provided by the actors from the first category.

Indexes are the expression of the globalization complexity, in terms of globalization dimensions covered, number of countries and number of years. We choose to present two relevant indexes: KOF Index of Globalization and Maastricht Globalization Index.

KOF Index of Globalization is a composite index introduced in 2002 by Dreher as an instrument to measure the impact of globalization on economic growth (Dreher, 2006: 1091-1110). Using panel data for 123 countries, for 30 years Dreher determined the values for this index and analyzed empirically whether the globalization affect economic growth. The conclusion of Dreher's study was that "contrary to the beliefs of its critics, globalization indeed promotes growth". But the most valuable outcome of the article was the index of globalization, used as a base for future research.

Later, the index was updated and described in detail in Dreher, Gaston and Martens book *Measuring Globalization – Gauging Its Consequences* (Dreher, Gaston, Martens, 2008). KOF Globalization Index covers the economic, social and political dimension of globalization. Looking at globalization as a "process that erodes national boundaries, integrates national economies, cultures, technologies and governance and produces complex relations of mutual interdependence" the authors focus on the three most important dimensions of globalization.

Economic globalization is measured by two dimensions: actual economic flows (trade, FDI and portfolio investments as a percent of GDP) and restrictions on trade and capital. The KOF Index of Globalization is available for the period 2002 – 2011, and the update version of the original index for 2010 determines the Index values for 208 countries.

Maastricht Globalization Index (MGI) is proposed by Pim Martens from Maastricht University, "to be in position to evaluate the consequences of globalization in a rational and scientific manner" (Martens, 2011). Thinking that economic globalization is not the only aspect that counts, the MGI is determined for five dimensions of globalization: political, economic, social & cultural, technological and ecological. Economic globalization is evaluated based on the following variables: trade (Imports + Exports of goods and services as a share of

GDP); FDI (Gross foreign direct stocks as a share of GDP); capital (Gross private capital flows as a share of GDP).

Integration is the key word for the global economy. International economic integration indicators can be classified into two categories: price – based and quantity based indicators. The most commonly used integration measure based on quantities is the degree of openness defined as exports plus imports divided by GDP (Arribas, Perez and Tortosa-Ausina, 2009:128). This measure provides a synthetic approach from economic globalization point of view and one of the main advantages is data availability for long time series and a large number of countries. On the other hand, one of the most important dimensions of globalization for both developed and developing countries is related to Foreign Direct Investment flows.

European Union developed through Eurostat a list of Globalization Indicators that includes the main levels of globalization: persons (non-national among residents, non-nationals in the labor force, nights spent by non-EU residents inside EU, number of tourism nights spent abroad by residents, international air transport of passengers); technology (high tech exports, high tech imports, Gross Domestic expenditures on R&D); goods and services (export of goods, import of goods, export of services, import of services, intra EU trade in goods, energy dependency, growth of maritime transport, growth of air freight transport; global responsibility (CO_2 emissions per habitant in the EU and developing countries, official development assistance); business and capital (inward Foreign Direct Investment from the rest of the world, Outward Foreign Direct Investment, Market integration, Foreign controlled enterprises, Employment of foreign controlled enterprises, Outsources employment). The list is very comprehensive but in general Eurostat provides only information on member states and candidate countries.

The same kind of problem appears related to OECD databases and reports. OECD is a leading actor in issues of economic globalization indicators, but the countries covered are the 31 members of OECD. In 2010, OECD second edition book on economic globalization indicators (OECD, 2010) provides a comprehensive selection of the main dimensions of economic globalization measures. The book covers indicators that can measure the magnitude and intensity of globalization: globalization of trade and investment - international trade of goods and services;

foreign direct investment; portfolio investment; globalization of technology and knowledge; multinational enterprises; global value chains.

UNCTAD research and reports (*Trade and Development Report, World Investment Report*) offers a wider selection of countries. Economic globalization is also evaluated through trade and FDI share in GDP.

In order to evaluate the degree of globalization of the selected European countries we considered the latest available values and rankings for KOF Index of Globalization, Maastricht Index of Globalization, that includes FDI (inflows and outflows as a percent of GDP) and trade (imports and exports as a percent of GDP) for economic globalization evaluation. Table 1 is a synoptic view on the 27 selected countries.

The countries ranked in top ten most globalized countries regarding both indexes are Austria, Belgium, Denmark, France, Ireland and Netherlands. The countries ranked on ten last places on both indexes are Bulgaria, Latvia, Lithuania, FYR Macedonia, Poland, Romania, and Turkey. The last ten positions on economic globalization index in our panel are Bulgaria (18/27), Croatia (22/27), Greece (21/27), Italy (23/27), Lithuania (20/27), FYR Macedonia (26/27), Poland (24/27), Romania (25/27), Spain (19/27), and Turkey (27/27).

