

Darvas, Zsolt

Working Paper

The Impact of the Crisis on Budget Policy in Central and Eastern Europe

IEHAS Discussion Papers, No. MT-DP - 2009/24

Provided in Cooperation with:

Institute of Economics, Centre for Economic and Regional Studies, Hungarian Academy of Sciences

Suggested Citation: Darvas, Zsolt (2009) : The Impact of the Crisis on Budget Policy in Central and Eastern Europe, IEHAS Discussion Papers, No. MT-DP - 2009/24, ISBN 978-963-9796-82-9, Hungarian Academy of Sciences, Institute of Economics, Budapest

This Version is available at:

<https://hdl.handle.net/10419/108169>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

MŰHELYTANULMÁNYOK

DISCUSSION PAPERS

MT-DP – 2009/24

The Impact of the Crisis on Budget Policy in Central and Eastern Europe

ZSOLT DARVAS

Discussion papers
MT-DP – 2009/24

Institute of Economics, Hungarian Academy of Sciences

KTI/IE Discussion Papers are circulated to promote discussion and provoke comments.
Any references to discussion papers should clearly state that the paper is preliminary.
Materials published in this series may subject to further publication.

The Impact of the Crisis on Budget Policy in Central and Eastern Europe

Author:

Zsolt Darvas
senior research fellow
Institute of Economics
Hungarian Academy of Sciences,
Bruegel, Brussels
Corvinus University of Budapest
E-mail: darvas@econ.core.hu

November 2009

ISBN 978 963 9796 82 9

ISSN 1785 377X

The Impact of the Crisis on Budget Policy in Central and Eastern Europe

Zsolt Darvas

Abstract

This paper describes the particular impacts of the financial and economic crisis on Central and Eastern European (CEE) countries, studies pro-cyclicality of fiscal policies, discusses the impact of the crisis on fiscal policy, and the policy response of various governments. After drawing some lessons for fiscal policy from previous emerging market crises, the paper concludes with some thoughts on the appropriate policy response from a more normative perspective. The key message of the paper is that the crisis should be used as an opportunity to introduce reforms to avoid future pro-cyclical fiscal policies, to increase the quality of budgeting and to increase credibility. These reforms should include fiscal responsibility laws comprising medium-term fiscal frameworks, fiscal rules, and independent fiscal councils. When fiscal consolidation is accompanied by fiscal reforms that increase credibility, non-Keynesian effects may offset to some extent the contraction caused by the consolidation.

Keywords: budget policy, Central and Eastern European (CEE) countries, financial and economic crisis

JEL: C32, E62, H60

Acknowledgement: This paper was prepared for the author's keynote speech at the OECD's fifth meeting of Senior Budget Officials from Central, Eastern and South-Eastern European Countries, held on 25-26 June 2009 in St. Petersburg, Russian Federation, hosted by the Russian Ministry of Finance. The paper is to be published in the OECD Journal on Budgeting. Copyright remains with the OECD at all times.

The author is grateful to Maite de Sola for her excellent research assistance, and to country delegates at the conference for their comments and additions to the table containing budget policy measures of CESEE countries.

A pénzügyi és gazdasági válság hatása a költségvetési politikára Közép- és Kelet Európában

Darvas Zsolt

Összefoglaló

Tanulmányunk a pénzügyi és gazdasági válság Közép és Kelet Európai országokra gyakorolt speciális jellemzőit elemzi, tanulmányozza a költségvetési politika ciklikus jellemzőit, a válság hatásait a költségvetési politikára, majd az egyes kormányok reakcióit vizsgálja. Korábbi válságok költségvetési politikára gyakorolt hatásaiból levont következtetések után a tanulmány a költségvetési politika előtt álló lehetőségek normatív elemzésével zárul. A tanulmány legfőbb üzenete, hogy a válságot egy lehetőségként kell felhasználni a költségvetési rendszerek rendbetételére és olyan intézmények meghonosítására, melyek kizárják a jövőbeli pro-ciklikus költségvetési politika lehetőségét és erősítik a hitelességet. Ha a költségvetési konszolidációt olyan költségvetési reformok kísérik, amelyek növelik a hitelességet, akkor nem-Keynesianus hatások részben ellensúlyozhatják a költségvetési konszolidáció termelés csökkentő hatását.

Tárgyszavak: költségvetési politika, Közép és Kelet Európa, pénzügyi és gazdasági válság

JEL: C32, E62, H60

1. INTRODUCTION

The global economic and financial crisis is having a significant impact on all countries. However, central, Eastern, and south-Eastern Europe¹ (CESEE) has been particularly hard hit. The crisis poses a significant challenge to budget policies worldwide, and many countries, especially major economies, are relying not just on automatic stabilisers, but are responding to the crisis with discretionary fiscal stimuli and support for the financial sector. Indeed, the current economic environment would seem to call for Keynesian policies to counterbalance both domestic and foreign demand shortages.

CESEE countries face significant budgetary challenges. Most have very limited fiscal policy options. Many of them face significant financing constraints, are small and open, have generally lower-quality fiscal institutions than major economies, and should respect investors' confidence. Although public debt relative to GDP is considerably lower in most CESEE countries than in major economies, markets' tolerance for public debt in emerging and developing countries is much lower.

The purpose of this paper is to discuss the particular characteristics of the crisis in CESEE countries and the crisis's impact on budget policy. We argue that financial linkages and, in particular, large current account deficits financed by external sources, as well as heavy reliance on foreign trade and, in some countries, inflows of remittances, were the major channels through which the crisis hit these countries. However, budgetary policy also played a role: according to our econometric estimates budget policy was pro-cyclical in many CESEE countries, reinforcing the business cycle both during the good years before the crisis and during the current crisis as well. While some bigger countries in the region have some space for discretionary stimulus, most countries do not; instead, many countries should embark on significant fiscal consolidation.

A key message that emerges from this paper is that the crisis should be used as an opportunity to accelerate the process of structural reform including fiscal reforms. With proper fiscal consolidation and reforms, non-Keynesian effects may offset to some extent the contraction caused by fiscal consolidation, and CESEE countries may be better positioned for post-crisis growth than major economies, though it is unlikely that the pre-crisis fast growth rates will return.

¹ This paper analyses 26 countries of central, Eastern, and south-Eastern Europe: 12 central European and Baltic members of the EU (Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovak Republic, Slovenia), the seven European CIS countries (Armenia, Azerbaijan, Belarus, Georgia, Moldova, Russian Federation, Ukraine), five non-EU countries of former Yugoslavia (Bosnia and Herzegovina, Croatia, FYR Macedonia, Montenegro, Serbia; data for Kosovo is not available), and Turkey and Albania.

This paper is organised as follows. Section 2 discusses the severity of the crisis for CESEE economies and the particular characteristics of these economies that made them vulnerable. Section 3 studies the direct role of budget policy in relation to the severity of the crisis by analysing the pre-crisis pro-cyclicality of budget policy using structural vector-autoregressions. This is followed, in Section 4, by a discussion of the main channels through which the crisis impacts budget policy. Section 5 gives a presentation of the policy reactions of various governments. Section 6 draws some lessons for budget policy from previous emerging market crises. Finally, Section 7 concludes with some thoughts on the appropriate budget policy from a more normative perspective. The appendix details for all 26 CESEE countries the budget measures taken in response to the crisis.

2. THE CRISIS IN CESEE COUNTRIES

2.1 SEVERITY OF THE CRISIS: MORE SERIOUS THAN IN OTHER REGIONS

CESEE countries have been hit severely by the crisis, though there are significant differences within the region. Before the crisis, i.e. up to 2007, CESEE countries seemed to be catching-up with the EU-15 quickly and reasonably smoothly; this was reflected in forecasts made at that time (*Figure 1*). For example, in October 2007, cumulative GDP growth from 2008 to 2010 was forecast to be 11.4 percent on average in the region, while, by comparison, the EU-15 was predicted to grow by 4.3 percent during these two years. Some CESEE countries had built up various vulnerabilities, such as huge credit, housing and consumption booms and thus high current account deficits and external debt. It was widely expected that these vulnerabilities would have to be corrected at some point in time. However, the magnitude of the correction, as also reflected by the fall in GDP, was amplified by the global financial and economic crisis.

Figure 1 indicates that there were substantial downward revisions in economic growth forecasts from October 2007 to October 2009 in all countries. The 2010 GDP level of the CESEE country group was in October 2009 forecast to be 14.8 percent lower than was expected in October 2007.² Downward revision in other emerging and developing country groups has been smaller, ranging from 3.3 percent (average of 48 African countries) to 6.9 percent (average of 25 Asian countries excluding China³). CESEE countries not only had to assume the largest downward revision of their forecast GDP level, but the actual fall in GDP is also expected to be the greatest among emerging and developing country groups. The average GDP

² In our view comparison to a benchmark, ie, the downward revision of in the forecast level of GDP at a future date, is a better measure of the severity of the crisis than the actual fall in GDP. For example, zero growth has a different meaning for a country that has been used to grow and was expected to continue to grow in the future by two percent per year, than for a country in which these numbers are six percent per year. Nevertheless, we also show and discuss actual changes in GDP.

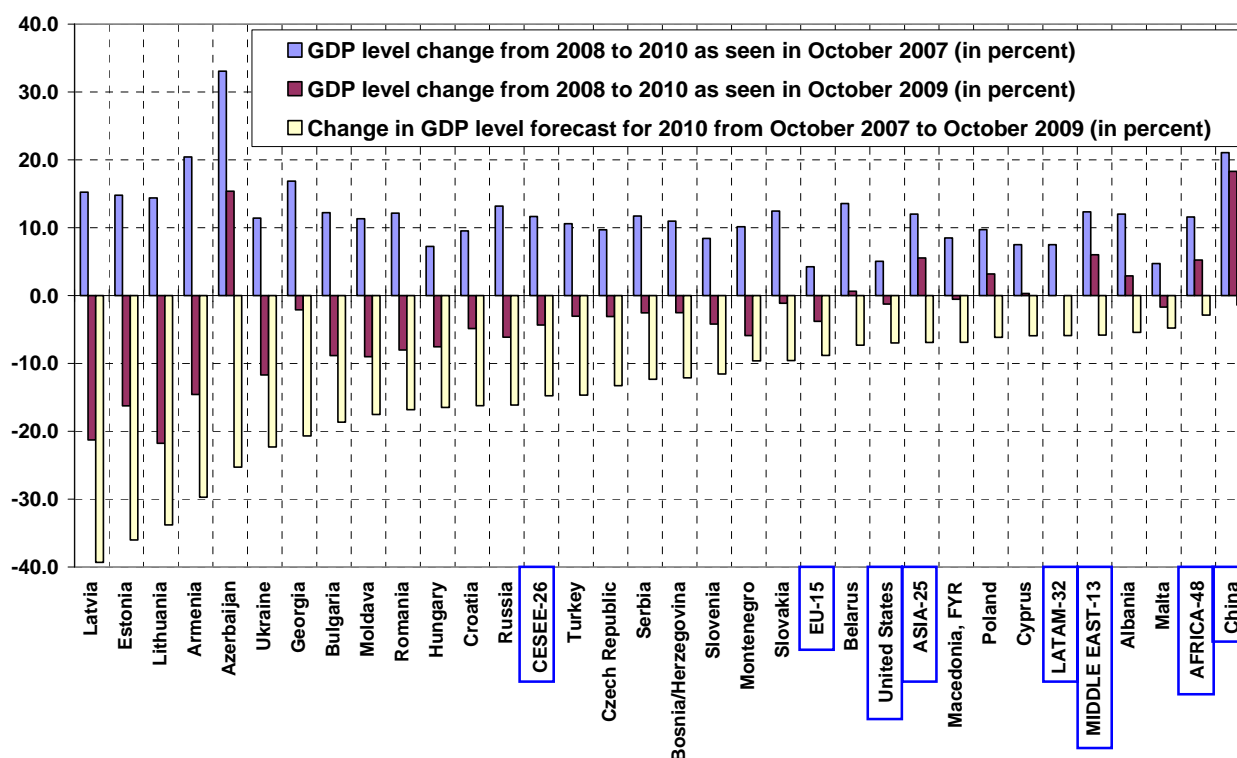
³ China is included separately in *Figure 1*.

change in the 26 CESEE countries from 2008 to 2010 was forecast in October 2009 to be minus 4.3 percent. Meanwhile the 25 Latin American countries were expected to maintain their GDP level, and the 25 Asian countries, and the 48 African countries and the 13 Middle East countries were expected to grow by between 5.2 percent and 6.0 percent during the same period.

The three Baltic countries were hit the most seriously with GDP projected to fall between 16 and 22 percent from 2008 to 2010, according to October 2009 forecasts. Forecasts made in 2007 foresaw growth of about 15 percent during the same period. Furthermore, growth in 2008 was -4.6 percent in Latvia and -3.6 percent in Estonia and hence the total output fall experienced by these countries will be even larger than the forecasts for 2009 and 2010 would imply. The downward revision of the 2010 GDP level is between 34 and 39 percent for the three countries.

Figure 1

GDP growth as seen in October 2007 and October 2009



Source: Author's calculation based on data from DG ECFIN and IMF.

Note. October 2007 forecast for EU member states: DG ECFIN 2007 Autumn forecasts for 2007-2009; the 2010 forecast was calculated by us assuming that GDP growth in 2010 will be equal to the average growth during 2001-2009 (including the forecasts for 2007-2009). October 2007 forecast for non-EU countries: IMF World Economic Outlook October 2007 for 2007-2009; the 2010 forecast was calculated by us assuming that GDP growth in 2010 will be equal to the average growth during 2001-2009 (including the forecasts for 2007-2009). October 2009 forecast for all countries: IMF World Economic Outlook October 2009 for 2009-2010.

Country group values are weighted averages (using GDP weights). CESEE-26: 26 countries from Central, Eastern, and South Eastern Europe. ASIA-25: 25 countries from Asia excluding China. LATAM-32: 32

countries from Latin America. MIDDLE EAST-13: 13 countries from the Middle East. AFRICA-48: 48 countries from Africa. Country groups and non-CESEE countries are highlighted with squares. Note that the sum of the first and the third column does not equal the second, partly because the sum of two percentages does not equal the total percent effect, and partly because the October 2007 forecast level of the 2010 GDP also reflected forecasts for 2007-2008, while the October 2009 forecast is based on actual data for 2007-2008.

2.2 WHY WERE CESEE COUNTRIES THE HARDEST HIT AMONG EMERGING / DEVELOPING REGIONS?

The sensitivity of CESEE countries to the crisis is mainly due to three factors:

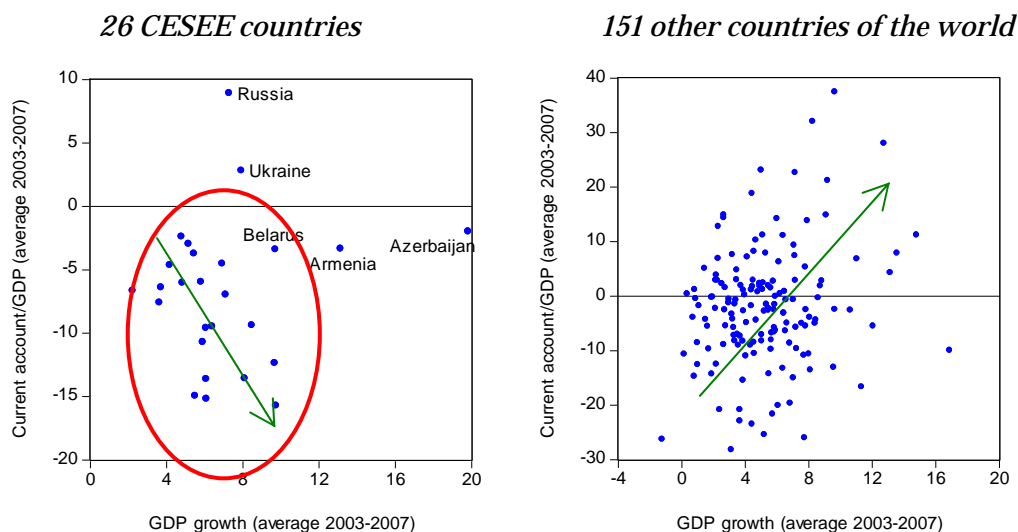
1. Capital flows and financial integration
2. Dependence on foreign trade
3. Migration and remittances

Darvas and Veugelers (2009) demonstrate that foreign trade played a crucial role in the pre-crisis economic growth of CESEE countries, and that their dependence on foreign trade is greater than many other emerging and developing countries. Remittances are also very important for some countries: Moldova (34 percent of GDP in 2007), Bosnia/Herzegovina (17 percent), Armenia (14 percent), Albania (13 percent), Georgia (seven percent), Bulgaria & Romania (five percent), and between two and four percent for eight further CESEE countries. In this section of the paper, however, we concentrate on issues related to capital flows and financial integration.

In general, CESEE countries entered the crisis more vulnerable than other emerging regions, although there are considerable differences within the region. A key feature of these countries is that their pre-crisis growth was associated with rising current account deficits (with the exception of commodity exporters), that is, the correlation between GDP growth and the current account was negative, as the left-hand panel of *Figure 2* indicates. In contrast, correlation was positive in other emerging and developing countries as suggested by the right-hand panel of *Figure 2*.

Figure 2

GDP growth and the current account, 2003-2007



Source: author's calculation based on IMF data.

Why does the correlation between the current account (CA) and economic growth differ? As discussed by, eg. Prasad, Rajan and Subramanian (2006) and Collins (2006), the positive correlation in developing countries could be related to three main mechanisms.

- A demographic shift to reduce the old age dependency ratio increases the labour force, which increases both savings and output, leading to a positive correlation between CA and growth.
- A productivity shock leads to higher income, but financial impediments limit investment and consumption, which again could lead to a positive correlation.
- A policy shift to export promotion, for example the avoidance of exchange rate overvaluation, boosts exports and output leading to a better CA position and higher growth.

