

AVOIDING THE HIGH DEBT – LOW GROWTH TRAP: LESSONS FOR THE NEW MEMBER STATES

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Abstract. Despite relatively low starting level, public debt has been rising quickly in the post-socialist New Member States (NMS) of the European Union. The rising international literature on the effects of debt on economic development provides several lessons, although it mostly deals with the advanced industrial countries. The aim of this paper is twofold. Firstly, the authors of this paper survey the existing literature and draw possible conclusions for the NMS. The main argument here is that there are good reasons for the NMS to avoid high debt levels for reasons, such as negative impact on economic growth and related difficulties with deleveraging. Secondly, the authors inspect the data for the whole European Union from 2000 until 2013 and compare the impact of the indebtedness on Western versus Post-Communist economies. Empirical findings are in line with the previous research and show that high levels of indebtedness are more damaging to the post-communist countries. Therefore, in the conclusion, the theoretical and empirical arguments in favour of avoiding high debt levels are summarized.

Keywords: public debt, economic growth, debt threshold, external debt, debt overhangs, advanced and emerging economies.

JEL classification: C12, E62, F43.

Introduction

Most developed countries have reached unprecedented levels of indebtedness in peacetime. As the McKinsey Global Institute (2010) found, total debt (combined debt of households, nonfinancial corporations, financial sector and government) relative to GDP in ten largest mature economies¹ increased from about 200 percent of GDP in 1995 to over 300 percent by 2008. The experts of the Bank for International Settlements (BIS) realised that the debt-to-GDP ratio in advanced economies (18 OECD members) rose relentlessly from 167% in 1980 to 314% in

2010², or by an average of more than 5 percentage points of GDP per year over the last three decades (Cecchetti *et al.*, 2011). High indebtedness can be dangerous for various reasons. For example, borrowers may find it increasingly difficult to meet their obligations and they can default on their debt causing losses to the lenders. If the borrower is government, its insolvency leading to sovereign debt default or very high inflation would harm the whole economy. Additionally, high debt levels are also negatively correlated with economic growth and rising expenditure on debt payments limits, amongst other types of spending.

Although debt levels in the New Member States (NMS) of the European Union are usually much lower than in most advanced countries (including the “old” EU members), they were rising rapidly in the aftermath of the financial crisis. In one half of the NMS the debt-to-GDP ratio doubled or almost doubled in five years, following 2008. Therefore, it may be useful to study the findings of empirical literature on the effects of indebtedness, in spite of the fact that they concentrate on advanced economies. The aim of this paper is twofold. Firstly, the authors of this paper discuss this literature and investigate associations between the relevant economic indicators with regard to 11 post-socialist members of the EU³. Secondly, the authors confront the previous literature with empirical data and, using the time-series regression analysis, they investigate the differences between Western and Eastern European economies.

After the introduction, the most recent and relevant empirical literature that links public debts with the economic growth in the light of crisis is discussed. Subsequently, this paper offers the authors’ own empirical work and investigates the associations in question, however, taking into consideration the whole European Union. In the third and final part, the authors argue that there are good reasons for the NMS not only to avoid the unprecedented debt levels reached by developed countries, but also to keep their indebtedness well below these levels (in other words, well below the so called debt thresholds identified in empirical studies). Then, the conclusion summarises the findings and formulates the final lesson of the present study.

Relationship between debt and growth

The connection between debt and growth works through two potential channels. The first is the adverse effect on private sector investment and savings: *“When public debt is very high, it will tend to soak up the available investment funds and thus to crowd out private investment. If the government at the same time is imposing policies that attempt to reduce its debt burden with higher taxes, a burst of unexpected inflation, or various types of financial repression, then investment may well be discouraged further. The second channel involves a rising risk premium on the interest rates for government debt”* (Reinhart *et al.*, 2012, p. 79-80). Rising debt levels can increasingly question the ability of government to honour its obligations what in turn can result in higher risk premia (higher long-term real interest rates), and this might subsequently increase public expenditure and deter private lending and consumption.

“As debt levels increase, borrowers’ ability to repay becomes progressively more sensitive to drops in income and sales as well as increases in interest rates. For a given shock, the higher debt, the higher is the probability of defaulting... And when lenders stop lending, consumption and investment fall. If the downturn is bad enough, defaults, deficient demand and high unemployment might be the grim result. The higher the level of debt, the bigger the drop for a given size of shock to the economy. And the bigger the drop in aggregate activity, the higher the

probability that borrowers will not be able to make payments on their non-state-contingent debt. In other words, higher nominal debt raises real volatility, increases financial fragility and reduces average growth” (Cecchetti et al., 2011, p. 4).