The most globalized and the less globalized countries came in all kind of shapes and sizes. We cannot find any pattern, any rule in the results for the degree of globalization: we find developed and developing countries in top ten, we find both small and big countries in these rankings. The only rule seems to be related to the status related to EU: member states of European Union have higher scores than candidate countries.

Table 1. Measuring European Countries Globalization – values and rankings

	GDP growth rate	KOF globalization index		KOF economic globalization		Maastricht Globalization Index	
Year	**2009**	**2011 (2008 data)**		**2011 (2008 data)**		**2008**	
		Rank	**Score**	**Rank**	**Score**	**Rank**	**Score**
Austria	-3,89	2	92,6	12	87,58	6	62,1
Belgium	-2,75	1	91,67	5	90,95	2	68,4
Bulgaria	-4,95	32	75,12	30	78,67	29	39,5
Croatia	-5,81	31	75,95	41	74,23	24	45,5

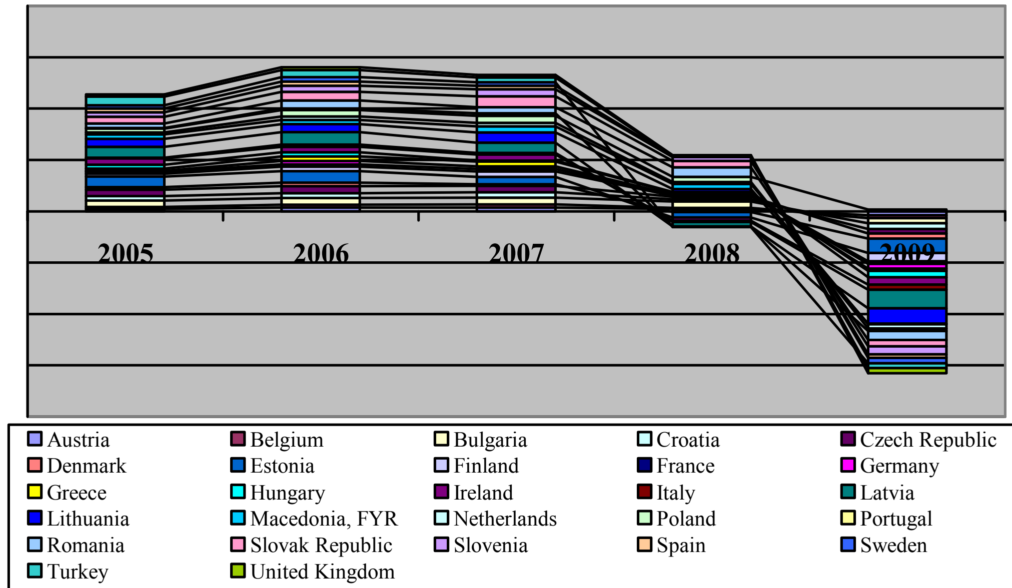
Czech Republic	-4,25	12	86,33	14	86,56	17	48,3
Denmark	-4,89	6	88,96	13	86,73	10	53,8
Estonia	-14,08	24	80,22	8	89,2	15	50,5
Finland	-8,02	11	86,43	15	85,77	32	36,3
France	-2,63	7	87,65	25	81,45	5	62,5
Germany	-4,72	16	85,1	28	79,81	9	51,8
Greece	-1,96	29	76,98	39	75,04	21	47,8
Hungary	-6,30	8	87,62	7	89,82	27	43,0
Ireland	-7,10	10	86,45	3	92,93	1	72,0
Italy	-5,04	23	81,12	46	72,93	13	51,7
Latvia	-18,01	41	70,32	29	79,29	50	30,2
Lithuania	-15,03	36	73,64	34	77,39	47	30,6
Macedonia, FYR	-0,70	65	62,03	64	65,87	58	28,0
Netherlands	-3,99	3	91,16	6	90,72	4	68,3
Poland	1,70	28	79,66	49	72,34	30	37,0
Portugal	-2,58	9	87,28	20	84,26	22	46,8
Romania	-8,50	39	71,25	53	69,91	35	33,4
Slovak Republic	-6,20	15	85,3	19	84,77	31	36,3
Slovenia	-7,80	26	79,88	23	82,43	26	43,2
Spain	-3,64	17	84,71	31	78,65	11	53,1
Sweden	-5,14	4	89,26	10	87,9	14	51,6
Turkey	-4,69	59	64,04	95	54,25	40	32,1
United Kingdom	-4,92	21	81,68	22	82,98	8	58,7

Source: http://globalization.kof.ethz.ch , http://www.globalisationindex.info/MGI/MGI.html

3. EUROPE 2005 – 2009: GROWTH AND DECLINE

European countries' crisis began in the second half of the year 2008. In 2009 all selected countries, with the exception of Poland experienced negative GDP growth rates, with a maximum output fall of – 18,1% in Latvia. The differences between the selected countries in terms of economic growth before and after the crisis cannot be explained only by economic globalization - threshold effects in financial development, institutional quality, or trade integration. We suggest that economic, financial and political integration are complementary.