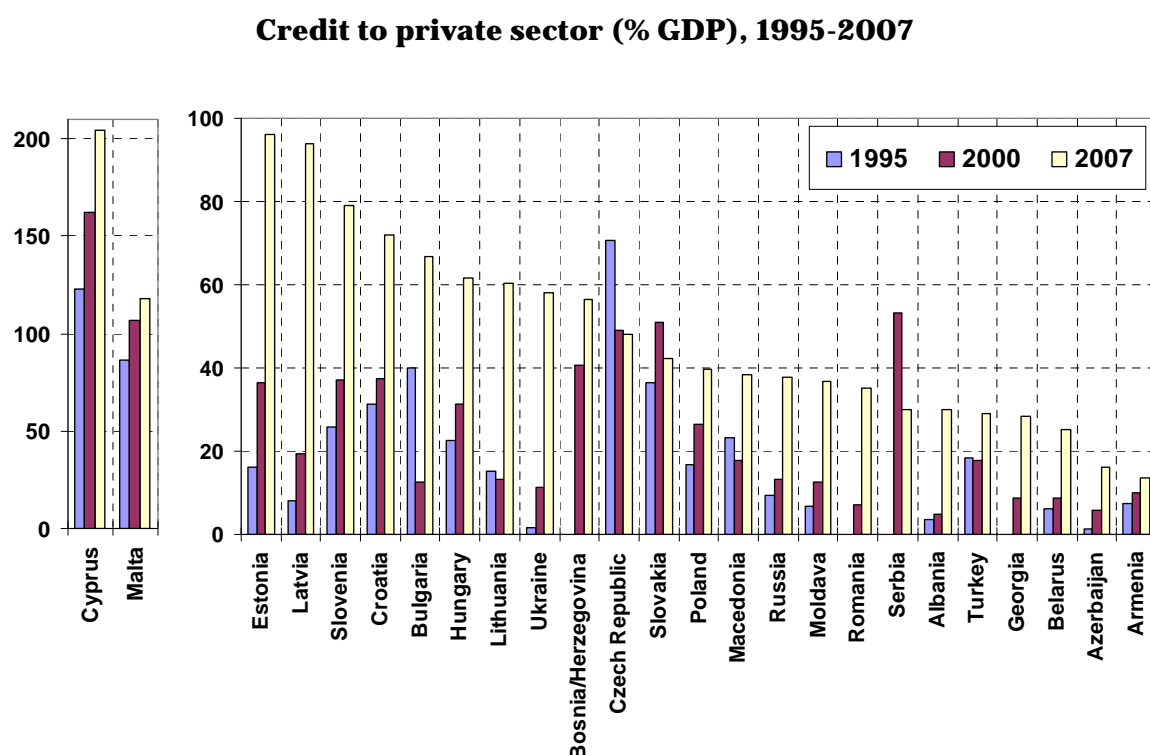
On the other hand, the negative correlation observed for CESEE countries may be related to an institutional change (relaxation of previous constraints in accessing foreign capital) and a productivity shock.

- With the prospective and actual EU integration of ten former communist countries and with the better EU prospects of many other CESEE countries, the previous constraints in accessing foreign capital have relaxed or eased substantially. This has led to capital inflows, which in turn contributed to investment, but also to consumption booms and, eventually, current account deficits.
- At the same time, and also related to capital inflows, productivity increased rapidly in most CESEE countries, leading to higher income expectations. This in turn

resulted in borrowing according to the textbook mechanism of intertemporal optimisation.

Indeed, capital inflows and GDP growth were accompanied by a substantial growth in credit (*Figure 3*). For example, the private sector credit to GDP ratio was 20 percent in Latvia in 2000, rising to almost 100 percent of GDP by 2007. In the meantime, GDP also grew by about 10 percent per year in real terms on average.⁴

Figure 3



Source: author's calculation based on IMF data.

Since the banking system has a crucial role in financing CESEE economies, its stabilisation must be a high priority. The key question is the role played by the budget in the previous credit boom and in the stabilisation of the banking system now. The previous credit boom was mainly related to the private sector and the ratio of government debt to GDP was generally low in the region (*Figure 4*). Budget deficits varied, fiscal policy was pro-cyclical in many countries (see the next section of the paper), but in general the budget was not a serious problem (apart from some outliers like Hungary). Many authors even called for an active use of budget policy due to the large infrastructure investment needs of these countries, rather than for saving for rainy

⁴ See Darvas and Szapáry (2008) for further details on capital inflows and credit growth in the EU member CESEE countries.

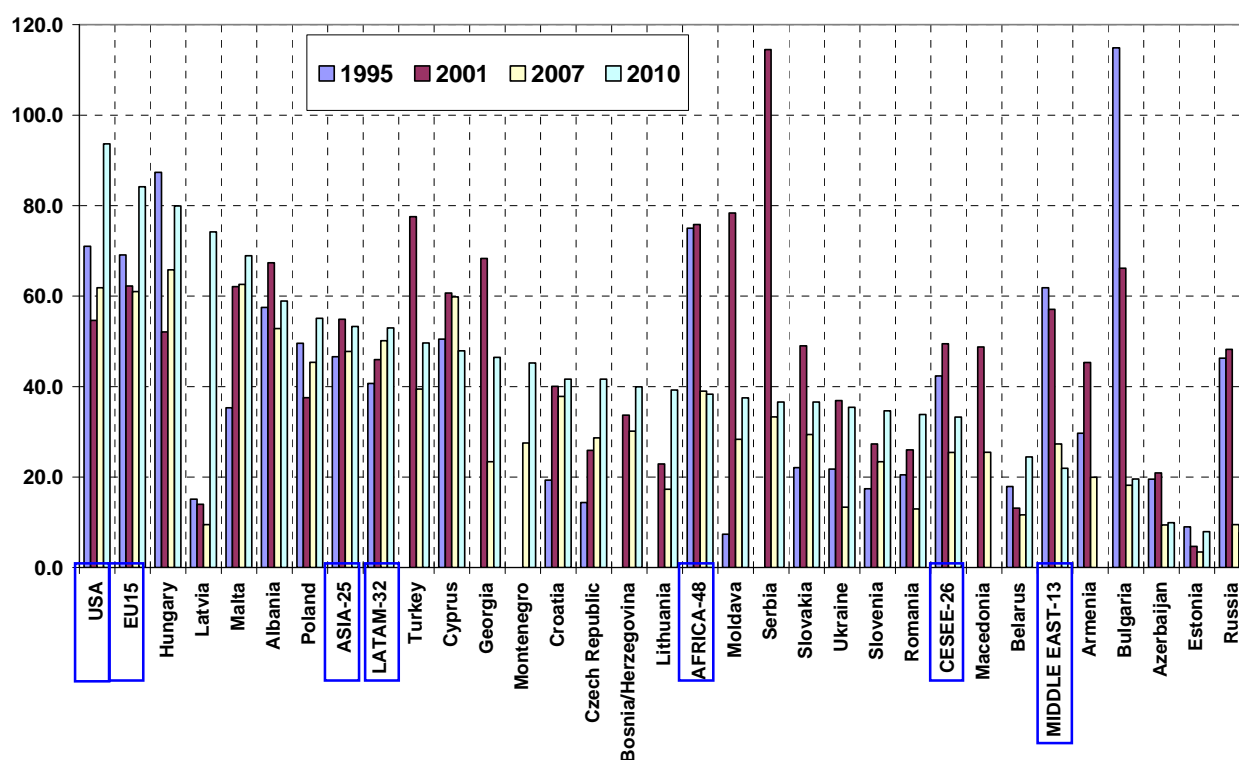
days. With the benefit of hindsight we of course know now that budget policy should have been more conservative during the good times.

There is unpleasant asymmetry regarding the banking system: it was the private sector that incurred most of the debt, but the public sector has to adjust substantially and clean up the mess now.⁵ This asymmetry is similar to the Stability and Growth Pact's failure (with its narrow focus on budgets) to preserve euro area's stability.

These factors call for strengthened regulation and supervision, as well as creation of institutions for anti-cyclical budget policies.

Figure 4

General government gross debt (% GDP), 1995-2010



Source: Eurostat, EBRD, DG ECFIN of the EC, IMF. 2010 forecasts are from the IMF (October 2009). 2010 forecast for Armenia and Macedonia (FYR) is not available. See country group definitions at the note to *Figure 1*.

Note. Countries are ordered according to their 2010 debt level.

Despite the low level of government debt, credit-default swaps on government bonds (which is a measure of the cost of insurance against government default) have increased substantially (*Figure 5*). The huge rise in government default probability on the one hand, and the low level of government debt on the other, are puzzling. Furthermore, credit default swaps

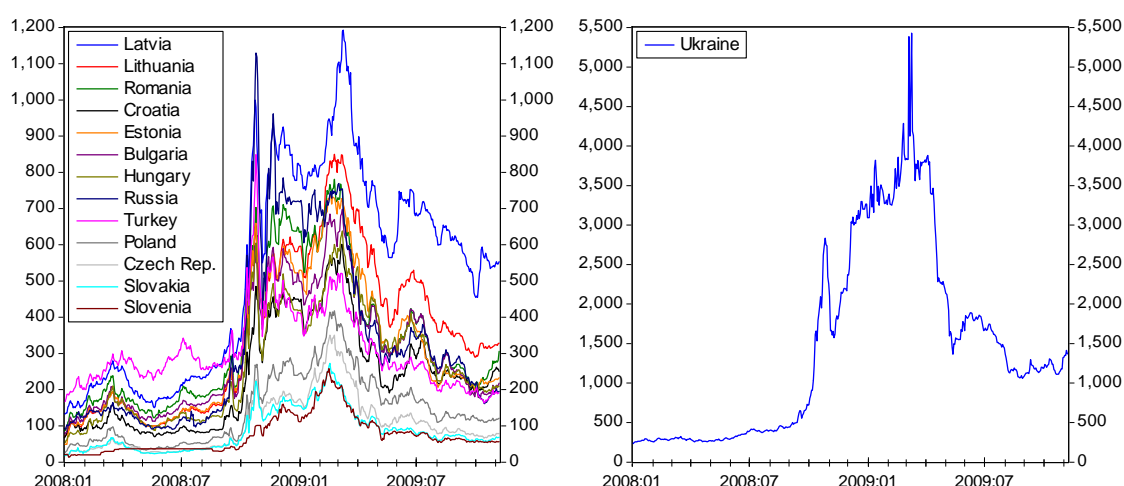
⁵ For example, Latvia is trying to implement heroic efforts to cut the budget deficit in the context of a GDP fall of about 15%-20% in a single year.

on government bonds do not relate to the general government debt/GDP ratio (left hand side panel of *Figure 6*).

The most likely solution to this puzzle could be related to the risk inherent in *private sector* debt in many countries, which is (in some countries) held mostly in foreign currencies. The magnitude of the eventual bank losses is still highly uncertain, and in countries where foreign banks are prevalent, burden-sharing is an issue. Should the economic outlook deteriorate further, and/or the exchange rate collapse (e.g. Baltics), or fall further (e.g. Ukraine, Hungary), then even deeper economic crises may emerge that could lead to more bankruptcies, unmanageable bank losses and the complete drying up of foreign capital. These factors may end in a government default, despite the low level of government debt.

Figure 5

**Credit default swap on 5-year government bonds
2 January 2008 – 6 November 2009**

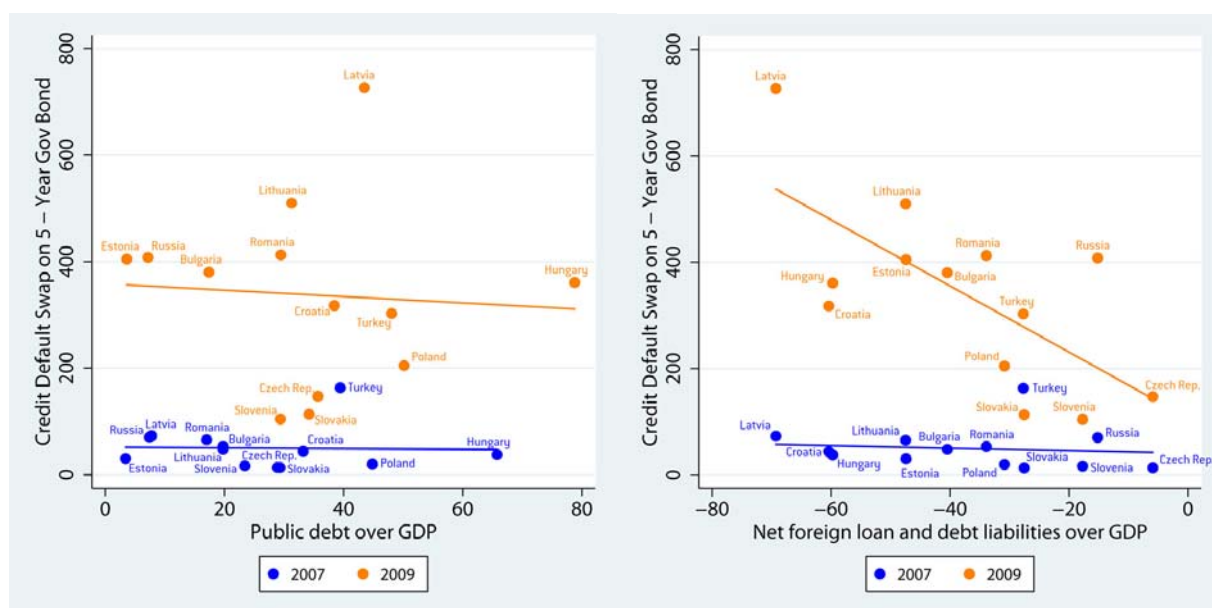


Source: Datastream.

Indeed, government default risk is now related to external indebtedness defined as net foreign loan and debt liabilities (right hand side panel of *Figure 6*). It is noteworthy that before the crisis the cost of insurance against government default was not related to external indebtedness. This suggests that risk pricing was done incorrectly before the crisis.

Figure 6

The relation of credit default swap on government bonds to public debt and net foreign loan and debt liabilities



Source: Author's calculation based on IMF and Datastream data. Note. 2009 CDS refers to the average between 2 January and 27 October 2009. Public debt refers to general government gross debt. Net foreign loan and debt liabilities refer to the whole economy.

3. CYCLICALITY OF BUDGET POLICY IN CESEE COUNTRIES

A growing empirical literature demonstrates that fiscal policy in emerging and developing countries tends to be pro-cyclical, while it is a-cyclical or counter-cyclical in most developed countries. A pro-cyclical budget policy amplifies both the boom and the bust phases of the economic cycle. During the boom period the amplifying effect contributes to the build-up of vulnerabilities both directly and indirectly. It also has an impact if the faster economic growth that results from the pro-cyclical budget policy induces agents to expect a brighter future and consequently to borrow against their expected future income. During the bust period the pro-cyclical fiscal policy required by e.g. the external financial constraints, amplifies again the effect of the downturn. Kaminsky, Reinhart and Vegh (2004) have coined this phenomenon as “when it rains, it pours”. It can not be optimal from any theoretical perspective to reinforce the business cycle by expanding budget policy in good times and contracting it in bad times (see Ilzetzki and Vegh, 2008, for further discussion).

Consequently, analysing the cyclical nature of budget policy may shed light on whether or not budget policy in CESEE countries also contributed to the severity of the crisis by amplifying the economic cycle during good times. It is instructive to start the analysis with some simple correlation measures that may hint at pro-cyclicality, and then to continue with a structural analysis.

3.1 CORRELATION OF OUTPUT AND GOVERNMENT CONSUMPTION USING ANNUAL DATA

Table 1 reports the correlation coefficient between annual real GDP and real government consumption⁶ growth in four different time periods. The sample starts either in 1995 or in 2001 and ends either in 2007 or in 2010, where available. Extending the sample to 2010 (with available forecasts) provides an indication of how the current crisis affects the correlation. Starting the sample in 2001 instead of 1995 eliminates the period of the Russian crisis that affected many other CESEE countries. Some earlier country specific crises are also eliminated (e.g. Bulgaria, Czech Republic, Romania, and Slovak Republic). Furthermore, the transitional recession lasted till the late 1990s in the case of many CIS countries and hence the 2001 sample starting point implies a more homogenous time period.

The general result for developed countries shown in the last eight rows of the table is a close to zero or negative correlation, regardless of the sample period considered. Hence, the simple correlation coefficient confirms the a-cyclical or counter-cyclical budget policy finding that is found as a result of more structural analysis in the literature.

In contrast, the general result for many CESEE countries is a positive correlation suggesting pro-cyclicality, though there are exceptions. Results for some CESEE countries are different for different time periods, which make us cautious when interpreting the results.

Considering the 1995-2007 period, a negative or positive but close to zero correlation was found for the following countries: Cyprus, Czech Republic, Estonia, Romania, Slovenia, Croatia, Azerbaijan, and Georgia. The correlation for Turkey, the Russian Federation, Poland, Latvia, Albania, and the Slovak Republic was positive but not large. Large positive correlations were observed for Bulgaria, Hungary, Lithuania, Armenia, Belarus, Moldova and Ukraine.

⁶ It is preferable to use government consumption rather than eg. government expenditures or balance, for studying the pro-cyclical nature of budget policy, because these latter indicators are strongly influenced by the business cycle (eg. through transfers, debt service and tax revenues), while government consumption is a more direct policy tool. See Kaminsky, Reinhart and Vegh (2004) for a detailed discussion.