Several empirical papers have recently documented a negative correlation between high public debt (debt-to-GDP ratio of around 85-95 percent or more) and GDP growth.

Reinhart and Rogoff (2010) studied a large sample of 20 advanced and 24 emerging economies⁴ using historical data accounting for almost two centuries. The authors found that public debt has little effect on economic growth until debt reaches 90% of GDP, but growth rates then drop sharply: *“Above 90 percent, median growth rates fall by one percent, and average growth falls considerably more. We find that the threshold for public debt is similar in advanced and emerging economies”* (Reinhart and Rogoff, 2010, p. 1).

However, just a few years later, Herndon, Ash and Pollin (2013) criticized Reinhart and Rogoff for understating average growth at high debt levels as a consequence of several mistakes (coding errors, selective exclusion of available data, and unconventional weighting of summary statistics). By replicating a part of their analysis (a sample of 20 advanced economies between 1946 and 2009), they found out that *“GDP growth rate for countries carrying a public-debt-to-GDP ratio of over 90 percent is actually 2.2 percent, not -0.1 percent as published in Reinhart and Rogoff”* (Herndon et al., 2013, p. 1). Thus, this makes the relationship between high debt and growth more linear, contrary to Reinhart and Rogoff, suggesting a sharper decline of growth above the 90% threshold.

In a few responses to the Herndon, Ash and Pollin’s paper, Reinhart and Rogoff acknowledged the coding error and some other mistakes, and in their later papers they corrected the data. On the other hand, they pointed out that their data set is a work in progress and they are constantly updating their analysis with new figures in newly published papers (see below and in the Textbox) and, more importantly, that they did not stress any single number in their analysis, but consistently used several calculations. For example, the presented median growth rates across thresholds were very similar to the Herndon, Ash and Pollin’s figures (The Economist, April 20th, 2013). In the errata of their original paper, they pointed out that *“[...] [Herndon, Ash and Pollin’s] paper is silent on the results of the longer sample dating back to the 1800s for most of the advanced economies and the exercise on emerging markets that are part of our May 2010 paper. It also fails to mention that our median estimates for the post-war sample are very close in magnitude to the averages that they present”* (Reinhart and Rogoff, 2013, p. 1).

It would be an unexciting academic debate barely reaching the mass media, but during the aftermath of the financial crisis with exploding public debt levels the Reinhart-Rogoff paper became an important argument in a heated political debate over fiscal consolidation. *“The 90% figure quickly became ammunition in political arguments over austerity. Paul Ryan, a Republican congressman, cited their «conclusive empirical evidence» in a budget plan calling for swingeing cuts to public spending. [...] Olli Rehn, the vice-president of the European Commission, touted the «widely acknowledged» 90% limit as a reason to press on with European fiscal cuts. Such rhetoric has helped to make the Reinhart-Rogoff number the subject of bitter dispute”* (The Economist, April 20th, 2013). In spite of the political waves it caused, the Reinhart and Rogoff’s mistake should not be interpreted as there is no relationship between debt and growth (and so no need for austerity measures at all). The critics demonstrated “only” that there is no debt threshold in the sense of tipping or breaking point after which GDP growth sharply declines. But the finding

that high levels of debt are associated with lower growth was not questioned at all. This result is underpinned by several other empirical studies (see below and in the Textbox).

Kumar and Woo (2010) found an inverse relationship between initial public debt and subsequent economic growth: according to their findings, on average a 10 percentage point increase in the initial debt-to-GDP ratio is associated with a slowdown in annual real per capita GDP growth of around 0.2 percentage points per year⁵. Checherita and Rother (2010) presented a “*robust conclusion*” in their paper that above a 90-100% of GDP threshold (they called it the debt turning point) public debt is, on average, harmful for growth in their sample of 12-euro area countries⁶. In a following paper (using data for the same sample between 1990 and 2010) they showed that the short-run impact of low debt on GDP growth is positive, but decreases to close to zero and loses significance beyond public debt-to-GDP ratios of around 67% (Baum *et al.*, 2012). On the other hand, in the case of high debt ratios (debt-to-GDP above 95%) the additional debt has a negative impact on economic activity.