Figure-1: GDP growth rates 2005-2009



Source: Author based on World Bank data

Analyzing economic growth before and after the crisis we identified some patterns in countries' evolution: there are countries with high growth rates before the crisis and a high drop in output and GDP per capita in crisis time - Latvia, Lithuania, Estonia, Romania, Hungary, Bulgaria, Poland, Czech Republic, Slovak Republic, Slovenia, Ireland, Turkey; there are the most stable economies of the group, with a smoother business cycle, that experienced slow growth in years 2000 and the lowest drop in 2009 - Netherlands, Austria, Spain, Belgium, France, Greece; and we have medium countries (their output felled down after a period of rather slow economic growth in the years before the crisis) - Sweden, Italy, Denmark, United Kingdom, Germany, Portugal, Croatia and FYR Macedonia. Even their growth rates before the crisis were not impressive, the lost in 2009 was below 3%. Greece is the big question in this last group, the proof that GDP growth rate is far to be the only relevant indicator for the economic crisis.

4. GLOBALIZATION AND GDP GROWTH RATE

There are a lot of studies concluding that globalization is good for growth. Dreher (Dreher, 2006:16) studied 123 countries based on the KOF index of globalization

and concludes there is a direct relationship between the globalization level and economic growth of a country.

Table2. Per capita GDP Growth and Globalization (1970 – 2000, 123 countries)

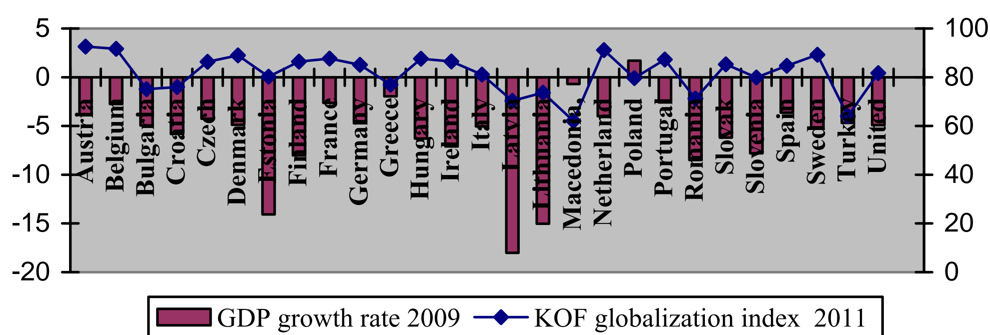
	1970-75	1976-80	1981-85	1986-90	1991-95	1996-2000
Countries with low globalization	2,62	2,08	0,35	0,68	0,14	1,16
Countries (number)	68	71	80	83	64	40
Countries with high globalization	2.99	3,02	0,79	2,64	1,24	2,04
Countries (number)	38	38	36	36	59	82

Source: Dreher: 2006:23

We can say if globalization is good for growth, is bad for recession. Martens tested the hypothesis that more globalized countries in Europe are equally vulnerable to the current crisis as less globalized European countries based on Maastricht Globalization Index (Martens, 2010:1). The results in this case seems to suggest that a high level of globalization increases vulnerability to economic crisis and, in the same time, higher globalization increase opportunities to deal with a crisis.

To determine if a globalized country is more vulnerable to the crisis than a less globalized one we tested the correlation between KOF Index of Globalization and KOF Economic Index of Globalization (values and rankings of 2011, determined based on 2008 data) and GDP growth rates (2009). The results are not significant.

Figure-2: GDP growth rates 2009 and KOF Index 2011 (2008 data)



Source: Author

5. CONCLUSIONS

This paper studies the link between globalization level of a country and the impact of the economic crisis. This link was often analyzed using conventional measures of globalization and for economic growth periods. The same type of analysis realized using KOF Index of Globalization for 27 European countries show us that even economic crisis and globalization are logically related, the size of GDP negative growth rate in 2009 was not directly related to the level of globalization of these countries.

In order to accurately determine the link between globalization and crisis it is probably necessary to compare the values before and after the crisis and to use some more sophisticated methods. In this point we consider important the conclusion that more globalized countries didn't necessarily suffer more in crisis. It is no need to fight against globalization through recovery policies, from this perspective.

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