Table 1

Correlation of annual real GDP and real government consumption growth

	1995-2007	1995-2010	2001-2007	2001-2010
Bulgaria	0.81	0.77	-0.25	0.29
Cyprus	-0.54	-0.35	-0.37	-0.20
Czech Republic	-0.21	-0.08	-0.59	-0.11
Estonia	-0.18	0.14	-0.23	0.54
Hungary	0.81	0.62	0.92	0.62
Latvia	0.30	0.45	0.84	0.91
Lithuania	0.69	0.83	0.13	0.90
Malta	n.a.	n.a.	-0.01	0.24
Poland	0.27	0.56	0.59	0.78
Romania	0.09	0.24	-0.65	0.28
Slovenia	-0.26	0.03	0.04	0.23
Slovak Republic	0.43	0.40	-0.10	0.12
Albania	0.40	n.a.	0.41	n.a.
Croatia	-0.03	0.04	0.67	0.27
Macedonia FYR	n.a.	n.a.	-0.64	-0.55
Turkey	0.17	0.24	0.56	0.50
Russia	0.24	n.a.	0.57	n.a.
Armenia	0.57	n.a.	0.40	n.a.
Azerbaijan	-0.15	n.a.	-0.29	n.a.
Belarus	0.76	n.a.	-0.29	n.a.
Georgia	-0.04	n.a.	-0.35	n.a.
Moldova	0.76	n.a.	0.71	n.a.
Ukraine	0.78	n.a.	-0.37	n.a.
Euro area 12	0.04	-0.08	-0.06	-0.03
Denmark	0.23	0.20	0.18	-0.08
Sweden	0.05	0.02	0.03	0.07
United Kingdom	-0.09	-0.38	-0.03	-0.46
Switzerland	-0.26	-0.17	-0.55	-0.21
Norway	-0.12	-0.55	-0.21	-0.63
Japan	-0.01	0.24	-0.62	0.13
United States	-0.34	-0.69	-0.70	-0.77

Source: Author's calculation.

Note. Data for Bosnia & Herzegovina, Montenegro, and Serbia is not available.

If only the 'good times' of 2001-2007 are considered, the results change for several CESEE countries. Correlation increases substantially compared to the 1995-2007 period in Latvia, Croatia, Poland, Turkey, and the Russian Federation. There are also countries in which correlation in 2001-2007 is substantially lower than in 1995-2007: Bulgaria, Lithuania,

Romania, the Slovak Republic, Belarus and Ukraine. Data for Malta is available for 2001-2007 which indicates a zero correlation.

Including the recent crisis in the sample period generally increases the finding of positive correlation for CESEE countries. For example, among the EU member states for which forecasts up to 2010 are available, the correlation coefficient rises substantially in the cases of Lithuania and Estonia, and to a lesser extent for Bulgaria, Malta, Romania and Slovenia, leaving only Cyprus and the Czech Republic with negative correlations, and the Slovak Republic with a small positive correlation.

To sum up, although there are important country specific differences (eg. Cyprus and the Czech Republic were found to have negative correlations in all sample periods), many CESEE countries indicates a positive correlation between GDP and government consumption, in at least one of the sample periods we studied. In contrast, the correlation is close to zero or negative in developed countries, irrespective of the time period studied.

3.2 STRUCTURAL VECTOR-AUTOREGRESSIONS USING QUARTERLY DATA

As highlighted by e.g. Ilzetzki and Vegh (2008) a positive correlation between GDP and government consumption does not imply causality. Pro-cyclicality would require a causal effect from GDP growth to government consumption growth. However, a positive correlation between the two variables may be the result of a causal effect from government consumption to GDP, ie. the expansionary effect of government consumption. Following Blanchard and Perotti (2002) and Ilzetzki and Vegh (2008) we employ structural vector-autoregressions (SVAR) to identify the effects of output shocks on government consumption using quarterly data. The model has the following form:

$$\mathbf{A}_0 \mathbf{y}_t = \sum_{i=1}^p \mathbf{A}_i \mathbf{y}_{t-i} + \sum_{j=0}^q \mathbf{B}_j \mathbf{x}_{t-j} + \boldsymbol{\varepsilon}_t ,$$

where \mathbf{y}_t is the vector of output and government consumption, which are assumed to be endogenous, \mathbf{x}_t is the vector of exogenous variables, $\boldsymbol{\varepsilon}_t$ is the vector of orthogonal structural shocks, \mathbf{A}_0 is the contemporaneous impact matrix, \mathbf{A}_i and \mathbf{B}_j are parameter matrices. Our sample period covers quarterly data between the first quarter of 1995 and the first quarter of 2009, where available (Box 1 below details data availabilities).⁷ A few key assumptions have to be made for the use of the SVAR.

⁷ Quarterly data before 1995 is generally not available for CESEE countries, but even if available, it is likely burdened with substantial structural changes. Still, our sample starting in 1995 may also

Identification of shocks: Following Blanchard and Perotti (2002) and Ilzetzi and Vegh (2008) we assumed that an unexpected shock⁸ to GDP does not have a contemporaneous effect on government consumption, but an unexpected shock to government consumption may affect GDP contemporaneously.

Measurement of variables: In contrast to Ilzetzi and Vegh (2008) who de-trended GDP and government consumption using linear and quadratic trends before making estimates, we included the variables in log-levels. There are various de-trending methods adopted in the literature, and empirical results might depend on the specific filter adopted, as demonstrated in Canova (1998). Estimates for the levels, however, is consistent irrespective of whether or not there is a co-integrating relationship among the variables, though in small samples the estimate may be biased.

Exogenous variable(s): We include only one exogenous variable, the weighted average of EU15, US, Russian and Japanese GDP. The weights are proportional to trade weights. We did not include all trading partners in the weighted foreign GDP for reasons of endogeneity. For example, the Czech Republic and the Slovak Republic have substantial bilateral trade relations, but, eg, GDP development in the Slovak Republic is likely not exogenous to GDP movements in the Czech Republic. In contrast, GDP developments in EU15, US, Russian Federation and Japan can be regarded as exogenous with respect to economic developments in CESEE countries. These four main economic regions represent, on average, 67 percent of total trade of the 26 CESEE countries, and hence the bulk of external demand is captured.

Lag length: We used Schwarz information criterion to determine the lag length.⁹

Figure 7 shows the response of government consumption to an unanticipated GDP shock for the 20 CESEE countries for which quarterly data is available. The results are broadly consistent with our earlier findings shown in *Table 1*. With a few exceptions, government consumption reacted positively to unexpected GDP shocks. The most pro-cyclical budget policy was observed in Hungary: a one percent positive GDP shock caused a more than three percentage point rise in government consumption at the two-year horizon, according to the point estimate, though the confidence band is very wide. The positive effect is sizable in many other countries as well. The key exceptions are Croatia (which is found to be a-cyclical), the Czech Republic and Estonia (in which the point estimates of the impulse responses are very close to zero with a wide confidence band), Cyprus (which shows an initial counter-cyclical

include structural breaks due to, for example, changes in fiscal policy regimes, which would necessitate time-varying parameter SVARs. This issue is left for further research.

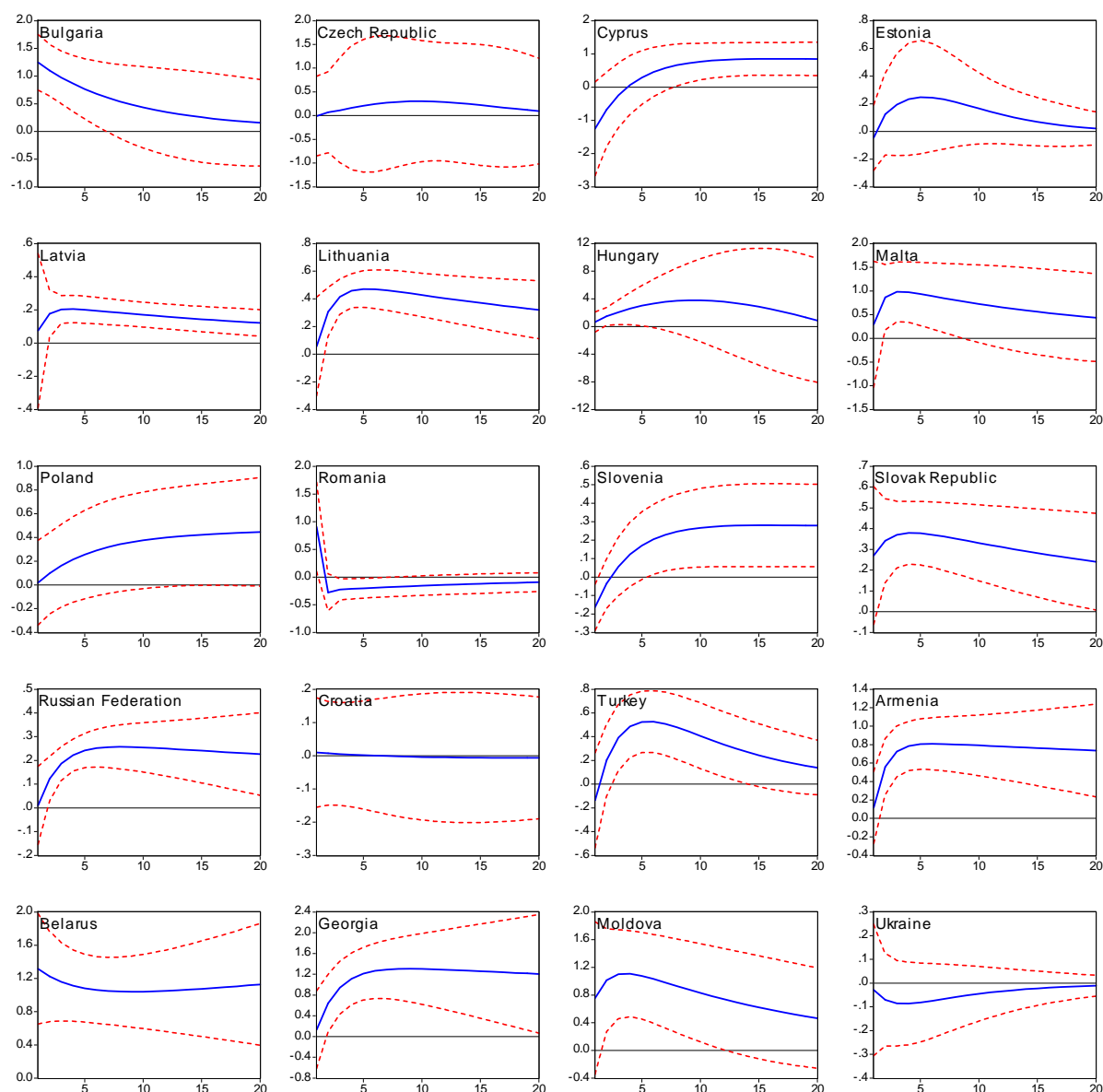
⁸ Note that impulse response functions in VARs measure the effects of unanticipated shocks.

⁹ In the case of Poland the Schwarz information criterion suggested two lags. However, with two lags the estimated model turned out to have an unstable root, and the impulse response functions became explosive. We therefore used only one lag for Poland.

reaction followed by a delayed pro-cyclicality at about 1.5 years after the shock¹⁰), and Romania (in which a contemporaneous pro-cyclical impact is followed by a small and insignificant counter-cyclical response).

Figure 7

Response of government consumption to a one percentage point shock in GDP



Note. The panels show the response of government consumption to a one percentage point shock in GDP as a function of the time (measured in quarters) after the shock. Dashed lines represent \pm two standard deviations confidence band. The sample period for each country is detailed in Box 1. Data for Albania, Azerbaijan, Bosnia & Herzegovina, Macedonia FYR, Montenegro, and Serbia is not available.

¹⁰ Using a panel of developed countries, Ilzetzki and Vegh (2008) also found such a pattern.

Box 1: Data sources and availability for the empirical estimates

We aimed to collect seasonally and working day adjusted quarterly GDP and government consumption figures at constant prices for the 1995Q1-2009Q1 period. The table below details our data.

Country	Availability	Source	Note
Bulgaria	1995Q1-2009Q1	Eurostat (only raw data –not seasonally and working day adjusted– is available)	Seasonal adjustment by us using the Census X12 method
Cyprus	1995Q1-2009Q1	Eurostat	
Czech Republic	1996Q1-2009Q1	Eurostat	
Estonia	1995Q1-2009Q1	Eurostat	
Hungary	1995Q1-2009Q1	Eurostat	
Latvia	1995Q1-2009Q1	Eurostat	
Lithuania	1995Q1-2009Q1	Eurostat	
Malta	2000Q1-2009Q1	Eurostat	
Poland	1995Q1-2009Q1	Eurostat	
Romania	1998Q1-2009Q1	Eurostat (only raw data –not seasonally and working day adjusted– is available)	Seasonal adjustment by us using the Census X12 method
Slovenia	1995Q1-2008Q4	Eurostat	
Slovak Republic	1995Q1-2009Q1	Eurostat	
Croatia	1997Q1-2009Q1	Eurostat (only raw data –not seasonally and working day adjusted– is available)	Seasonal adjustment by us using the Census X12 method
Turkey	1995Q1-2009Q1	Central Statistical Office of Turkey (only raw data –not seasonally and working day adjusted– is available at different years' prices: series at 1987 prices is available for 1987-2007; series at 1998 prices is available for 1998-2009)	We first performed seasonal adjustment using the Census X12 method of the times series available at 1987 and 1998 years' prices and then combined them into single time series
Russian Federation	1995Q1-2009Q1	Federal State Statistics Service of the Russian Federation (only raw data –not seasonally and working day adjusted– is available at different years' prices)	We combined into single time series the data available at different years' prices and then adjusted seasonally with the Census X12 method
Armenia	1995Q1-2009Q1	IMF – IFS: unadjusted nominal national accounts figures and CPI	We deflated nominal figures with the CPI and then adjusted seasonally with the Census X12 method
Belarus	1995Q1-2008Q4	IMF – IFS: unadjusted real GDP, nominal government consumption, and GDP deflator	We deflated government consumption with the GDP deflator and then adjusted seasonally along with the GDP with the Census X12 method
Georgia	1996Q1-2008Q4	IMF – IFS: unadjusted real GDP, nominal government consumption, and CPI.	We deflated government consumption with the CPI and then adjusted seasonally along with the GDP with the Census X12 method
Moldova	2000Q1-2009Q1	IMF – IFS: unadjusted nominal national accounts figures and CPI	We deflated nominal figures with the CPI and then adjusted seasonally with the Census X12

Why would most CESEE countries, in contrast to developed countries, pursue a pro-cyclical fiscal policy that might exacerbate the business cycle? Based on an extensive literature review concerning fiscal policy in developing countries, Ilzetzi and Vegh (2008) conclude that there are two main explanations:

- (1) imperfections in international credit markets prevent developing countries from borrowing in bad times;
- (2) political economy explanations typically based on the idea that good times encourage fiscal profligacy and/or rent-seeking activities.

As far as imperfections in international credit markets are concerned, further integration of CESEE countries into the EU could ease this problem. However, as the cases of Hungary and Greece underline, it is euro-area membership that makes a difference. Both countries are members of the EU but only Greece is member of the euro area. While the main fundamentals were worse in Greece than in Hungary, Greece has fared much better than Hungary in the current crisis.¹¹

On the other hand, many CESEE countries also pursued pro-cyclical policies in good times when credit from foreign sources was abundant. Consequently, political economy factors may be highly relevant in explaining the pro-cyclical budgetary policies of these countries.

We return to the issue of euro-area entry and the need for improvements in budgetary governance in the final section of this paper.

¹¹ For example, Greece has had much higher government debt and a much higher current account deficit (as a percentage of GDP) than Hungary in the past few years. Despite the differences in these two fundamental vulnerability indicators, Hungary experienced serious speculative attacks on its currency and government bond markets, and had to rely on a multilateral financial assistance programme, while tensions in Greece were milder. Hungary's current account deficit is expected to shrink from six percent of GDP in 2007 to three percent of GDP in 2009 and 2010, while Greece is still expected to have a current account deficit in excess of 11 percent of GDP both in 2009 and in 2010, according to the October 2009 forecasts of the IMF. The government debt-to-GDP ratio is also expected to remain much higher in Greece than in Hungary. In June 2009 the spread over German 10-year government bond was 186 basis points for Greece and 668 basis points for Hungary.

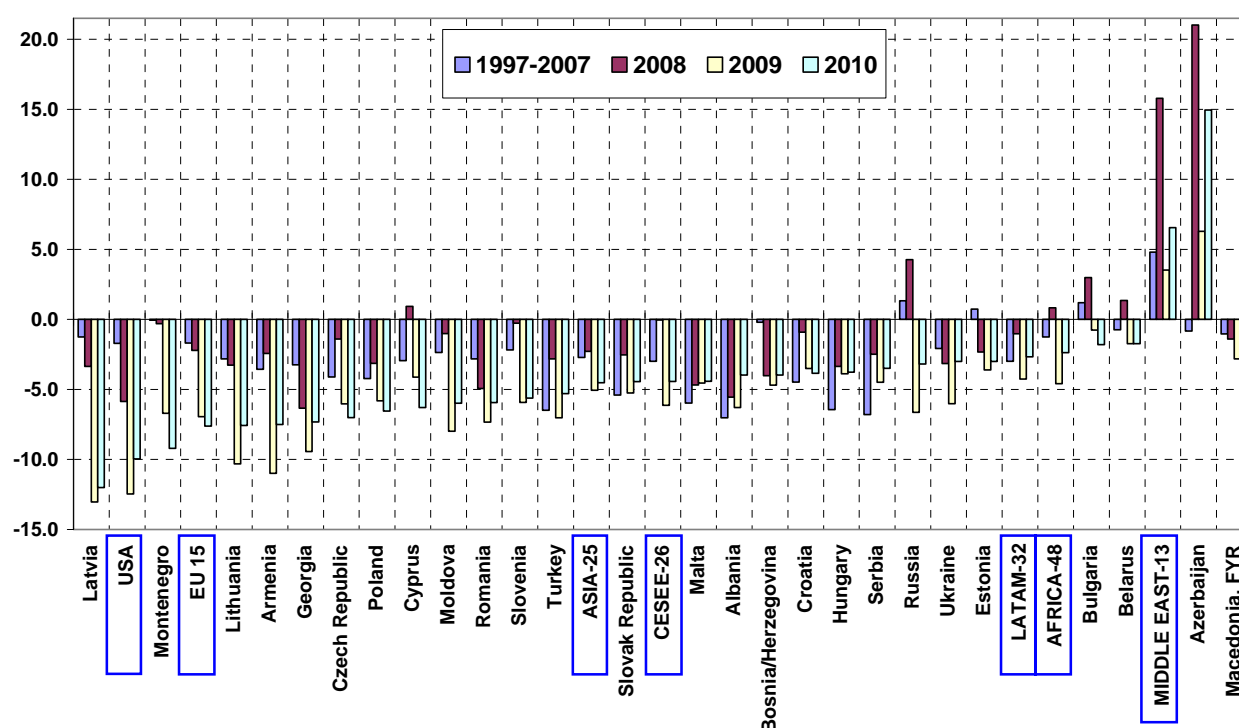
While macroeconomic indicators were in many cases better for Hungary than Greece, Hungary was still one of the weakest among the new EU member states, and hence it was not surprising that Hungary was the first to turn to the IMF for emergency financing. Our calculations indicate that Hungarian fiscal policy was the most pro-cyclical among the 26 CESEE countries, and government debt was also the highest in 2007 (*Figure 4*). Government expenditure (as a percentage of GDP) was also the highest in Hungary and not just because of higher interest spending. By using a proper method to compare government expenditures in four new EU member states, Kiss and Szemere (2009) conclude that the Hungarian government spends considerably more than its neighbours.