Presbiterio (2010) studied 92 developing countries between 1990 and 2007 and interestingly was led to a very different conclusion: debt overhang in low and middle-income countries is a growth constraint also for lower levels of debt and it becomes irrelevant over 90 percent. This evidence suggests that it is the other way around in developing countries – public debt has a negative impact on output growth *up to* a threshold of 90 percent of GDP, beyond which its effect becomes irrelevant. The main reason behind these antithetic results – according to the author – is likely to be the composition of the sample: “*Industrialized countries are better able than developing ones to borrow and use domestic and foreign financing in a productive way, without paying the costs in terms of disincentive to investment, capital flight, policy volatility and crowding out, that generally goes hand in hand with large debts. By contrast, in developing countries the negative consequences [...] are related to poor economic management and bad institutions [...]*” (Presbiterio, 2010, p. 11).

Revisiting their former hypothesis between debt and growth in developed countries, Reinhart, Reinhart and Rogoff (2012) found that in countries with exceptionally high public debt (defined as episodes where public debt to GDP exceeded 90 percent for at least five years) the average growth was by 1.2 percentage points lower than in times with lower debt levels⁷. Cecchetti, Mohanty and Zampolli (2011) found a similar result: an additional 10 percent increase in the debt ratio reduces future average annual growth by about 17-18 basis points (0.17-0.18%) in advanced economies⁸. Their results support the view that, beyond a certain level, debt is bad for growth not only in the case of government debt (the threshold is around 85% of GDP), but for corporate debt (where the threshold is closer to 90%) and for household debt also (here, the threshold is around 85% of GDP, “*although the impact is very imprecisely estimated*”).

The IMF experts have looked at the growth performance of developed countries since the late 19th century during the episodes when their debt to GDP ratio crossed 100 percent (IMF, 2012). They realised that during these episodes (26 were identified) these highly indebted countries tended to have lower growth rates over the next 15 years (after crossing the 100 percent threshold) than the developed country average. However, by looking at different debt levels and separating indebted countries to two subgroups, they also demonstrated that it matters whether a country’s debt level is increasing or decreasing. There is a statistically significant difference between the two, the indebted countries with declining debt levels had a better performance than the ones with increasing debt, and between 90 and 110 percent debt-to-GDP ratio they even outperformed the control group, i.e. the advanced country average (IMF, 2012). The evidence for lower growth is, therefore, limited to the countries

with rising debt, however, in this subgroup it is quite significant – average real per capita GDP growth slower by around 0.2-0.5 percentage points from debt levels above about 85%.

Textbox: Summary of some empirical studies looking at the relation between public debt and economic growth

Source	Sample, time period	Main findings	Threshold
Reinhart and Rogoff, 2010	20 advanced economies (1790-2009) and 24 emerging market economies (1946-2009 and 1900-2009)	The relationship between government debt and real GDP growth is weak for debt/GDP ratios below a threshold of 90 percent. Above 90 percent, median growth rates fall by one percent, and average growth falls considerably more. The threshold for public debt is similar in advanced and emerging economies.	Public debt/GDP ratio above 90%
Herndon, Ash and Pollin, 2013	20 advanced economies over 1946-2009 – the same as one part of the above dataset	Critique of Reinhart and Rogoff: due to coding errors, selective exclusion of available data, and unconventional weighting of summary statistics they understated average growth at high debt levels: “[...] <i>the average real GDP growth rate for countries carrying a public-debt-to-GDP ratio of over 90 percent is actually 2.2 percent, not -0.1 percent as published in Reinhart and Rogoff. That is, contrary to RR, average GDP growth at public debt/GDP ratios over 90 percent is not dramatically different than when debt/GDP ratios are lower.</i> ”	No, at high debt levels rather more linear relationship between debt and growth
Kumar and Woo, 2010	38 advanced and emerging economies with a population of over 5 million, 1970-2007	Inverse relationship between initial debt and subsequent real per capita GDP growth, controlling for other determinants of growth: an increase of 10 percentage points in the initial debt/GDP ratio is associated with a slowdown of around 0.2 percentage points per year in growth (the impact being smaller, around 0.15 in advanced economies).	“Some evidence” of nonlinearity: this effect is only significant at a debt/GDP ratio above about 90%
Presbiterio, 2010	92 low- and middle-income (developing) countries over the period 1990-2007	Debt overhang in low and middle-income countries is a growth constraint also for lower levels of debt. Interestingly, public debt has a negative impact on output growth up to a threshold of 90 percent of GDP, beyond which its effect becomes irrelevant (differences explained by weak institutions and bad policies in developing countries).	90 percent but, contrary to other studies, it is an upper one
Checherita and Rother, 2010	12 euro area countries over a period of about 40 years starting in 1970	Highly statistically significant non-linear relationship between debt and per-capita GDP growth: government debt-to-GDP ratios above 90-100% have a negative effect on growth. Confidence intervals for the debt turning point suggest that the negative growth effect of high debt may start already from levels of around 70-80% of GDP.	Non-linear impact of debt on growth with a “turning point” at about 90-100% debt-to-GDP ratio