4. THE IMPACT OF THE CRISIS ON BUDGET POLICY: MAIN CHANNELS

The crisis has through various channels had a significant impact on the budget policy of all countries, including CESEE countries. However the strength of certain channels varies across countries according to their specific circumstances. *Figure 8* indicates the headline budget deficit numbers for CESEE countries in comparison to some major economies. Budget deficits outcomes are rather diverse and are related to a large number of factors, to be discussed later.

Figure 8

General government budget balance (% GDP), 1997-2010



Source: Eurostat, EBRD IMF WEO (October 2009). 2009 forecast for Macedonia FYR is from the EBRD (Spring 2009); forecast for 2010 is not available.

Note. Countries are ordered according to their 2010 balance (except Macedonia FYR).

From the perspective of most CESEE countries, the impact of the crisis can be summarised as (1) a significant revenue shortfall, (2) changes in the global economic environment that have led to external financial constraints and less growth in main export destination markets, and (3) a significant change in the medium/long term outlook.

4.1 DIRECT FISCAL IMPACT

The most serious impact of the crisis on budget policy has been felt on the revenue side. With declining economic activity, all kinds of tax revenues decline. Progressive income taxes and corporate taxes act as automatic stabilisers, as do unemployment and other welfare benefits. In addition, countries that have scope may engage in discretionary fiscal stimulus programmes to boost domestic demand. We believe that the current economic environment is a classical Keynesian situation that would in principle demand such discretionary policies. However, as we will discuss in more detail in Section 5 both the desirability of and the scope for such actions fundamentally depend on the circumstances of individual countries, such as their size and openness, the credibility and strength of fiscal institutions, and the level of government debt. Last, but not least, fiscal support for the financial sector (which is different from discretionary fiscal stimulus) has a crucial role, as the health of the banking system and its potential for credit expansion is crucial for the recovery.

4.2 CHANGES IN THE GLOBAL ECONOMIC ENVIRONMENT

Changes in the global economic environment have important impacts on all countries, but especially on open economies. The crisis affects capital flows, risk premia, trade, migration and also the outlook of major economies. These impacts in turn effect the economies of CESEE countries, thereby limiting their budgetary policies.

First, as we have discussed in Section 5, countries in this region in general have relied heavily on capital inflows to finance investment (and also consumption in many cases). The global nature of the crisis, the ongoing de-leveraging process, and the general reduction in global liquidity, have substantially reduced capital inflows and will even lead to capital outflows. For example, the October 2009 IMF World Economic Outlook includes a forecast for capital flows that foresees substantial decline. These factors pose significant constraints on the ability to raise capital.

Second, the capital that is available will be more expensive, and risk premiums are expected to remain considerably higher than their pre-crisis levels, implying a higher cost of capital for all economic sectors, including the government. Indicators measuring the risk that emerging and developing countries represent for lenders, such as credit default swaps (*Figure 5*) or emerging market bond indices, have shown dramatic increases, suggesting a rise in risk perceptions. These indicators measure current risk perceptions, but it is unlikely that risk perception will decline to pre-crisis levels in the near future. Some authors argue that emerging market bond spreads and credit default swaps were unjustifiably low before the crisis and hence a return to that situation is unlikely.

Third, the substantial fall in global trade, coupled with moves towards protectionism by major destination markets, have an impact on a key pillar for economic success in the generally small and open CESEE economies. Central and south-Eastern European economies in particular heavily depend on trade with the EU, while Eastern European countries are similarly reliant on the Russian Federation. Their previous success was partly based on the building-up of (partly inter-company) trade relations. With the recession in Western Europe and the Russian Federation, CESEE exports will be hit seriously, also reflecting the general finding that cyclical swings in small open economies tend to be greater than in more advanced economies. Furthermore, many export destination countries are considering the adoption of various subsidies for certain sectors, which could further distort trade relations. Any undermining of the close integration of production networks within Europe, and the resulting job losses, would pose a challenge to Eastern countries. While this effect is in some respects cyclical, if recession in Western Europe and Russia is long-lasting and results in the rise of trade-distorting policies, the challenges for CESEE countries will also be long-lasting and serious. Commodity-exporting countries, including of course the Russian Federation, have also been hit by lower demand and revenues for an uncertain duration. Furthermore, in some of the countries there is a high level of specialisation/concentration of activities in a few sectors. Depending on which sectors these are (oil, cars, pharma, high-tech services, etc.), and how important FDI is in these sectors, this might affect their sensitivity of those countries to cyclical downturns, and the sustainability of their long-term growth.

Fourth, migration may also be affected. Some countries in the region have experienced very large outflows of workers to richer economies, with citizens from the new EU member states and Western Balkan countries heading primarily to Western Europe, and those of CIS countries heading to Russia. With the economic slowdown in Western Europe and Russia, labour outflows may slow and even partially reverse. Remittances, which play a very significant role in some of these countries, could dwindle substantially. These developments would have additional adverse consequences. If some of the countries in the region experience very large economic contractions over extended periods, then migration outflows may speed up again, exacerbating the effects of the crisis and undermining the long term prospects of some countries.¹²

¹² Ahearne, Brücker, Darvas, and von Weizsäcker (2009) estimate the potential migration impacts of the crisis for new EU member states. They found that in the short run, the crisis is likely to lead to a lower stock of migrants from the new member states in the EU15 than would have been the case without the crisis, on account of diminished job opportunities for migrants. By contrast, in the longer run, the crisis is set to lead to an increase in migration from the new member states, compared to what would have happened without the crisis. This is because the crisis has undermined the economic growth model of those new member states that relied heavily on external financing to fuel their growth.

Finally, in addition to reduced capital flows, rising risk premia, declining trade, falling remittances and potential reverse migration, developments in the major economies may themselves have major impacts on CESEE countries. Major economies have accumulated huge budget deficits, as a consequence of automatic stabilisers, and also as a result of the huge support given to the financial sector, and discretionary fiscal stimulus in some cases. This has led to abrupt increases in government debt in major economies, which will require more countercyclical fiscal policy in the future to maintain credibility. However, prolonged budgetary adjustments in major economies run the risk of reducing growth for a prolonged period (perhaps after an initial rebound immediately after the crisis due to huge output gaps that will have likely emerged). Such a prolonged adjustment in major economies will significantly impact CESEE countries.

4.3 RECONSIDERATION OF MEDIUM/LONG TERM OUTLOOK

For all of the reasons discussed so far, the previous 'growth model' of CESEE countries is at risk, and substantial downgrades in growth prospects compared to the pre-crisis outlook can be expected.¹³ Reconsideration of the medium- and long-term economic outlook for these countries will have consequences for future budgetary policies. In particular, budgetary expenditure planning must consider new revenue realities.

Furthermore, the crisis will likely have lasting negative wealth effects on these countries. The fall in the price of certain assets, and their future outlook, should be evaluated in the light of pre-crisis expectations for these prices. While asset prices will likely bottom out, if they have not yet done so, their future outlook is not just uncertain, it is also likely that there will be a downward shift in price levels compared to the pre-crisis outlook.¹⁴

The fall in housing prices impacts especially those countries that had huge housing booms in previous years.¹⁵ The fall in commodity prices impacts commodity exporter countries.¹⁶ Wherever foreign currency loans were granted and the exchange rate has depreciated, a wealth effect operates because of the increased debt/income ratio. Increases in the interest rate, both for domestic and foreign currency denominated loans, increases the debt service/income ratio.

¹³ See Darvas and Veugelers (2009) for a detailed analysis of growth prospects of CESEE countries.

¹⁴ At time of finalizing this paper, July 2009, stock indices have increased substantially from their bottom in February/March 2009 and currencies also have strengthened in most countries. The future outlook of asset prices is uncertain. Still, the current levels of eg. stock prices are still just a fraction of their pre-crisis values.

¹⁵ See Égert and Mihaljek (2007) on housing prices and their determinants in some CESEE countries during the boom years

¹⁶ At the same time the fall in commodity prices improves the terms of trade of commodity importers.

Many of the countries have funded pension systems, and the losses assumed directly challenge those who are to retire in the coming years. The downgraded prospects compared to pre-crisis outlooks will also have an effect.

The consequence of all of these wealth effects is a downward shift in consumption patterns. The current crisis is different from a 'regular' bust in a business cycle. Consumption smoothing, if any, will work to a much lesser extent. Instead, heightened falls in consumption are likely due to changed expectations about the future, to wealth effects and also to the difficulties in obtaining credit (supply plus higher real interest rates).

5. BUDGET POLICY REACTIONS IN CESEE COUNTRIES

Budget policy reactions can be understood only in the broader context of other macroeconomic policies and constraints. Due to the substantial revenue shortfall and external financing constraints, most countries simply do not have scope for discretionary fiscal stimulus. In addition, many countries face significant confidence constraints as well. Eight countries (Armenia, Belarus, Bosnia-Herzegovina, Hungary, Latvia, Romania, Serbia, and Ukraine) have stand-by agreements agreement with the IMF¹⁷ and Turkey is in talks. The loans granted under these agreements are conditional on the implementation of a comprehensive economic programme aimed at ensuring fiscal consolidation, structural reform and support for the financial system.¹⁸

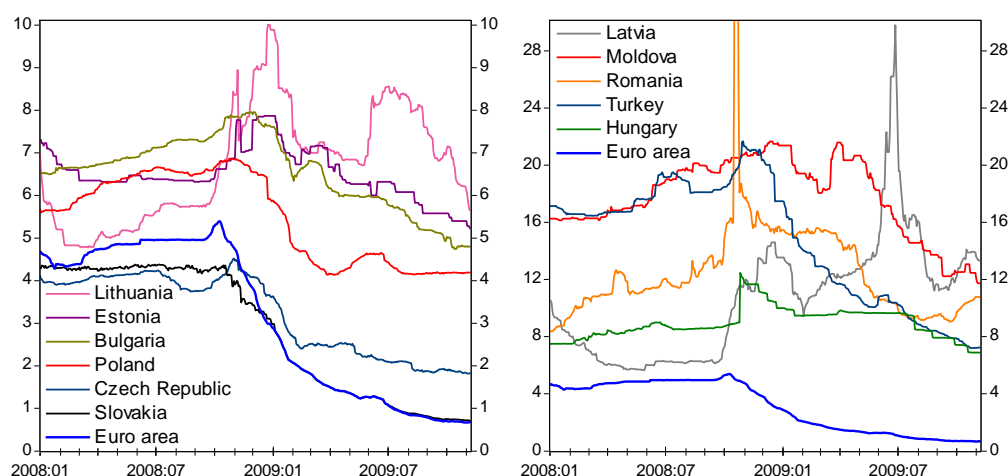
On the other hand, Russia, a large and not-so-open economy with huge fiscal reserves (and low gross government debt, see *Figure 4* on page 11) has scope for fiscal stimulus, and indeed has rightly embarked on a significant fiscal stimulus programme. However, as also highlighted by eg. World Bank (2009), the scope for further fiscal stimulus in 2009 and 2010 appears limited due to the remaining downside risks in the global and Russian economies, and the exhaustion of a large part of Russia's Reserve Fund. Because of its low government debt, Russia has room to borrow externally, which is indeed planned for 2010. But while that is being done, longer term fiscal sustainability should be prioritised, which will require reforms to broaden the revenue base and ensure greater efficiency in public and social programmes.

¹⁷ The IMF programme for the three EU countries (Hungary, Latvia, and Romania) was part of a coordinated international lending programme. The EU and the World Bank contribute to all three programmes; Sweden, Denmark, Finland, Estonia, Norway, the Czech Republic, Poland and the EBRD have contributed to the Latvian programme; the EBRD and the EIB have contributed to the Romanian programme.

¹⁸ As a precautionary measure, Poland has applied for and received the IMF's new Flexible Credit Line, which is granted to countries that adopted sound policies in the past.

Figure 9

3-month interbank interest rates, 2 January 2008 – 6 November 2009



Source: Datastream and National bank of Moldova. Note. The Romanian rate peaked at 49.81% on 20 October 2008, but for better readability of the right hand side panel the vertical axis has a 30% cut-off.

In parallel with budget constraints, monetary policy reactions were varied across countries. Three-month interbank interest rates also reflected this (*Figure 9*). Some countries (e.g. Czech Republic, Slovakia, and Poland) cautiously cut interest rates, while others had to raise them substantially (e.g. Hungary, Romania). Monetary policy actions were determined by pressures on exchange rates, currency composition of debt, and of course by the credibility of economic policies and inflation prospects. Russia and Ukraine aimed for exchange rate stabilisation. Russia has lost one third of its reserves in defending the exchange rate.

A recent IMF staff position note (IMF, 2009) assessed fiscal stimuli in G-20 countries and in a few CESEE countries, while European Commission (2009) presents assessment for all 27 EU countries. In this section, we first report the IMF (2009) and European Commission (2009) results for CESEE countries in comparison to some G-20 countries. In the Appendix we report our own data collected from various sources, which covers all 26 CESEE countries.

Table 2

**G-20 Countries - Estimated cost of Discretionary Measures
(% GDP, relative to 2007 baseline; IMF estimates as of mid-May 2009)**

	2008	2009	2010	All three years
Saudi Arabia	2.4	3.3	3.5	9.2
South Africa ^(3,6)	2.3	3	2.1	7.4
China	0.4	3.1	2.7	6.2
Korea	1.1	3.7	1.2	6.0
Australia	1.2	2.5	2.1	5.8
Russia	0	4.1	1.3	5.4
United States ⁽⁹⁾	1.1	2	1.8	4.9
Japan ⁽⁵⁾	0.3	2.4	1.8	4.5
Spain ⁽⁷⁾	1.9	2.3	...	4.2
Germany	0	1.6	2	3.6
Canada	0	1.9	1.7	3.6
Indonesia	0	1.4	0.6	2.0
India ^(3,4)	0.6	0.6	0.6	1.8
United Kingdom	0.2	1.5	0	1.7
Argentina	0	1.5	...	1.5
France	0	0.7	0.8	1.5
Mexico	0	1.5	...	1.5
Brazil	0	0.6	0.5	1.1
Turkey ⁽⁸⁾	0	0.8	0.3	1.1
Italy	0	0.2	0.1	0.3

Source: Extracted from Table 3.4 of IMF (2009). See detailed notes to the table in IMF (2009).

Note. Countries are ordered according to the sum of the stimulus over 2008-2010.

Table 2 shows that Russia adopted the largest stimulus among G-20 countries in 2009, and the sixth largest for the three-year period from 2008 to 2010. In particular, Russia's stimulus is larger than that of the US, and of any single European country (as a percentage of GDP), both in 2009 and the three-year 2008-10 period.

Turkey's discretionary fiscal stimulus is the second lowest among G-20 countries. The June 2009 stimulus, which is not included in IMF (2009) and hence *Table 2*, is estimated to be 0.3 percent of GDP.

Table 3 indicates that most of the EU member CESEE countries have not implemented discretionary stimulus measures.

Table 3

EU countries - Fiscal stimulus measures in 2009 and 2010
(% GDP, relative to 2008 baseline; DG ECFIN estimates as of mid-May 2009)

	2009								2010
	Total	Expenditure	Revenue	Measures aimed at households	Increased spending on labour market measures	Measures aimed at businesses	Increased public investment	Of which public infrastructure	Total
Bulgaria	0	0	0	0	0	0	0	0	0
Cyprus	0.1	0.1	0	0	0	0	0	0	0
Czech Republic	1.0	0.5	0.5	0	0.5	0.1	0.4	0.4	0.5
Estonia	0.2	0.2	0	0	0.2	0	0	0	0.3
Hungary	0	0	0	0	0	0	0	0	0
Latvia	0	0	0	0	0	0	0	0	0
Lithuania	0	0	0	0	0	0	0	0	0
Malta	1.6	1.3	0.3	0.3	0	0.1	1.3	0.7	1.6
Poland	1.0	0.3	0.7	0.6	0	0.1	0.3	0.3	1.5
Romania	0	0	0	0	0	0	0	0	0
Slovakia	0.1	0.1	0	0	0	0.1	0	0	0
Slovenia	0.6	0.5	0.1	0	0.1	0.3	0.2	0	0.5
Total euro area	1.1	0.5	0.5	0.4	0.1	0.2	0.3	0.1	0.8
United Kingdom	1.4	0.4	1.0	1.2	0	0	0.2	0	0

Source: Extracted from Table I.1.1. of European Commission (2009).

Using a different methodology, Saha and von Weizsäcker (2009) estimate that discretionary fiscal measures amount to 0.5% of GDP in Poland in 2009.

The Appendix details for all 26 CESEE countries the various measures adopted in response to the crisis. Budget policy reactions vary substantially across countries. The less vulnerable countries (eg. the Czech Republic, Malta, Poland, Slovenia) implemented discretionary stimulus measures, but most countries instead engaged in fiscal consolidation.

Direct measures for supporting the financial sector were generally low or zero in CESEE countries (see *Table 4*, *Table 5* and the Appendix). Four CESEE countries (Hungary, Poland, Russia and Turkey) are included in IMF (2009) in this respect (reported in *Table 4*). As an integral part of its IMF programme Hungary gave the largest (among these four countries, in terms of GDP) support to the financial sector that required upfront government financing. Still, measures in all four countries have been dwarfed by the measures that have taken in advanced G-20 countries, which are reported in the last row of *Table 4*. *Table 5* highlights that among the EU member CESEE countries only Hungary and Latvia provided support for the financial sector.

The key reason for this discrepancy is that CESEE countries did not hold US-related toxic assets. However, domestic losses due to falling income, rising unemployment, the bursting housing booms, currency depreciation and increases in retail interest rates, increase the ratio

of non-performing loans and lead to risks of huge losses in some countries. Again, there are substantial differences across the 26 CESEE countries.

Table 4

**Headline Support for the Financial Sector and Upfront Financing Need
(in percent of 2008 GDP; IMF estimates as of May 19, 2009)**

	Capital Injection	Purchase of Assets and Lending by Treasury	Central Bank Support Provided with Treasury Backing	Liquidity Provision and Other Support by Central Bank	Guarantees (excluding deposit insurance)	Total	Upfront government financing
	(A)	(B)	(C)	(D)	(E)	(A+B+C+D+E)	
Hungary	1.1	2.2	0	4.8	1.1	9.2	3.3
Poland	0	0	0	0	3.2	3.2	0
Russia	0.6	0.5	0.4	7.6	0.5	9.6	1.7
Turkey	0	0.3	0	0	0	0.3	0
G-20							
Advanced economies	3.2	4.4	1.2	18.7	22.9	50.4	5.8

Source: Extracted from Table 2.1. of IMF (2009).

Table 5

**Public interventions in the banking sector (in percent of projected 2009 GDP;
DG ECFIN estimates as of May 8, 2009)**

	Capital injections		Guarantees on bank liabilities		Relief of impaired asset		Liquidity and bank funding support		Total for all approved measures	Total effective for all measures	Deposit guarantee scheme
	Total approved measures	Effective capital injections	Total approved measures	Guarantees granted	Total approved measures	Effective asset relief	Total approved measures	Effective liquidity interventions			
Bulgaria	0	0	0	0	0	0	0	0	0	0	€ 50,000
Cyprus	0	0	0	0	0	0	0	0	0	0	€ 100,000
Czech Republic	0	0	0	0	0	0	0	0	0	0	€ 50,000
Estonia	0	0	0	0	0	0	0	0	0	0	€ 50,000
Hungary	1.1	0.1	5.9	0	0	0	0	0	7.0	0.1	100%
Latvia	1.4	0	10.9	2.8	0	0	10.9	6.1	23.1	8.9	€ 50,000
Lithuania	0	0	0	0	0	0	0	0	0	0	€ 100,000
Malta	0	0	0	0	0	0	0	0	0	0	€ 100,000
Poland	0	0	0	0	0	0	0	0	0	0	€ 50,000
Romania	0	0	0	0	0	0	0	0	0	0	€ 50,000
Slovakia	0	0	0	0	0	0	0	0	0	0	100%
Slovenia	0	0	32.8	0	0	0	0	0	32.8	0	100%
Total euro area	2.6	1.4	20.6	8.3	12.0	0.7	1.3	0.7	36.5	11.1	
United Kingdom	3.5	2.6	21.7	9.5	0	0	25.1	18.7	50.3	30.8	ca. € 57,000

Source: Extracted from Table III.6.1. of European Commission (2009).

The banking system has a crucial role in financing CESEE economies. Furthermore, due to the substantial foreign ownership of the banking system in many CESEE countries the behaviour of foreign banks is decisive for these countries. In recognition of these factors, there has been strong international backing for stabilisation of financial systems in CESEE countries, thereby easing the pressure on their budget policies (see Box 2).

Box 2. External support for the CESEE financial sector

The EU's commitment not to let any systemically important bank fail in the euro area, or in Sweden (whose banks own most of the banking system in the Baltic countries), the commitment that packages designed to help international banking groups can also benefit their subsidiaries, and the ECB's liquidity support to euro-area banking groups, have also helped their subsidiaries in the CESEE region.

Efforts to stabilise the financial system in CESEE countries (irrespective of the ownership structure) are supported by the joint action plan of the EBRD, EIB Group and World Bank Group, unveiled on 27 February 2009. This initiative aims to support the CESEE banking sectors and bank lending to businesses, in particular to small and medium-sized firms, up to a level of €24.5 billion over two years in the form of equity and debt finance, credit lines, and political risk insurance.

The so called 'Vienna Initiative', which is a multilateral effort to secure financial sector stability in those CESEE countries with substantial foreign bank ownership, aims to stimulate coordination between all relevant stake holders, including international banking groups, home and host country authorities, international financial institutions and the EU. The aim of the initiative is to develop a common understanding on key issues, to secure the commitments made by both international banking groups and home and host country authorities, and to coordinate a fair burden-sharing.

Furthermore, agreements between central banks, most notably the euro/lats swap offered to Latvia by the Danish and Swedish central banks and the Swedish krona/Estonian kroon swap offered by Sweden to Estonia, are also helpful for the stability of the banking sector. The option of getting foreign exchange liquidity in exchange for domestic currency alleviates the pressure on domestic currency markets.

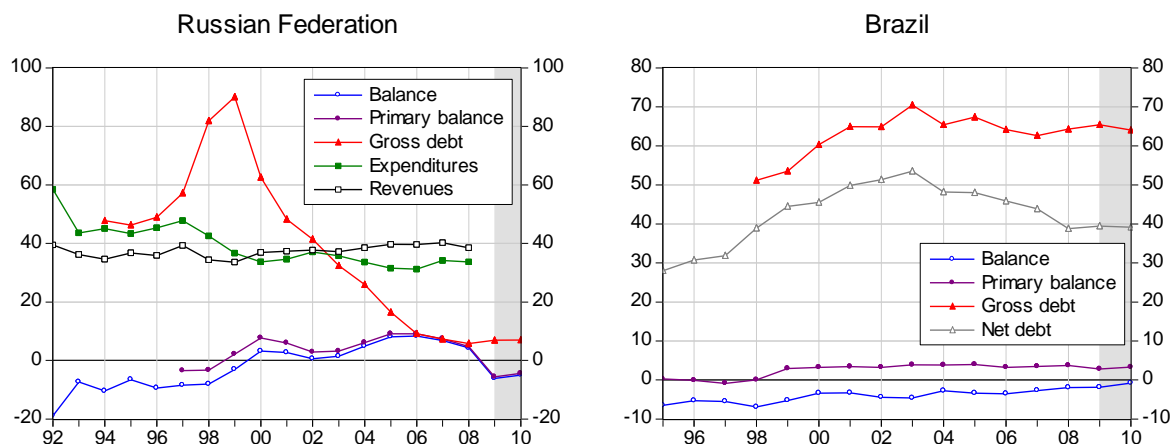
6. LESSONS FROM PREVIOUS EMERGING MARKET CRISES TO BUDGET POLICY

Previous economic crises were a major cause of structural reforms in general and of the budget in particular. For example, Henriksson (2007) presents an excellent essay about fiscal reforms in Sweden, which were prompted by the deep Swedish economic and financial crisis of the early nineties. Kopits (2008) lists some examples from CESEE countries. Baksay and Kiss (2009) describe and analyse the new Hungarian fiscal responsibility law that was adopted by the Parliament in December 2008. The law was initiated well before the crisis but the crisis has speeded up its finalisation and passing.

Let us highlight two other cases: the Russian Federation and Brazil after 1998. Both countries experienced serious crisis in 1998/99; furthermore, Brazil's economic history since the oil shocks was a tale of crises, instability, hyperinflation, temporary economic booms followed by serious busts, and serious fiscal tensions between the central and regional governments. However, despite the global nature of the current crisis, instead of asking help from the IMF, both countries intend to invest US\$10 billion in notes to be issued by the IMF to support the Fund's activities elsewhere. The fiscal consolidation and reform, as well as changes in monetary and exchange rate policies prompted by the 1998/99 crises, changed the position of these countries from potential and actual recipients of IMF loans to suppliers.

Figure 10

General government budget data (% GDP)



Sources: Russia: EBRD (for 1992-2006) and IMF (for 2007-2010) except the primary balance, which is from the IMF in the full period; Brazil: Banco Central do Brasil (1995-2008) and IMF (2009-2010). Note. Gross debt for Brazil is based on the official method used until 2007 (this is still in use, though it has now been supplemented with another method). The new method indicates that gross debt was between 2 and 9 percentage of GDP lower between 2006 and 2009, in comparison to the former method, when data from both methodologies are compared side by side.

Russia's fiscal policy was characterised by very high deficits before the 1998 crisis averaging 8.5 percent of GDP between 1993 and 1997 (*Figure 10*).¹⁹ Business subsidies amounted to about 16 percent of GDP, with little social benefit. The external financial constraints posed by the crisis forced substantial budget consolidation and vital fiscal reforms.

Consolidated general government expenditures were cut substantially from a peak value of 48 percent of GDP in 1997 to 34 percent of GDP in 2000. The average expenditure ratio over 1999-2007 was also 34 percent of GDP and hence the consolidation turned out to be permanent with little time variation (*Figure 10*).²⁰ The largest declines in non-interest spending, compared to the pre-crisis years, have been in transfers to regions and in capital expenditures. However, wages, social transfers, and defence spending have also been cut. Many inefficient subsidies were abolished, levelling the playing field. Interest costs, measured in rubles, rose with the exchange rate depreciation following the 1998 crisis, but after rescheduling the debt, cash interest spending also decreased from over 4.5 percent of GDP in 1995-97 to about 3 percent in 2000.

The government continued its tax crusade against the oligarchs, launched in 1997/98, with success. The government started applying the tax laws to big enterprises, especially the oil and gas companies, which had previously enjoyed individually negotiated tax rates. Substantial progress was also made in monetisation and rollback of barter, which had risen to 54 percent of all inter-company payments in 1998, but fell back below 15 percent by 2001, and continued to fall in subsequent years.

At the same time, revenues were centralised away from the regions to the central government through statutory increases in federal shares of VAT and income tax in 1999, and through the introduction of new tax-sharing rules in 2000. The reintroduction of export taxes in early 1999 and their subsequent expansion were major sources of higher revenue. A new aggressive bankruptcy law tightened the budget constraints. Later, in 2001/2002, a radical tax reform was implemented²¹, measures were taken to make doing business easier and to secure property rights, and progress was also made with financial sector reform. Starting in 2004, most of the windfall oil revenues were saved in a Stabilisation Fund that was later divided into

¹⁹ Main sources for the Russian summary are IMF (2000, 2001) and Åslund (2007).

²⁰ By studying 85 fiscal consolidation episodes in 24 OECD countries since 1978, OECD (2007) finds that consolidations based on expenditure cuts, including social spending cuts, tended to be larger and longer-lasting than consolidations based on revenue increases.

²¹ Key elements include reduction in and consolidation of social fund contributions, improvements to VAT, sharp reduction in turnover taxes, the introduction of a flat personal income tax at a reduced average rate, strengthened excise taxes, amendments to the profit tax that reduce the rate while eliminating most exemptions, and a new simplified system for the taxation of mineral resources.

a Reserve Fund and a National Welfare Fund (of which the former was indeed used in 2009 to cover the budget deficit).

All of these factors and the related financial stabilisation of the economy have contributed to Russia's excellent budget performance in the post-crisis period, and to strong economic growth.²² Still, the reforms implemented in response to the 1998 crisis are not the end of the story. The Russian Federation still faces significant fiscal challenges and there is much room for further improvement (see, eg. OECD, 2009, and World Bank, 2009). Furthermore, as we shall demonstrate in the next section, the Russian Federation is one of the lowest-ranking of the 26 CESEE countries in terms of preventing corruption and maintaining the rule of law. The government has a crucial role in making improvements in these areas.

Brazil also implemented very ambitious fiscal reforms after the 1998/99 crises.²³ In 1998 the federal government announced its first Fiscal Stabilisation Programme, comprising four initiatives: (a) fiscal adjustment to increase the primary surplus of the consolidated public sector (in contrast to the pre-crisis close-to-zero and small negative primary balances, a primary balance target of plus 3.75 percent of GDP was introduced, which was later raised to 4.25 percent), (b) institutional reform, including social security system and administrative reform, (c) redesign of fiscal federalism based on a comprehensive debt financing and restructuring agreement with federal states and local governments, (d) reform of the budgetary process and the introduction of fiscal rules. The primary balance targets were generally reached (*Figure 10*). The debt-restructuring agreement with federal states and local governments was the basis for the change in sub-national governments' fiscal performances after 1998. The improvements were further consolidated after the approval of the May 2000 Fiscal Responsibility Law, which set for the three levels of government a general framework for budgetary planning, execution and reporting. The law called for sustaining the structural adjustment of public finances and constraining public indebtedness. It comprised three types of fiscal rules: general targets and limits for selected fiscal indicators; corrective institutional mechanisms in case of non-compliance; and institutional sanctions for non-compliance. Brazil's public sector had substantial foreign currency liabilities before the 1998 crisis, but it could gradually reduce the foreign exchange exposure to less than ten percent of GDP. Fiscal policy was accompanied by strict monetary policy with inflation targeting under floating exchange rates, which was again a fundamental revision of pre-1999 policies. Fiscal reforms

²² As OECD (2009) emphasizes, temporary factors have also contributed to the strong recovery after the Russian crisis of 1998, including the undervaluation of the rouble, low capacity utilization and spare labour resources.

²³ The main source for the Brazilian summary is Goldfajn and Guardia (2004).

played a crucial role in Brazil's good growth performance after 1999 and in Brazil's resistance to the current global crisis.

7. BUDGET POLICY OPTIONS IN CESEE COUNTRIES

In principle the current global economic environment calls for Keynesian policies. Although potential output is also likely to be falling in all countries of the world, actual output is falling to much greater extent. As a result, in many countries large negative output gaps are expected, and hence the fall in actual output is not just a case of correcting pre-crisis positive output gaps that existed in many countries, including the CESEE region.

Furthermore, the development of large negative output gaps is not just the result of domestic factors. The current crisis is likely to be a once-in-a-generation event, affecting all countries worldwide. The falls in external demand and remittances are clearly external factors, as well as disturbances in international financial markets and the resulting global changes in liquidity and capital flows to emerging and developing countries.

Temporary discretionary fiscal actions, as well as monetary policy easing, are precisely suitable for overcoming the demand shortage. Many countries, most notably major economies but also many emerging economies, are rightly adopting various fiscal stimulus measures (see *Table 2* on page 27).

In CESEE countries, government debt is generally low in most (but not all) cases (see *Figure 4* on page 11). In principle, this would provide even more room for discretionary fiscal stimulus.

Having said that, the viability of discretionary fiscal stimulus in CESEE countries has to be looked at from the angle of country-specific circumstances.

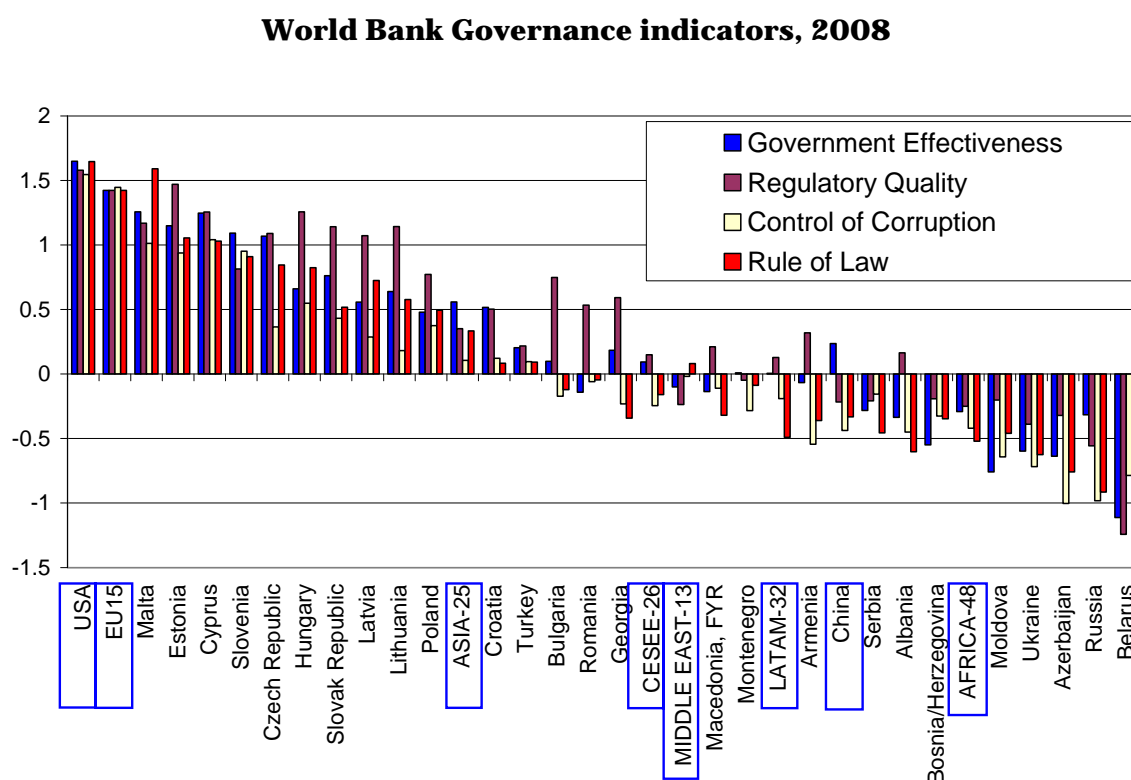
First, financial constraints pose unavoidable limitations to such policies. Even countries with low government debt levels and substantial fiscal reserves, such as Estonia, are seriously constrained by the revenue shortfall resulting from the unexpected depth of the recession. Contingent liabilities should also be taken into account when deciding on discretionary measures. The crisis has substantially increased the risk of further government intervention in the banking system. Furthermore, the debt level tolerance of markets is lower for emerging and developing countries than it is for major economies. Government debt defaults occurred at reasonably low debt levels²⁴ (see, eg, by Sturzenegger and Zettelmeyer, 2006).