Cecchetti, Mohanty and Zampolli, 2011	18 OECD countries from 1980 to 2010	Beyond a certain level, debt is bad for growth. For government and household debt, the number is about 85% of GDP. For corporate debt, the threshold is closer to 90%. Regarding public debt, a 10 percentage point increase in its ratio to GDP is associated with a 17-18 basis point reduction in subsequent average annual growth.	Debt around 85% of GDP
Reinhart, Reinhart and Rogoff, 2012	Advanced economies, 1800-2011 (26 episodes with exceptionally high debt)	In countries with exceptionally high public debt (debt to GDP over 90 percent for at least five years) the average growth was by 1.2 percentage points lower than in times with lower debt levels.	Debt to GDP 90 percent for 5 years and over
IMF, 2012	IMF database on 22 advanced economies from 1875 to 2012 (26 episodes when gross public debt rises above 100 percent of GDP)	Countries that crossed the 100 percent (debt to GDP) threshold over the next 15 year period typically experienced lower GDP growth than the advanced economy average. However, it matters whether a country's debt level is increasing or decreasing. Growth performance in countries for which debt is decreasing (after crossing the threshold) is better than in countries for which it is increasing.	Rather no, but over around 85 percent of GDP lower growth, however significant only in countries with rising debt levels
Baum, Checherita-Westphal and Rother, 2012	12 euro area countries, 1990-2010	The short-run impact of debt on GDP growth is positive and highly statistically significant, but decreases to around zero and loses significance beyond public debt-to-GDP ratios of around 67%. For high debt-to-GDP ratios (above 95%), additional debt has a negative impact on economic activity. Long-term interest rate is subject to increased pressure when the public debt-to-GDP ratio is above 70%.	Public debt/GDP ratio above 95 percent

Source: created by the authors

Considering the mixed results of empirical studies, it is hard to conclude on the relationship between debt and growth, let alone to form some policy proposals. The strong supportive evidence on the causal link between high debt and lower growth is missing. Slow growth might be caused by high public debt levels, but it could be the other way around, as well: *“high debt may itself be the result of sluggish growth, or it could reflect a third factor that at the same time increases debt and reduces growth (for example, a war or a financial crisis)”* (IMF, 2012, p. 107). The growing body of empirical literature presented above shows that there is a negative correlation between public debt and economic growth, especially in the case of advanced economies, and there is quite solid evidence that this correlation becomes stronger when debt levels cross a threshold around 85-95% of GDP. Correlation, however, does not imply causation.

The IMF analysis noted that “*there is no simple relationship between debt and growth. In fact, our subsequent analysis emphasizes that there are many factors that matter for a country’s growth and debt performance. Moreover, there is no single threshold for debt ratios that can delineate the «bad» from the «good»*” (IMF, 2012, p. 109).

Although the empirical results on the relationship between debt and growth are mixed and limited, they are still relevant for designing fiscal policies. In the following part, the authors of the present paper focus on the difference between Western and Eastern European countries and discuss several reasons for countries (especially the developing ones) to avoid high debt levels, many of them related to the abovementioned literature.

Evidence from and lessons for New Member States

In this section, firstly, the theoretical arguments for the NMS to avoid high indebtedness will be summarized. Subsequently, the empirical evidence will be inspected and the relevant lessons for the New Member States will be discussed.

Growing empirical literature shows a negative correlation between the public debt and economic growth. Previous research also suggests strong evidence that this correlation becomes stronger (or significant) when public debt crosses a certain threshold (around 85-95 percent of GDP in the case of advanced economies). Additionally, some empirical evidence suggests that this threshold is lower in the case of emerging economies (which most NMS certainly are). Presbiterio (2010) demonstrated that debt overhang in low and middle-income countries is a growth constraint also at lower levels of debt (compared to advanced economies) and interestingly becomes irrelevant over 90 percent of GDP. This was explained by poor economic management and bad institutions in developing countries. Reinhart and Rogoff (2010) provided additional empirical evidence for lower thresholds for emerging market’s external debt (public and private) – which is usually denominated in a foreign currency. They found that when external debt reaches 60 percent of GDP, annual growth declines by about two percent; for higher levels, growth rates are roughly cut in half (this part of their research was not questioned). Therefore, it is in the economic interest of the NMS to avoid high indebtedness.