²⁴ For example, among recent cases of government default, the public debt-to-GDP ratio was 37 percent in Ukraine, 45 percent in Argentina, 54 percent in the Russian Federation and 66 percent in Ecuador, in the year before the government default.

Second, the impact of the fiscal stimulus on the domestic economy crucially depends on whether a country is large and closed, or small and open. In small and open economies the effect of the stimulus can easily show up in increased imports. The Great Depression taught us that protectionism can prolong the recession and hence this is not the path small and open countries (and of course all other countries) should follow. On the other hand, small and open economies can benefit from the stimulus implemented in their main destination markets through trade and migration links.

Third, the results of the fiscal stimulus very much depend on the strength and credibility of fiscal institutions. *Figure 11* presents the four out of the six World Bank governance indicators on which governments have the greatest impact. Although large variation is evident, in many countries government effectiveness, regulatory quality, control of corruption and the rule of law still lags substantially behind the EU-15 and the US.²⁵

Figure 11



Source: World Bank.

Note. The average score of all countries of the world is zero. Countries are ordered according to the average of the four indicators.

Fourth, related to the previous point, the potential effect of stimulus programmes on investors' confidence should be considered. The weaker the credibility of the stimulus

²⁵ A direct measure of the quality of fiscal institutions is presented in eg. Fabrizio and Mody (2008) for EU member countries (for which data is available). The index shows that some EU member CESEE countries lag behind the EU-15.

programme is, the more likely it will result in increased risk perception and, eventually, higher interest rates and capital outflows.

Fifth, as capital is becoming scarce, the potential for private investment to be crowded-out is also an important factor for countries facing external financing constraints.

Regarding the above list of issues, there is a key dividing line between CESEE countries. On the one hand, Russia is big, has low debt and substantial fiscal reserves and hence may be less exposed to the risk of loss of investors' confidence, especially since the rouble has been allowed to depreciate significantly. Discretionary fiscal stimulus was the right decision for Russia. Azerbaijan also has substantial reserves and its economy is still expected to grow by about 7.5 percent both in 2009 and 2010 (see *Figure 1* on page 7).

On the other hand, all other countries have much narrower or even zero scope for discretionary measures, though there are important differences between countries. Poland and Turkey, for example, are larger countries than most of the CESEE, and their debt levels are around 50 percent of GDP. Such a debt level is higher than in many other CESEE countries, but still at a level that does not itself pose a risk of a loss of credibility, provided that the stimulus package is implemented in a credible and timely way. The Czech Republic, Slovakia and Slovenia, the latter two of which enjoy the sheltering effect of the euro area, also have greater scope for fiscal stimulus, as they did not accumulate significant vulnerabilities before the crisis. However, their small and open economy characteristics certainly limit the effectiveness of Keynesian policies on their domestic economies. Countries that have had to rely on IMF programmes have no scope at all for stimulus, and other CESEE countries should be very cautious as well.

The limited scope for fiscal stimulus leads us ask if the crisis can be used as an opportunity to reform fiscal institutions, improve their quality and embark on a necessary budgetary consolidation. As we have discussed in Section 0, many previous crises prompted substantial fiscal reforms and serious budget cuts, despite earlier arguments that challenging interest groups and reducing public expenditures would be impossible.

External financial constraints, while costly in the short run, help to expose the weaknesses of fiscal institutions, and prompt reforms that have the potential of paving the way to much better macroeconomic outcomes. The crisis is certainly very painful in many respects. Unemployment has increased dramatically in many countries; many people have lost their homes; many corporations have gone bankrupt, etc. However, the crisis, and especially its global nature, also helps in communicating to the general public the need for budgetary adjustment and structural reforms, including fiscal reforms.

Still, there are limits, and highly pro-cyclical budget cuts during a severe recession should be avoided. For example, the latest forecasts for GDP falls in Latvia in 2009 are in the 15-20

percent range. The Latvian authorities decided to maintain the exchange rate peg and had no other choice but to rely on the international community for emergency financing. As the recession became much deeper than what had been seen up to the point when the programme was designed, the budget deficit widened even more, requiring additional and substantial fiscal efforts to limit it, so that Latvia could receive the subsequent tranches provided by the financing programmes. This happened even though international financial institutions agreed to somewhat higher deficit levels. In June 2009 the Latvian parliament passed a new budget law with additional cuts. While much blame can be laid on the Latvian side for past behaviour (in particular, fiscal expenditures were increased substantially before the crisis and little was done to limit the credit boom and the huge current account deficit) the EU should be more flexible with regard to Baltic aspirations to join the euro area.²⁶

Regarding budget policy options for the future, some general principles could be laid down.

First, as a priority that is relevant both for the very short run and the longer term, the good functioning of the financial system should be maintained. At the same time, so-called 'zombie lending' should be avoided.²⁷

Second, the crisis should be used as an opportunity for structural reforms to enhance growth in general and fiscal frameworks in particular. Reforms to avoid future pro-cyclical policies, and to increase credibility and the quality of budgeting, such as fiscal responsibility laws comprising medium-term fiscal frameworks, fiscal rules²⁸, and independent fiscal councils, should be considered where such institutions do not exist.

²⁶ There are serious concerns with the euro accession criteria. Two decades after the designing of the criteria and one decade since the launch of the euro it is time to reform the criteria and to strengthen their economic rationale. There is a straightforward way to do that: the EU treaty itself specifies an obligation on the Council to lay down the details of the convergence criteria and the excessive deficit procedure. See the economic and legal aspects of reforming the criteria in Darvas (2009).

²⁷ On zombies see, for example, Aherane and Shinada (2005) and Caballero, Hoshi and Kashyap (2006).

²⁸ Kopits (2004) argues that fiscal policy rules (if well-designed and properly implemented) can be useful commitment tools for emerging market economies exposed to macroeconomic volatility and high capital mobility. They can be instrumental in avoiding myopic policies that result from dynamic inconsistency and or/political distortions, and in a broader sense they can help to depoliticise the macroeconomic policy framework. Regarding the interaction of fiscal rules and fiscal consolidations, OECD (2007) finds that countries with fiscal rules achieved better results in consolidating public finances. Furthermore, fiscal rules can also contribute to better performance in a monetary union. As Darvas, Rose and Szapáry (2007) have shown, when a country has a chance to run a substantially and persistently higher budget deficit than other countries, it likely creates idiosyncratic shocks that result in the business cycle deviating from that in the rest of the currency union. This would violate one of the most important criteria of the optimality of currency areas: the synchronisation of business cycles.

When fiscal consolidation is accompanied by fiscal reforms that increase credibility, non-Keynesian effects²⁹ may offset to some extent the contraction caused by the consolidation.

Third, protection of the most vulnerable should be prioritised. Unemployment has different social consequences in rich and poor countries. In poor countries household saving is typically lower, and the risk of poverty is larger.

Fourth, debates over healthcare and pension reforms should be re-opened, especially in countries facing serious demographic pressures.

Fifth, spending on pro-growth policies, such as education and innovation, should be maintained but rationalised so as not to destroy the longer term post-crisis growth prospects of these countries.

Finally, long term fiscal sustainability should be highly prioritised. All of the above recommendations would contribute to this.

How to do all of these at the same time when significant fiscal consolidation is needed in many countries? There are some countries that did manage this during crisis episodes. Let us quote a sentence from Henriksson's excellent essay on 'Ten lesson about budget consolidation' (2007), which was inspired by his active involvement in the dramatic Swedish budgetary measures that were taken after the crisis of the early 1990s: ³⁰ *"The bottom line may thus be: if you have to consolidate, wait for a deep crisis to occur, and it will be easy to do, easy to communicate and easy to be re-elected."* The crisis is now here and the opportunity should not be missed.

²⁹ The 'non-Keynesian effects of fiscal consolidation' refers to increased private sector demand in response to cuts in government spending. If fiscal adjustment credibly signals fiscal sustainability and reduces the expected tax burden on the private sector, private sector demand may start again to compensate for the fall in government demand. Rzońca and Ciżkowicz (2005) present evidence that non-Keynesian effects were indeed in force in new EU member states. Giudice and Turrini (2007) study fiscal consolidations that have been undertaken in the EU in the last 30 years and conclude that roughly half of these episodes have been followed by higher growth. Their results indicate that the consolidations that turned out to be expansionary were more likely to have started in periods with output below potential, and to have been based on expenditure cuts rather than on tax increases.

³⁰ As a result of the budget consolidation measures, government debt in Sweden turned out to be 53 percent of GDP in 2000 instead of increasing to 128 percent of GDP as was projected by the OECD in 1994.

REFERENCES

- Ahearne, Alan, Herbert Brücker, Zsolt Darvas, and Jakob von Weizsäcker (2009) 'Cyclical dimensions of labour mobility after EU enlargement', *Bruegel Working Paper* No. 2009/2
- Aherane, Alan, and H. Shinada (2005) 'Zombie firms and economic stagnation in Japan', *Hi-Stat Discussion Paper Series* 95.
- Åslund, Anders (2007) *Russia's capitalist revolution: Why market reform succeeded and democracy failed*, Peterson Institute for International Economics, Washington DC
- Baksay, Gergely, and Gábor P. Kiss (2009) 'Act one, act first – the law on fiscal responsibility', *Magyar Nemzeti Bank Bulletin*, May, p. 15-23.
- Blanchard, Oliver, and Roberto Perotti (2002) 'An empirical characterization of the dynamic effects of changes in government spending on taxes and output', *The Quarterly Journal of Economics*, Vol. 117, p. 1329-1368
- Caballero, R., T. Hoshi, and A. Kashyap (2006) 'Zombie lending and depressed restructuring in Japan', *NBER Working Paper* No. 12129
- Canova, Fabio (1998) 'Detrending and Business Cycle Facts', *Journal of Monetary Economics* 41, p. 475-512
- Collins, Susan M. (2006) 'Commentary: Patterns of international capital flows and their implications for economic development by Prasad, Rajan, and Subramanian', proceedings, Federal Reserve Bank of Kansas City, p. 159-167
- Darvas, Zsolt (2009) 'The Baltic Challenge and Euro Area Entry', Bruegel Policy Contribution.
- Darvas, Zsolt, and György Szapáry (2008) 'Euro area enlargement and euro adoption strategies', *European Economy – Economic Papers* 304, Directorate-General for Economic and Financial Affairs, European Commission, Brussels. To appear as a chapter in: Buti, Marco, Servaas Deroose, Vitor Gaspar and João Nogueira Martins (eds.), *Euro-The First Decade*, Cambridge University Press, forthcoming
- Darvas, Zsolt, and Reinhilde Veugelers (2009) 'Beyond the crisis: Prospects for transition economies', mimeo, Bruegel
- Darvas, Zsolt, Andrew K. Rose, and György Szapáry (2007) 'Fiscal divergence and business cycle synchronization: Irresponsibility is idiosyncratic', in: Jeffrey A. Frankel and Christopher A. Pissarides (eds.), *NBER International Seminar on Macroeconomics 2005*, MIT Press: Cambridge, MA, p. 261-298
- Égert, Balázs, and Dubravko Mihaljek (2007) 'Determinants of house prices in central and Eastern Europe', *Bank of International Settlements Working Paper* No. 236
- European Commission (2009) 'Public Finances in EMU', *European Economy* 5/2009 (Provisional Version), Directorate-General Economic and Financial Affairs of the European Commission.
- Fabrizio, Stefania, and Ashoka Mody (2008) 'Breaking the impediments to budgetary reforms: evidence from Europe', *IMF Working Paper* No. 08/82, International Monetary Fund
- Giudice, Gabriele, and Alessandro Turrini (2007) 'Non-Keynesian Fiscal Adjustments? A Close Look at Expansionary Fiscal Consolidations in the EU' *Open Economies Review* 18(5), p. 613-630.
- Goldfajn, Ilan, and Eduardo Refinetti Guardia (2004) 'Fiscal rules and debt sustainability in Brazil', in: George Kopits (ed), *Rules-Based Fiscal Policy in Emerging Markets. Background, Analysis and Prospects*, Macmillan Publishers Limited, p. 114-130
- Henriksson, Jens (2007) *Ten lesson about budget consolidation*, Bruegel Essay and Lecture Series

- Ilzetzki, Ethan, and Carlos A. Vegh (2008) 'Procyclical fiscal policy in developing countries: Truth or fiction?', *NBER Working Paper* No. 14191
- International Monetary Fund (2000) *Russian Federation: Staff Report for the 2000 Article IV consultation*, Washington DC
- International Monetary Fund (2001) *Russian Federation: Staff Report for the 2001 Article IV consultation*, Washington DC
- International Monetary Fund (2009) 'Fiscal implications of the global economic and financial crisis', IMF Staff Position Note, June, Washington DC
- Kaminsky, Graciela, Carmen Reinhart, and Carlos A. Vegh (2004) 'When it rains it pours: Procyclical capital flows and macroeconomic policies', in: Mark Gertler and Kenneth Rogoff (eds.) *NBER Macroeconomics Annual*, Vambridge, MA: MIT Press
- Kiss, Gábor P., and Róbert Szemere (2009) 'Apples and oranges? A comparison of the public expenditure of the Visegrád countries', *Magyar Nemzeti Bank Bulletin*, May, p. 35-47.
- Kopits, George (2004) 'Overview of fiscal policy rules in emerging markets', in: George Kopits (ed), *Rules-Based Fiscal Policy in Emerging Markets. Background, Analysis and Prospects*, Macmillan Publishers Limited, p. 1-11
- Kopits, George (2008) 'The political economy of fiscal reform in Central and Eastern Europe', *OECD Journal on Budgeting* 8(3), p. 127-137
- OECD (2007) 'Fiscal consolidation: Lessons from past experience', Chapter 4 in *OECD Economic Outlook*, June
- OECD (2009) 'OECD Economic Surveys: Russian Federation', Vol. 2009/6, July
- Prasad, Eswar, Raghuram G. Rajan, and Arvind Subramanian (2006) 'Patterns of international capital flows and their implications for economic development', proceedings, Federal Reserve Bank of Kansas City, p.119-158
- Rzońca, Andrzej and Piotr Cizkowicz (2005) 'Non-Keynesian effects of fiscal contraction in new member states', *ECB Working Paper* No. 519.
- Saha, David, and Jakob von Weizsäcker (2009) 'EU stimulus packages', *Bruegel Policy Contribution* 2009/2
- Sturzenegger, Federico, and Jeromin Zettelmeyer (2006) *Debt Defaults and Lessons from a Decade of Crises*, The MIT Press
- World Bank (2009) 'Russian economic report No. 19', June

9. APPENDIX: BUDGET POLICY MEASURES IN CESEE COUNTRIES*

Country	Stimulus packages and/or support for the most vulnerable	Spending reductions	Augmentation of revenue	Support for the financial sector	Notes
Albania	Increase in public-sector wages and pensions (Source: SETimes.com) totalling of 0.7% of GDP.	2009 budget review aiming at revising/reducing overall expenditures to be finally approved during September 2009 in parliament; Council of Ministers draft decision to prohibit tendering of investment projects after July 31st, 2009; Order by the Minister of Finance to prohibit extensions/reallocations after July 20th, 2009; Cuts in social contribution rate by 5%. (Ministry of Finance)	Council of Ministers approved a law to increase excise duties on tobacco, alcoholic drinks and coffee with an impact of around 0,2% of GDP (Ministry of Finance)	Guarantees for retail bank deposits and savings of individuals were increased to 20,000 euro, almost doubling the previous coverage. (Ministry of Finance)	IMF programme expired in January 2009, but the government has not asked for a successor programme (EIU). The IMF is advising spending reductions (SETimes.com). Fiscal rules: 1) Organic budget law stipulates that public debt, including guarantees, should not exceed 60% of GDP and 2) the amount of budget deficit should not exceed the amount of capital expenditures. The second rule applies to central and local government. The increase in wages and pensions was made possible by the contingency fund planned for the 2009 budget. (Ministry of Finance)

* Empty cells in the table indicate either no measures or lack of information. The first version of this table was compiled mostly by Mait e de Sola, whose contribution is greatly appreciated. Comments and additions from delegates from Albania, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Lithuania, Macedonia FYR, Malta, Moldova, Poland, Romania, Slovakia, Slovenia, Turkey, and Ukraine at the OECD's fifth meeting of senior budget officials from central, eastern and south-east European Countries, held on 25-26 June 2009 in St. Petersburg, Russian Federation, are also highly appreciated. Anto Bajo from the Institute of Public Finance provided additional information for Croatia, which is also greatly appreciated.

Armenia	<p>The IMF-supported programme includes an increase in social spending of about 0.3 percent of GDP (IMF), such as increased social payments, or subsidies for newborn children (www.armenianow.com, EIU). Credits to help SMEs (www.armenianow.com)</p>	<p>Postponing the disbursement of some funds for non-essential projects (EIU) Practice of drawing up three-year expenditure plans ended (EIU)</p>	<p>The Parliament rescinded its Dec-08 decision to raise excise taxes on imported alcohol and tobacco to avoid reducing imports and then tax revenues. Tax reforms: tax administration, evasion... launched in mid-2008 Reduce tax evasion through compulsory cash registers and incentives to prompt customers to ask for receipts (EIU)</p>	<p>Emergency loans from foreign governments (Russia) and IFIs (IMF stand-by agreement) (RGE Monitor, EIU). Pension reform to alleviate the burden on the system (www.armenianow.com) The IMF approved a \$540m loan (5% GDP) to Armenia in March-09 under the Fund's fast-track Emergency Financing Mechanism procedures, and the country let its currency fall by 21% against the dollar. This emergency funding came shortly after Armenia received poverty reduction funds (RGE Monitor). The amount has been increased to \$823m (almost 8% GDP) in June (IMF).</p>
Azerbaijan	<p>Increase spending on social welfare (EIU)</p>			<p>The effect of lower oil prices could force transfers from the State Oil Fund (EIU)</p>

Belarus	<p>The government will limit reduction of social spending and income distribution. Healthcare spending, social subsidies and public-sector wages are increasing (EIU). Housing assistance for families with three or more children, non-cash housing subsidies for low-income families, and unemployment assistance will be increased (IMF)</p> <p>Reduce burden on businesses: cuts in turnover tax and introduction of a flat rate of income tax (EIU)</p>	<p>Wages can be frozen; less extensive subsidies; substantial expenditure cuts are to be made - construction, maintenance costs and transport services (EIU)</p>	<p>Import duties and tariffs have been increased (EIU)</p>	<p>IMF Stand-by agreement (US\$3.52 billion, or about 7% of Belarus's GDP) initially approved in January 2009 and increased in June. The revised arrangement will support the government's economic programme and help Belarus contain the effects of a greater than expected impact from the global financial crisis. To reduce the resulting financing gap, the authorities will maintain a balanced budget in 2009, despite lower revenues; will keep monetary policy adequately tight; will allow more exchange rate flexibility within a fluctuation band which is now ± 10 percent around the parity rate; and will deepen structural reforms (IMF)</p> <p>Belarus widened its currency band in June 2008 (RGE Monitor)</p>
----------------	--	--	--	--

Bosnia-Herzegovina	VAT burden is to be eased (EIU)	Public sector wage cuts, tightened eligibility for invalidity benefits. Measures agreed focus on fiscal consolidation and public sector wage restraint, which, in addition to ensuring stability in the short term, will also help put public finances on a sustainable path (RGE Monitor). Central and local governments have put forward a number of measures to cut spending (EIU), with the Federation needing to make the biggest effort (RGE Monitor)	Increased excise duties (EIU)	Support adequate liquidity and capitalisation of banks under the IMF programme	July 2009: US\$1.57 Billion IMF Stand-By Arrangement (IMF). The authorities' programme aims to safeguard the currency board, consolidate public finances and put them on a sustainable medium-term path, maintain adequate liquidity and capitalisation of banks, secure sufficient external financing, and restore confidence.
---------------------------	---------------------------------	---	-------------------------------	--	---

Bulgaria	<p>The 2009 budget does not foresee any fiscal stimulus measures (Source: EMU report). This is in compliance with the 90% rule set in the 2009 State Budget Law. Specific measures were taken:</p> <ul style="list-style-type: none"> - Salaries in the budgetary sector and pensions have been increased (1.3% GDP) (EMU report), but salaries have been frozen since the beginning of 2009. - Higher capital spending (0.1% of GDP) (EMU report) - Lower pension social contribution rate (European Commission) 	<p>At the beginning of June, the government said it would cut ministers' pay by 15 percent in addition to already limiting spending to 90 percent of the budgeted amount (Forbes) Limits for the disbursement of non-interest expenditure in case of a worse-than-budgeted revenue outcome (EMU report)</p>	<p>Increases in the mandatory minimum insured income thresholds, in the healthcare contribution rate, in excise rates and in property valuations for local property taxes (total: 1.8% of GDP) (EMU report)</p>	<p>Extension of deposit guarantees up to €50,000, following the European Commission proposals. No capital injections or liquidity or bank support have been implemented (EMU report)</p>	<ul style="list-style-type: none"> - Maintaining positive balance under the consolidated fiscal programme (3% of GDP as set in the Addendum to the last Convergence Programme) in order to ensure public finance long-term sustainability; - Restricting expenditure reallocated through the budget in the medium term (to 40% of GDP as set in the Addendum to the last Convergence Programme);
-----------------	--	---	---	--	--

Croatia	<p>Some anti-recession measures and maintenance of the standard of living of socially vulnerable groups. (Ministry of Finance)</p> <p>As welfare (pension, health, unemployment) expenditure increased by 2 billion EURO (about 4% of GDP), there seems to be no space for further increases. Government is planning to shorten working week and ensure additional money for unemployed in central government budget. (IPF - Institute of Public Finance)</p>	<p>Mostly symbolic spending reductions (about 0.3% of GDP) (IPF), including a public-sector wage cut of 6% (Forbes). After cutting spending in April 2009, further cuts were made in a second supplementary budget targeted at state aid to public enterprises; material costs and capital investments were cut, salaries of government officials were further reduced by 5% and parliamentary pensions by 10%. Third supplementary budget was announced in which further cuts to salaries, pensions and social rights could be expected. (Ministry of Finance)</p>	<p>Parliament approves VAT hike from 22 to 23%, additional Crisis tax (payroll tax) was introduced with two tax rate: 2% for salaries, pension and capital gains until 3,000 HRK and 4% above 6,000 HRK. It's considered revision of existing taxes by rising existing tax rates or broadening tax base (Vocational houses tax, inheritance and gift taxes, yachts etc.). All in all, increase of tax burden is small. (IPF)</p>	<p>Increase in guaranteed savings deposits from HRK 100.000 to HRK 400,000.</p> <p>No capital injections or liquidity or bank support have been implemented due to good capitalisation and profitability of banks (Ministry of Finance)</p> <p>As in previous years, government provides additional funds for state Croatian bank for reconstruction and development (HBOR) in order to provide subsidies loans to the private sector. (IPF)</p>	<p>New budget act of 2008 requires multi-year planning.</p>
---------	---	---	--	--	---

Cyprus	<p>Stimulus measures: i) infrastructure projects (0.4% of GDP) speeding up the implementation of infrastructure and other projects ii) tourism (0.32% of GDP) -increase the budget for Cyprus Tourism Organisation, reduction of VAT rate applied to hotel accommodation from 8% to 5%, reduction of landing fees levied on airlines, iii) social cohesion (1.1% of GDP) introduction of a scheme for the provision of loans to low-income families for the acquisition of their primary residence, and promoting local tourism through grants for low-income families. (Ministry of Finance)</p>		<p>Increase in excise duty on petrol (with compensating measures to offset it) (EMU report)</p>	<p>Extension of deposit guarantees up to €100,000, following the European Commission proposals. No capital injections or liquidity or bank support have been implemented (EMU report)</p>	<p>Public expenditure is expected to increase only slightly, as higher social transfers are offset by savings in interest payments (EMU report)</p>
--------	---	--	---	---	---

<p>Czech Republic</p>	<p>Several stimulus packages, including higher public-sector wages, infrastructure projects (0.4% of GDP), bank recapitalisation, and lower SS contributions (Ministry of Finance). Reduced SS contributions and write-down of capital goods will reduce revenue by 0.7% of GDP, while indexation of pensions will increase spending by 0.2% of GDP (EMU report). Additional spending equal to about 1.9% of GDP financed partly from the govt's reserve fund (budgeted but unused funds from previous years) (EIU). More welfare provisions for the unemployed, better protection for employees in bankrupt firms, and higher tax deductions for children (EIU). All these measures would expire at the end of 2010 (EIU) Impact on General Government Sector: 1.95% of GDP; Fiscal stimulus: 4.7% of GDP (Czech Ministry of Finance) Act on Support for Economic Growth and Social Stability, an amendment to the Act on Social Security Insurance and an amendment to the Income Tax Act, has been approved, the final decision will be made by the government formed on the basis of the early elections in autumn.</p>	<p>Proposed public-sector wage freeze and budget cuts for all ministries in 2009 (ordinary expenditures), up to 0.6% of GDP (Ministry of Finance, European Commission) and 2010 (EIU). Pensions will be increased by the minimum allowed by law (inflation) (EIU).</p>		<p>Extension of deposit guarantees up to €50,000, following the European Commission proposals.</p> <p>No capital injections or liquidity or bank support have been implemented (EMU report)</p>	
------------------------------	---	--	--	---	--

Estonia	<p>Increase in pensions and advancement of enforcement of the new Labour Law (in total, 0.8% of GDP) (European Commission, EMU report). Mandatory payments into the second-pillar pension funds were suspended.</p>	<p>The government has agreed to budget cuts of some 9 billion kroons (4.0% of GDP), including slashing public sector salaries by 10 percent and abandoning planned increases in pensions (raise 5% from 1st of April 2009; initial plan would have been approximately 14%)(Forbes). During 2009 the general government budget position has been improved a total of EEK 16.1 billion (7.3 percent of the GDP).</p>	<p>Employers' and employees' contributions will rise to finance the Unemployment Insurance Fund (EIU) Increase in social tax minimum contribution basis, suspension of state contributions to the mandatory funded pension scheme, and increase in the unemployment insurance contribution rate (in total, +1.4% of GDP) (EMU report) Increase in VAT and excise duties on motor fuel (Forbes, June 18)</p>	<p>Extension of deposit guarantees up to €50,000, following the European Commission proposals. No capital injections or liquidity or bank support have been implemented (EMU report)</p>	<p>The government has reserves as a result of past surpluses. By the end of June 2009 general government financial assets amounted to 12.95 billion kroons (5.8% of GDP). Two supplementary budgets in 2009. Strategy for the next four years with strict measures to achieve a balanced budget by 2012.</p>
----------------	---	--	---	--	--

<p>Georgia</p>	<p>Increased public expenditure: war with Russia, social welfare, modernising armed forces, and, especially, infrastructure projects. Budget approved in December included increased spending for investment projects, as part of a stimulus package (part of it to be financed by international donors). (EIU) Income and dividend tax cuts (Bloomberg) June 9th, announced position of the Ministry of Finance on spending priorities of 312.0 Million GEL (1.5% GDP), increased budgetary appropriations and content of Economic Stimulus Plan (Ministry of Finance)</p>				<p>Quasi-state agencies could increase investments to compensate the shortfall left by private investors (EIU) The National Bank has sold reserves to support the (EIU) EBRD and IFC joint loan to the National Bank (\$200mn, 1.8% GDP) (EIU)</p>
-----------------------	---	--	--	--	--

<p>Hungary</p>	<p>Spending programmes have been created to maintain employment and protect jobs and to temporarily guarantee mortgage payments for unemployed people (IMF) Modernisation and subsidy programme for district heating schemes (EMU report) Somewhat higher income ceiling in the progressive personal income tax implies a slight decrease in tax burden.</p>	<p>June 2009: New fiscal plan that includes freezing public-sector wages and cutting elements of the pension system (WSJ): cut of the 13th monthly pension payment for some groups of pensioners; partly compensated for by suspension of the 13th monthly salary in the public sector and a nominal freeze of public wages; cuts in the operational costs of budgetary institutions; cuts in specific government programmes; postponement of the five-year pension correction programme and the regular indexation of family allowances (all these specific measures will amount to an estimated 1.05% of the GDP) (EMU report)</p>	<p>Moves towards introducing wealth-based taxation in 2010 (property tax) (EIU) Temporary 8% tax (surcharge) on the profits of energy companies for 2009 and 2010 (EMU report) VAT and excise duties increase from July 2009</p>	<p>Extension of deposit guarantees, following the European Commission proposals. Political guarantee of all bank deposits (IMF European Outlook) Approved measures for capital injections amounting to 1.1% of GDP (effective capital injections meant 0.1% of GDP), and 5.9% of GDP for approved guarantees on bank liabilities (have not been made effective) (European Commission)</p>	<p>\$25.5 bn (20% GDP) credit agreement from the IMF, EU, and World Bank in October 2008 (IMF) The IMF and the EU agreed to allow Hungary to raise its budget deficit to 3.9% of GDP in 2009 from an earlier 2.9% target, limiting the need for spending cuts. Fiscal responsibility low comprising fiscal rules (real debt should not increase in the medium term combined with expenditure ceilings and rules for the primary balance), three-year rolling budget planning and the establishment of an independent fiscal council (Baksay and Kiss 2009).</p>
-----------------------	--	--	--	--	---

<p>Latvia</p>	<p>Social spending to increase by 1.5 percent of GDP between 2008 and 2009, moving closer to EU/OECD averages (IMF). Increase in the minimum wage and increase in social payments (EMU report)</p>	<p>Significant budget cuts, in line with the conditions offset by the international lending programme. New budgetary cuts in June to come into force on July 1: public-sector wage bill to fall by 20% – for the second time this year –, pensions by 10%, and also parental benefits will be reduced. The whole budget will decrease by 10% (source: Les Echos, 18/6/09, Latvian Ministry of Finance). Administrative expenditures will be reduced, and boards are liquidated in state-owned capital companies (Ministry of Finance). The expenditure cuts approved in June mean 4% of GDP (FT)</p>	<p>Increases in VAT and excise duties (2.66% of GDP; EMU report), and reduction in income tax-exempt earning level (EIU, Ministry of Finance). Dividends from state-controlled corporations will be increased (Ministry of Finance)</p>	<p>November-08: Measures designed to save the JSC Parex Bank: a state guarantee covering certain existing and new loans, a one-year state deposit to support the bank's immediate liquidity needs, and subordinated loans to strengthen its capital base. May-09: The Latvian government will acquire newly issued ordinary shares and subordinated term debt (www.news.cn, www.eumonitor.net) 1.4% of GDP would be available for capital injections and 10.9% of GDP for bank liability guarantees (2.8% of GDP has been effectively used for granting guarantees). 6.1% of GDP has been used for effective liquidity interventions. Deposit guarantee up to €50,000 (EMU report)</p>	<p>€7.5bn (36% GDP) loan from the EU, IMF; World Bank, some individual EU countries and EBRD approved in Dec 2008/Jan 2009.</p>
----------------------	--	--	---	--	---

<p>Lithuania</p>	<p>In February of 2009 the Government adopted the Economic Recovery Plan, amounting to approximately 5 % of GDP with the aim of improving conditions for doing business, facilitating business access to borrowing and maintaining jobs. This economic recovery plan foresees accelerated use of EU financial assistance, easing of borrowing for the private sector through introduction of financial engineering and on-lending to organisations to implement public investment projects. The plan was framed with the support of loans from the European Investment Bank. (Ministry of Finance)</p> <p>Some incentives for enterprises have also been approved (tax credits, tax exemption for firms investing in technology modernisation, and shift of public investment programmes from long-term to short-term projects), as well as measures to facilitate access to liquidity, to promote exports and investments and to improve energy performance in buildings (Ministry of Economy). The personal income tax rate was cut (EMU report)</p>	<p>The initial 2009 state budget, through a comprehensive tax reform and expenditure reductions, was amended leading to savings of 4 percent of GDP. The 2009 budget was further reviewed in May 2009 with an additional consolidating result of 3.3 percent of GDP, and in July (second revision of the state budget) with consolidation of 0.3 percent of GDP. Package of saving measures in Social security funds are under consideration within Government and will be presented in autumn. (Ministry of Finance)</p> <p>The expenditure cuts included reducing public sector wages, investment and other current expenditure (European Commission). Reductions in contributions to pension funds, and in transfers to local governments (European Commission, EMU report)</p>	<p>The government formed in December 2008 adopted a substantial fiscal consolidation package that included both wide-ranging tax changes and major expenditure restraints. On the revenue side, the main measures included increases in VAT and excise duties (but a cut in personal income tax); increased corporate income tax and tax on dividends; most tax exemptions removed, broadening the tax base (European Commission), inclusion of some professions in the social security system (European Commission)</p>	<p>So far there has been no need for capital injections or liquidity or bank support. However, for the purpose of supporting or bailing out financial institutions, the following steps have been taken:</p> <ol style="list-style-type: none"> 1. The deposit insurance amount has been increased from EUR 22,000 to EUR 100,000, equivalent to the amount in litas by paying out 100 % of the insured deposit. 2. The draft Law on Financial Sector Sustainability has been prepared, the purpose of which is to enable the government, when necessary, to take measures such as state guarantees; redemption of bank assets; state involvement in bank capital; taking bank shares for public needs. They would be applied to banks whose financial situation could disturb the smooth functioning of the banking system. 3. The guarantee limit of LTL 3 billion for loans received by the banks or financial liabilities assumed otherwise, in order to strengthen financial stability and credibility of the banking system in Lithuania. 	<p>Speed up absorption of EU funds, simplifying companies' procedures (Ministry of Economy)</p> <p>Consultations with IMF and World Bank on structural reforms (healthcare, education, social security system, pensions and public sector).</p> <p>End of July 2009: Lithuania's new president has admitted that her country could be forced to seek help from the International Monetary Fund if it fails in efforts to raise more money from foreign capital markets to prop up its teetering economy.</p>
-------------------------	--	--	--	--	--

Macedonia FYR	<p>Three sets of measures: initial plan in November 2008 offering around €300m (4.6% GDP) in assistance, to companies with liquidity problems as well as to companies with good financial performances. The most important measure was the change to tax on profits. Starting from January 1st profit is taxed only if distributed to capital owners; second package adopted in March 2009, adopted an ambitious seven-year programme, worth €8bn (122% of estimated 2009 GDP, 17.5% a year if evenly distributed) for infrastructure projects, although much of that programme will now need to be postponed. Third set of measures adopted in April 2009, divided into three components: a revised budget; credit support to companies, including subsidised interest rates, co-financing and credit guarantees, and other measures to support companies, including measures to facilitate exports and imports, reduce costs, etc. Social security contribution reforms, which include cuts in social contributions paid by employers (EIU) as well as introduction of the gross wage system. However, this measure was not part of the anti-crisis packages but regular structural reform. (Ministry of Finance)</p>	<p>The revised budget (April) cut expenditure by 7% to match expected reduced revenue: reduction in current expenditure, postponement of planned increase of public administration wages, recruitment freeze in the administration until end 2009 (EIU) and reduction in expenditures with high imports component (mainly capital expenditures).</p>			
--------------------------	---	--	--	--	--