Secondly, financial history shows that once public debt reached high levels, it is likely to remain there for quite a long time. Deleveraging processes are often slow and painful even if the countries manage to avoid default. The latest financial crisis has demonstrated well that prudent governments should aim to keep their debt well below the thresholds, so that even extraordinary events are unlikely to increase indebtedness to unsustainable levels.

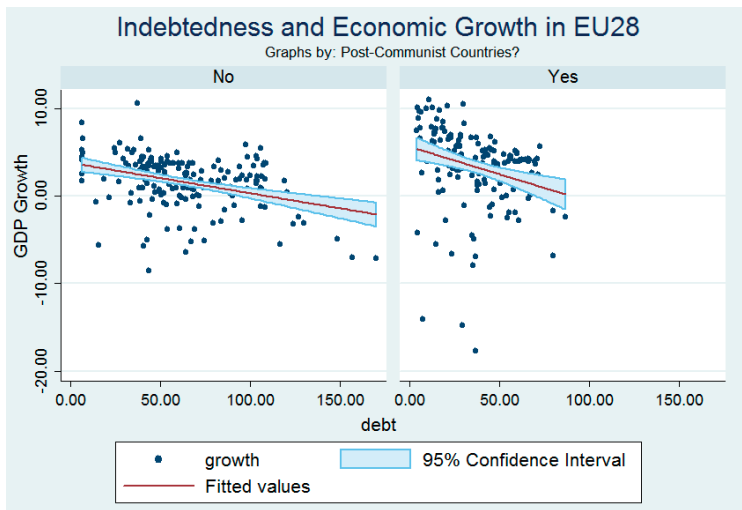
Last but not least, the current circumstances (aftermath of the financial crisis linked with the sluggish growth, austerity, etc.) have provided a negative external environment for debt reduction, comparing to the previous consolidation efforts.

The experience of the 10 new post-socialist member states of the EU is broadly in line with the findings of the literature. In order to reveal what is the most relevant lesson to take and where the theory might not be the best advisor, the authors of the present paper inspect empirical data regarding economic growth, debt and interest rates.

Regarding the link between growth and debt, the authors have collected data for all the EU Member States from 2000 to 2013 and plotted the debt level against the econom-

ic growth. Figure 1 below shows the comparison of two groups of countries: the Western European countries and the Eastern European, post-communist countries.

Figure 1: Economic Growth and Public Debt in the European Union, Comparison of Western v. Eastern States

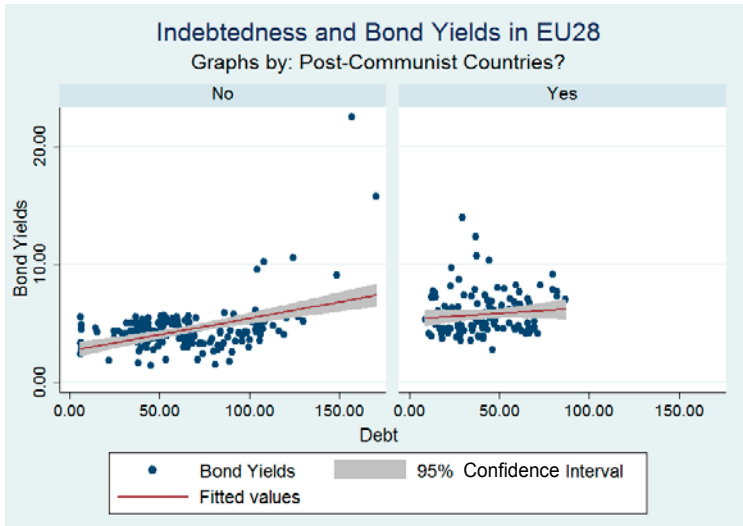


Source: Eurostat 2014a

The data show that there is a clear negative association between the debt level of countries and their economic growth. Interestingly, the regression line is steeper in the case of post-communist countries, which indicates that the negative effect of debt level on the GDP growth is stronger in the post-communist countries. The development of the two factors for individual countries is shown in Appendix 1.