<p>Malta</p>	<p>No formal fiscal stimulus package, but targeted support, within the framework of EU regulations, to assist a number of domestic firms suffering from the slump in international trade, amounting to just €3.7m (0.06% GDP)</p> <p>The tourism industry, which is being hit especially hard by the economic slump, has also received some modest support, with the government having announced a capital repayment moratorium for up to one year on bank loans to hotel owners and operators, albeit on a case-by-case basis (EIU).</p> <p>The measures are aimed at increasing public investment in infrastructure and the environment, supporting manufacturing, tourism and SMEs, and households' purchasing power. (European Commission, EMU report)</p>	<p>Sharp reduction in state subsidies on LPG products (EIU) and other subsidies (1.4% of GDP) (EMU report), although this measure is not directly related to fiscal stimuli, but had a separate policy objective related to the redirection of expenditure towards other initiatives (Ministry of Finance).</p>	<p>Increase in excise duty and environmental measures (0.4% of GDP) (EMU report) , although this measure is not directly related to fiscal stimuli, but had a separate policy objective related to the redirection of expenditure towards other initiatives (Ministry of Finance)</p>	<p>The only measure so far undertaken to support the banks is an extension of Malta's deposit guarantee scheme to cover deposits up to €100,000 (EIU)</p>	
---------------------	--	---	---	---	--

Moldova	<p>Priority investment programmes will be maintained, and social security could be enhanced.</p> <p>Tax amnesty, zero tax on reinvested earnings applied even before 2009, reducing the interference of controlling bodies by reducing the number of inspections.</p> <p>Continued support for small and medium size enterprises.</p> <p>Imports for investment purposes are exempted from VAT.</p> <p>Further liberalisation of the economy. (Ministry of Finance, Central Bank)</p>	<p>Lack of an operating parliament in the first half of 2009 hindered decision making, but government implemented budget cuts under its responsibility and prepared proposals for the new parliament. The measures includes: cuts of recurrent spending by 20%, including administration spending; postponement of any new wage bill increasing; reduction of vacant positions and a recruitment freeze; revision of legislation in terms of the abolition of bonuses and privileges in the public sector; reduction of enrolment in higher and secondary special educational institutions; closure or integration of ineffective educational institutions. (Ministry of Finance)</p>	<p>Enhanced tax administration.</p>	<p>Financial system is not as badly hit because little western integration. Only three commercial banks are backed by foreign capital. The Central Bank of Moldova has increased liquidity to support the credit flow to businesses by commercial banks as well as reduced basic refinancing rate (from 21% in September 2008 to 11.5% in July 2009) and mandatory reserves of commercial banks (from 22% to 16%). (Ministry of Finance, Central Bank)</p>	<p>The IMF's three-year poverty reduction and growth facility expired in May-09 but it seems unlikely that any further lending will be approved until a new government has been formed (EIU).</p>
----------------	---	---	-------------------------------------	--	---

Montenegro	<p>For 2009, approximately €18 million (0.5% GDP) was budgeted for projects aimed at creating jobs (training programmes) and for stimulating entrepreneurship and self-employment. The government approved measures aimed at decreasing taxes, increasing net income, early redemption of internal debt, abolishment of certain fees, support to entrepreneurship, as well as readiness to provide long term financial assistance to domestic banks through cooperation with international financial institutions (Ministry of Finance)</p>	<p>Decrease public administration spending (no new public jobs, reduction of current spending) (Ministry of Finance).</p>		<p>The Central Bank of Montenegro will allow the commercial banks to use up to 20% of compulsory reserves for the purchase of treasury bills, increasing liquidity (Ministry of Finance)</p>	<p>Plans for cuts in tax and social contribution rates, and for increases in capital and social expenditure will substantially increase the deficit in 2009 and beyond, implying a risk of rapidly rising public debt (IMF).</p>
-------------------	---	---	--	--	--

<p>Poland</p>	<p>Poland introduced a stimulus package in November-08. Budget-related measures include personal income tax reduction, more favorable tax treatment of R&D spending, increased depreciation allowance for SMEs and new businesses and shortened period for VAT refunds. Other measures include state financial support offered to unemployed for the repayment of their mortgages. (MoF) Abolition of the top 40% rate of personal income tax in Jan-09 (EIU). The number of brackets have streamlined, leaving only two brackets, set at 18% and 32%. (MoF) Lower taxes on business (EMU report)</p>	<p>Various reductions in state budget expenditures amounting to some 21 billion PLN in 2009 – compared to the original amounts planned in the state budget for 2009. Measures include reduction in subsidies and replacement of early pensions with less costly "bridge pensions", reduction in government intermediate consumption. (MoF)</p>	<p>Increase in excise duties (0.2% of GDP) (EMU report)</p>	<p>Extension of deposit guarantees, following the European Commission proposals, up to €50,000 (EMU report).</p> <p>No capital injections, liquidity support or guarantee on bank liabilities have been approved (EMU report), though IMF(2009) indicates guarantees (beyond deposit guarantees).</p>	<p>Other measures included further reduction in administrative burdens for businesses and measures stimulating entrepreneurship and SME activities by improving the conditions for starting up new businesses. There were also steps taken to speed up the absorption of the EU funds, encourage PPP projects and simplify public procurement rules. (MoF) IMF flexible credit line in the amount of SDR 13,69 billion as a precautionary instrument only.</p>
----------------------	---	--	---	---	--

Romania	<p>Investment programmes will be maintained and social security enhanced. Ambitious capital expenditure programmes for infrastructure, education and health. The IMF-supported programme provides room for additional spending of RON 250 million (amounting to 0.05 percent of GDP) in 2009 and RON 500 million (0.1 percent of GDP) in 2010 to improve social protection for the most vulnerable groups during the economic downturn (EIU, IMF) Increase public investment by 1% of GDP (EMU report)</p>	<p>The budget was modified in April 2009 to include considerable fiscal tightening in the three final quarters of the year. Expenditure cuts were concentrated on the public sector wage bill and public sector consumption (all ministries will have budgetary cuts except for social spending) (EIU). Reductions are estimated in -2.2% of GDP (EMU report)</p>	<p>Flat-rate income and profit tax and VAT tax were unchanged, but introduction of a controversial 'lump sum' tax (regressive turnover tax) for companies (EIU) Increase of social contribution rate and excise duties. Update of the tax base for local property taxes (in total, 1% of GDP) (EMU report)</p>	<p>Extension of deposit guarantees up to €50,000, following the European Commission proposals (EMU report)</p>	<p>€20bn loan from the EU, IMF (Stand-by agreement), World Bank, EIB and EBRD approved in May 2009. Structural reforms in education and healthcare (source: EIU May-09) On-going process for fiscal responsibility law and unified public wages system.</p>
----------------	--	---	--	--	---

Russian Federation	<p>The federal expenditure target has been increased by 7% compared with the original level of the budget (EIU). 1.6 trillion roubles (4.1% of GDP) are earmarked for anti-crisis measures.</p>	<p>Expenditure cuts: general administration, various investment programmes – road building (EIU)</p>	<p>One-off injection from the investment income earned by stabilisation funds (January) (EIU)</p>	<p>Capital injections to banks (EIU) Russian government capital has gone primarily to larger, more systemically important banks as the government tries to restart lending to consumers and companies. Although Russia has over 1000 banks, 100 of them account for 90% of the transactions (Moody's). The reserve requirement, which was cut to just 0.5% in October 2008, was raised to 1.5% in June and is scheduled to rise to 2.5% in August. This compares with a reserve requirement of 8% before the cuts started, so the situation is still far from normal (EIU).</p>	<p>The Russian Central Bank and the Bank for Economic development also will provide money for government anti-crisis measures (EIU) First budgetary deficit since 1999. The deficit will be financed by drawing on the reserve fund, which manages over \$100 billion and is one of Russia's two sovereign wealth funds (RGE Monitor), but Russia also plans to return to the international bond market in 2010 (EIU). Exchange rate defence: 1/3 of foreign exchange reserves were lost. After that the rouble depreciated by about 20% All fiscal rules were cancelled – to be restored later. Pressure to launch budget reforms discussed but not implemented for about a decade.</p>
---------------------------	---	--	---	---	--

Serbia	<p>Increase in pensions in late 2008. A stimulus package includes a cheap lending facility to Serbian companies that do not lay off workers, and for lending to stimulate exports and to grant a new consumer credit line for the purchase of construction materials (EIU)</p>	<p>The fiscal deficit targets for 2009–10 have been raised, but additional fiscal adjustment measures—mainly falling on recurrent spending—are also being taken (IMF)</p>	<p>Tax increases have been rejected by the government (EIU)</p>		<p>Stand-by agreement with the IMF (January 2009). In May, the agreement was extended (until March-11) and increased up to €2.9 bn (10% of Serbia's GDP).</p> <p>The government's unilateral implementation of the interim trade agreement with the EU led to a decline in customs collections (EIU)</p>
---------------	--	---	---	--	--

<p>Slovak Republic</p>	<p>0.5% of GDP for anti-crisis measures, counterbalanced by savings in other areas (EMU report). Nov 2008 plan was aimed primarily at accelerating public infrastructure investments (also because of difficulties in finding private financing), energy savings and energy security, reduced taxes for low-income employees, simpler business bureaucratic procedures, legal reinforcement of EIB instruments, strengthening employment services, and speeding up payments by the state to businesses (Ministry of Finance) Measures: temporary increase in tax-free income, changes in welfare measures, subsidy for the purchase of new cars. The government may also need to provide budget financing to the social insurer (EIU).</p> <p>February 2009: two other stimulus packages, primarily focusing on the labour market and on boosting demand (Ministry of Finance)</p>	<p>Cut expenditure by savings on state consumption, merging ministries and abolishing some regional state administration offices (EIU)</p>	<p>Increased excise duties on tobacco and changes in social contributions and capital transfers from the second pension pillar (total: 0.6% GDP) (EMU report)</p>	<p>From 1 January 2009 foreign bank branches that accept deposits in the Slovak Republic under an EU single banking licence are permitted to join the Slovak deposit protection system. The measure of the National Bank of Slovakia on the liquidity of banks and branches of foreign banks, in effect from 15 November 2008, introduced more stringent requirements on liquidity management, especially by means of a new liquidity indicator (Ministry of Finance) Extension of deposit guarantees, following the European Commission proposals (unlimited for physical persons and some categories of legal persons) (IMF European Outlook)</p> <p>No financial support to the banking sector.</p>	<p>Stimulus plan measures approved in Nov-08 included improved absorption of EU funds. Plan followed by two other stimulus packages.</p>
-------------------------------	--	--	---	--	--

Slovenia	<p>Recovery package adopted in Dec 2008: Offset some of the shortfall in economic activity by undertaking infrastructure projects and providing liquidity to companies (EIU)</p> <p>Three anti-crisis packages have been implemented. Among the measures:</p> <ul style="list-style-type: none"> - Elimination of payroll tax, reduction of the corporate tax rate, and additional investment allowance for companies and sole proprietors (1% GDP) (EMU report) - Wage subsidy for shorter hours worked, support for SMEs and start-up companies, subsidies for investment in new technologies and R&D (EMU report). Total estimated: 0.9% of GDP - Implementation of a decision to eliminate 'wage disparities' in public sector - Increases in specific transfers in kind (EMU report) 	Measures to restrain the wage bill (EMU report)	Increase in excise duties (0.9% of GDP) (EMU report)	The government will make available €12bn (30% GDP) in guarantees for bank loans, as well as temporary unlimited guarantees for all retail bank deposits and savings.	<p>Consultations on structural reforms (healthcare, pensions, social security system, labour market and public sector).</p> <p>Implementation, if agreement is reached, will not be immediate (Slovenia is among the group of countries that will have to increase their age-related public expenditure by the most) (EIU).</p>
-----------------	---	---	--	--	---

<p>Turkey</p>	<p>Since May 2008, various measures to boost employment and regional development through public investment, to increase credit to SMEs, increased budget transfers to local governments, VAT reductions, and increased subsidies (Ministry of Finance). Various tax cuts for individuals, businesses and consumers, and cuts in social security contributions. New stimulus measures have been announced in June 2009 with a strong regional dimension (classifying provinces into four regions and imposing different tax and subsidy incentives across regions). Incentives include corporate tax cuts, exemptions for companies paying social security premiums for new workers, interest rate subsidies, increased public-sector hiring, regional investment incentives for 12 specific sectors, extension of vocational education (EIU, Ministry of Finance).</p>			<p>No serious problem in the banking system.</p>	<p>Discussions on a possible stand-by loan agreement with the IMF, but no apparent progress. New fiscal rule in 2010.</p>
----------------------	--	--	--	--	---

<p>Ukraine</p>	<p>The Fund-supported programme maintained the inflation indexing of a social spending (0.8% of GDP). (Ministry of Finance) Measures include (i) protection of the poor against gas price increases through the life-line tariff and housing and utility allowance; (ii) protection of the unemployed through the unemployment insurance system; and (iii) expansion of two well-targeted social safety programmes identified by the World Bank (IMF)</p>	<p>A sharp tightening of fiscal policy is expected in 2009, although the IMF has agreed to a deficit of 6% of GDP instead of the initially planned 4%, due to worst than expected output decline (IMF). Much of the fiscal tightening is likely to come through reining in expenditure on goods and services in non-priority areas (EIU)</p>	<p>Increased pension contributions by private entrepreneurs; higher electricity and gas tariffs for those that consume more (EIU)</p>	<p>Bank recapitalisation programme: the state will receive full control over the recapitalised bank</p>	<p>IMF Stand-by agreement approved in November 2008 (\$16.4 bn – 9.1% of GDP). (IMF) The authorities agreed to the introduction of a floating exchange rate, to 'help the economy adjust to external shocks, discouraging dollarisation and excessive risk-taking by unhedged borrowers, and allowing monetary policy to focus on inflation objectives', tightening monetary policy to avoid excessive exchange rate depreciation, if needed (IMF)</p>
-----------------------	---	--	---	---	--

Discussion Papers published in 2009

- Judit KARSAI: The End of the Golden Age - The Developments of the Venture Capital and Private Equity Industry in Central and Eastern Europe. MT-DP. 2009/1
- András SIMONOVITS: When and How to Subsidize Tax-Favored Retirement Accounts? MT-DP.2009/2
- Mária CSANÁDI: The "Chinese Style Reforms" and the Hungarian "Goulash Communism". MT-DP. 2009/3
- Mária CSANÁDI: The Metamorphosis of the Communist Party: from Entity to System and from System towards an Entity. MT-DP. 2009/4
- Mária CSANÁDI – Hairong LAI – Ferenc GYURIS: Global Crisis and its Implications on the Political Transformation in China. MT-DP. 2009/5
- DARVAS Zsolt - SZAPÁRY György: Árszínvonal-konvergencia az új EU tagországokban: egy panel-regressziós modell eredményei. MT-DP. 2009/6
- KÜRTI Andrea - KOZAK Anita - SERES Antal - SZABÓ Márton: Mezőgazdasági kisárutermelők nagy kereskedelmi láncoknak történő beszállítása a nagyvevői igények alapján a zöldség-gyümölcs ágazatban. MT-DP.2009/7
- András SIMONOVITS: Hungarian Pension System and its Reform. MT-DP.2009/8
- Balázs MURAKÖZY - Gábor BÉKÉS: Temporary Trade. MT-DP. 2009/9
- Alan AHEARNE - Herbert BRÜCKER - Zsolt DARVAS - Jakob von WEIZSÄCKER: Cyclical Dimensions of Labour Mobility after EU Enlargement. MT-DP. 2009/10
- Max GILLMAN - Michal KEJAK: Inflation, Investment and Growth: a Money and Banking Approach. MT-DP. 2009/11
- Max GILLMAN - Mark N. HARRIS: The Effect of Inflation on Growth: Evidence from a Panel of Transition Countries. MT-DP. 2009/12
- Zsolt DARVAS: Monetary Transmission in Three Central European Economies: Evidence from Time-Varying Coefficient Vector Autoregressions. MT-DP. 2009/13
- Carlo ALTOMONTE - Gábor BÉKÉS: Trade Complexity and Productivity. MT-DP. 2009/14
- András SIMONOVITS: A Simple Model of Tax-Favored Retirement Accounts. MT-DP. 2009/15
- Ádám SZENTPÉTERI - Álmos TELEGDY: Political Selection of Firms into Privatization Programs. Evidence from Romanian Comprehensive Data. MT-DP. 2009/16
- András SIMONOVITS: Pension Reforms in an Aging Society: A Fully Displayed Cohort Model. MT-DP. 2009/17
- VALENTINY Pál-KISS Károly Miklós: A nélkülözhetetlen eszközök értelmezése és a postai szolgáltatások. MT-DP. 2009/18
- Gábor BÉKÉS - Péter HARASZTOSI - Balázs MURAKÖZY: Firms and Products in International Trade: Data and Patterns for Hungary. MT-DP. 2009/19
- Judit KARSAI: Áldás vagy átok? A magántőke-befektetések hatása a gazdaságra. MT-DP. 2009/20
- László HALPERN-Balázs MURAKÖZY: Innovation, Productivity and Exports: the Case of Hungary. MT-DP. 2009/21
- Zsuzsa KAPITÁNY: Non-employment, Ill-being and Subjective Well-being. MT-DP. 2009/22
- Szilárd BENK-Max GILLMAN-Michal KEJAK: A Banking Explanation of the US Velocity of Money: 1919-2004. MT-DP. 2009/23