On the other hand, the empirical literature suggests a link between the debt and government bond yields. Looking at the European Union since 2000, the evidence is not very persuasive. Figure 2 shows the association between the interest rate on government bonds and debt levels. The relationship is positive, as it has been expected. However, the regression line is steeper in Western Europe. This would suggest that the high general debt is increasing the interest rates on government bonds and the financial markets are stricter to Western Europe than the post-communist countries. However, this image is biased by high values of indebtedness of a few countries, especially Greece and Portugal. After removing four Mediterranean countries from the analysis, the regression line becomes almost perfectly flat (figure not shown).

Figure 2: Indebtedness Level and Bond Yields in the European Union, Comparison of Western v. Eastern States



Source: Eurostat 2014a, Eurostat 2014b

Finally, the authors investigate a relationship between debt and economic growth by running a time-series regression model. Firstly, the authors want to estimate the effect of indebtedness on growth while controlling for the West-East division and the past performance. Secondly, by adding an interaction term into the equation, if the indebtedness impacts the post-communist countries differently or not will be shown. This model also allows us to see the proportion of growth variance explained by the indebtedness. Thus, the model could be written as follows:

$$Y_{it} = a_0 + \beta_{1t}debt_{it} + \beta_{2t}comm_{it} + \beta_{3t}growth_{it-1} + \beta_{4t}(debt_{it} \cdot comm_{it}) + \varepsilon,$$

where Y is the economic growth in i^{th} country at the time t, debt is measured as the general government debt as percentage of GDP. The term 'comm' is a dummy variable indicating whether a country is post-communist or not. The third term in the equation is one-year lagged economic growth to control for the starting position of the economy. Finally, the interaction of the post-communist dummy variable and the indebtedness level were also added. The betas are regression coefficients corresponding to the respective factors.

In total, we have 328 observations clustered in 28 groups – member states. The overall R-square of the model is 0.2496, which means that the three observed factors account for almost a quarter of the data variation. Table 1 shows the results of the regression analysis.

The regression results are in line with the previous theoretical and empirical work. The analysis shows a negative influence of the indebtedness level on economic growth. The post-communist dummy variable is positive and relatively strong. This could be explained by a relatively strong catch-up process that the post-communist countries experienced prior to the crisis. As expected, the interaction coefficient is negative. This indicates that the slow-

ing effect of the indebtedness on economic growth is even stronger in the post-communist states. This finding highlights the increased vulnerability of the New Member States' economies in the face of high indebtedness.

Table 1: Regression results

Variable	Coefficient	Std. Err.	P-value
Debt	-0.021	0.008	0.011
Post-communist (b=no)	1.371	0.823	0.096
Debt * Post-Comm	-0.017	0.016	0.277
Lagged Growth	0.345	0.053	0.000
Constant	2.047	0.617	0.001
N	328 in 28 groups		
R2	0.250		

Source: Authors' calculation

Discussion

Recent financial crisis has intensified the economic debate about the harming effects of high government debts. Apart from econometric studies, additional argument supporting the weaker position of emerging economies in financing their debts comes from the experience of international rescue packages (bailouts) during the crisis. Soon after the financial crisis hit Europe, three NMS, Hungary and Latvia (in late 2008) and Romania (in 2009) have applied for, and received, multilateral loans packages, which were mostly composed of loans from the IMF and the EU⁹ (Lütz and Kranke, 2010). In the year of the bailout, the debt-to-GDP ratio in Hungary was below 75 percent, in Romania less than 25 percent and in Latvia even less than 20 percent.

The history of economic development provides another reason for avoiding high debt levels. Experience suggests that debt overhangs – mostly combined with sluggish growth – usually last for a long time and deleveraging process is often slow and painful. Reinhart, Reinhart and Rogoff (2012) analysed 26 episodes of public debt overhang since 1800 in advanced economies, i.e., cases where the ratio of gross public debt to GDP exceeded 90 percent in a given country for more than five years (see above and in Table 1). They concluded that “*once a public debt overhang has lasted five years, it is likely to last 10 years or much more (unless the debt was caused by a war that ends). The average duration of our debt overhang episodes was 23 years*” (Reinhart *et al.*, 2012, p. 83-84). The McKinsey Global Institute (2010) analysed 45 historic episodes of deleveraging, in which an economy significantly reduced its total debt to GDP ratio, that have occurred since 1930. They found that “*Historic deleveraging episodes have been painful, on average lasting six to seven years and reducing the ratio of debt to GDP by 25 per cent. GDP typically contracts during the first several years and then recovers*” (McKinsey, 2010, p. 9). IMF experts researching high-debt episodes (public debt above 100 percent) in advanced countries also pointed out a slow deleveraging process: after 15 years, the median debt-to-GDP ratio is only about 10 percentage points lower than in the first year after debt rises above 100 percent (IMF, 2012). The origin of the debt can also be important. War debts are usually seen as less problematic than large debts that are accumulated in peace time (Reinhart and Rogoff, 2010). The reason that post-war growth tends to be high is that war-time allocation

of manpower and resources flow to the civilian economy and in the same time high war-time spending (typically the cause of the debt build up) ends. Needless to say, the current build-up of indebtedness in the NMS is not a result of war, nor other large one-time expenditure like bank bailouts (with the notable exception of Latvia and partially Slovenia). Thus, preventing to fall to a long lasting high debt-low growth trap usually requires painful structural reforms.

Conclusions

This paper enters this debate by reviewing the main arguments of the previous literature and inspecting the latest available data in the enlarged European Union. Previous econometric studies have shown that large government debts are damaging the economic growth and the prospects of a country to recover from recession. The authors of this paper contribute with their econometric analysis to this debate and their findings support the thesis that high debts are even more harming for young, developing economies.

The findings clearly show that the higher indebtedness affects the economic growth in a negative way. Controlling for the starting position and the catch-up effect, the analysis confirmed that the economic prosperity in the post-communist economies is more vulnerable to the debt levels than in Western Europe. Therefore, the authors argue that the attempts to get general government debts under control are especially important in the post-communist economies of the European Union.

The findings correspond with the previous empirical studies. On top of the hard empirical evidence, there are several other reasons why governments should be cautious in their fiscal policies. Experts worldwide agree that populations are ageing and the threat of increased budgetary pressures linked to health care or pension systems are real. The findings indicate that governments, especially in Eastern Europe, should not rely on financing their public policy by increasing the indebtedness of their countries. The lesson is that falling into the high debt-low growth trap is a real threat and getting out is more painful and pricy than avoiding it.

Notes

- ¹ The ten largest developed economies are the following ones: USA, Canada, UK, Germany, France, Italy, Spain, Japan, South Korea and Australia.
- ² Looking at the simple average, total non-financial debt rose by 147 percentage points of GDP from 1980 to 2010. Of this, 38% (56 percentage points) was accounted for by households, 29% (42 percentage points) was a consequence of additional corporate borrowing, and a third (49 percentage points) represents increases in public debt (Cecchetti *et al.*, 2011).
- ³ The eleven NMS are the following ones: Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Slovakia, Slovenia (joined the EU in the 2004 enlargement), Bulgaria and Romania (joined in 2007) and Croatia (joined in 2013).
- ⁴ The multi-country historical data set of Reinhart and Rogoff on central government debt starts in different times for different countries, for example, there are data for the United States since 1790 or for the United Kingdom since 1830 but only since 1950 or even later for most emerging economies. The complete dataset incorporates an impressive number of annual observations: more than 3700.
- ⁵ The analysis is based on a panel of 38 advanced and emerging economies with a population of over 5 million, for the period 1970–2007.
- ⁶ Their paper investigates the average relationship between the government debt-to-GDP ratio and the per-capita GDP growth rate in a sample of 12 euro area countries (Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain) for a period of roughly four decades, starting in 1970.

- ⁷ They looked at the periods of exceptionally high public debt, defined as episodes where public debt to GDP exceeded 90 percent for at least five years. Over the years 1800 –2011, they found 26 such episodes across the advanced economies.
- ⁸ The authors used a dataset that includes the level of government, non-financial corporate and household debt in 18 OECD countries from 1980 to 2010.
- ⁹ The size of emergency loans was the following: €20 billion for Hungary, €7.5 billion for Latvia and €19.95 billion for Romania. The multilateral aid packages had different compositions; most of the money was coming from the IMF in the form of loans under the SBA (Stand-By Arrangement) facility and from the EU in the form of loans under Article 119 of the Treaty establishing the European Community for member states not (yet) part of the Economic and Monetary Union (EMU). Some other institutions, such as the World Bank, the EBRD and some individual member states, also contributed to the packages to a lesser extent (Lütz and Kranke, 2010).

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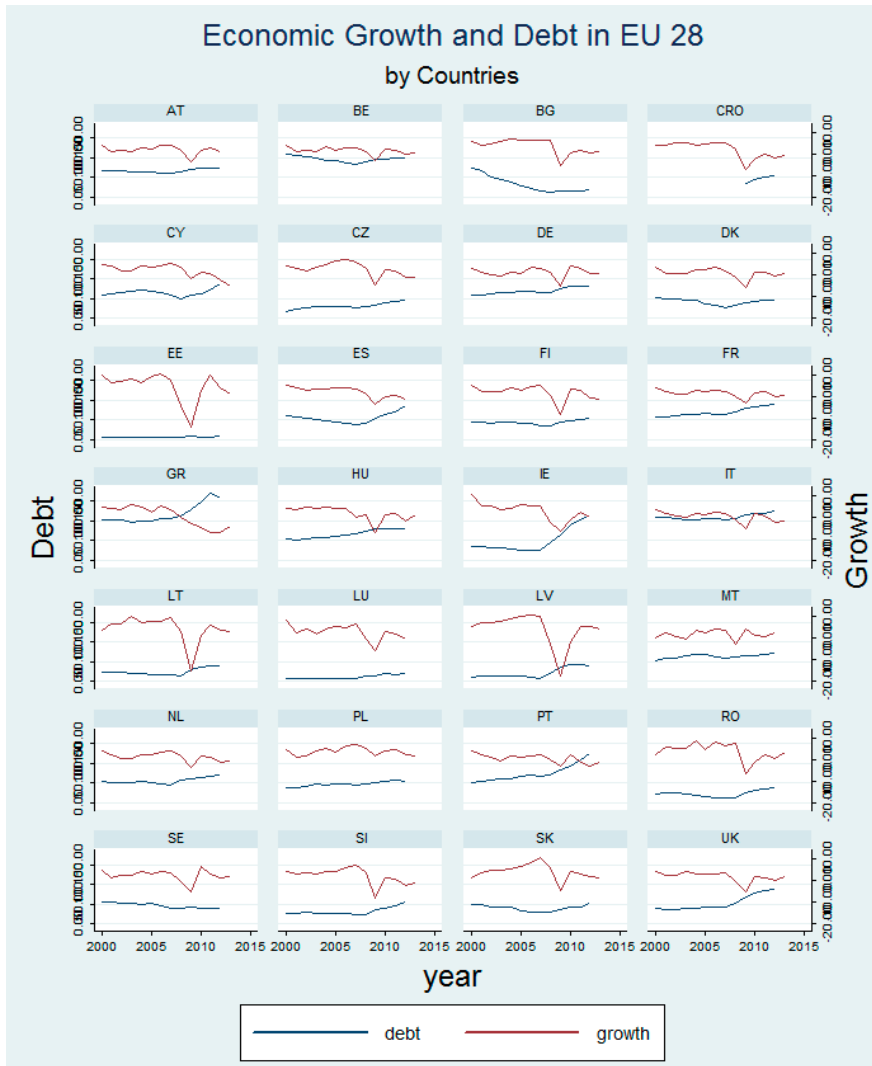
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APPENDIX 1:

Economic Growth and General Government Debt in EU 28, by countries



Source: Eurostat, authors' calculation

KAIP IŠVENGTI DIDELĖS SKOLOS – LĖTO AUGIMO SPĄSTŲ: PAMOKOS NAUJOMS ŠALIMS NARĖMS

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Santrauka. Nepaisant santykinai žemo pradinio lygio, pokomunistinių naujųjų Europos Sąjungos šalių narių skolos augo greitai. Didėjantis tarptautinė literatūros apie skolos poveikį ekonomikos plėtrai skaičius atskleidžia, kad šios problemos dažniausiai susiję su išsivysčiusios ekonomikos šalimis. Šio straipsnio tikslas yra dvejopas: pirmiausia, siekiama apžvelgti esamą literatūrą ir pateikti galimas išvadas naujosioms Europos Sąjungos šalims narėms. Pagrindinė šios darbo dalies išvada yra ta, kad naujosioms šalims narėms yra svarių priežasčių vengti aukšto skolų lygio dėl neigiamo jų poveikio ekonomikos augimui ir su išsiskolinimu susijusių sunkumų. Antra, buvo patikrinti visų Europos Sąjungos šalių duomenys nuo 2000 iki 2013 m. ir Vakarų Europos išsiskolinimo poveikio duomenys palyginti su pokomunistinių ekonomikų duomenimis. Gauti empiriniai duomenys parodė, kad didelis išsiskolinimas yra žalingesnis pokomunistinėms šalims. Todėl apibendrinus teorinius ir empirinius argumentus galima daryti išvadą, kad siektina vengti aukšto skolos lygio.

Reikšminiai žodžiai: valstybės skola, ekonomikos augimas, skolos lygis / riba, užsienio skola, viršijamos skolos, išsivysčiusios ir augančios ekonomikos.