Growth-promoting fiscal consolidations: Lessons from international experience

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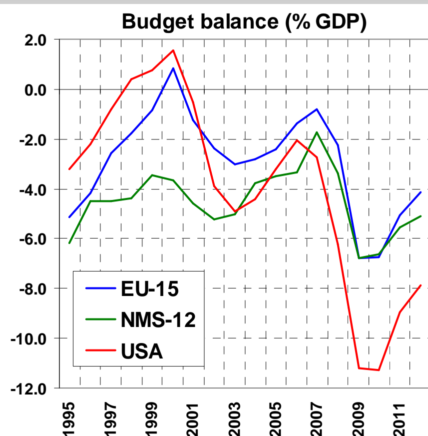
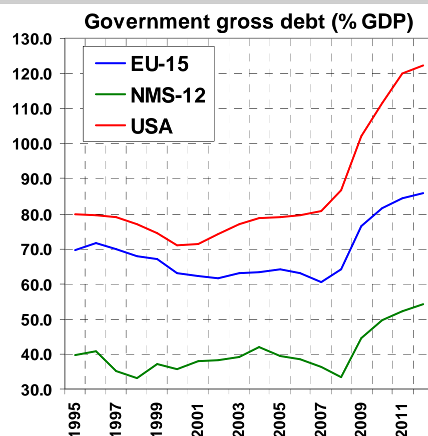
Fiscal challenges in the aftermath of the crisis





EU-15: 15 members of the EU before 2004

NMS-12: 12 new EU members that joined in 2004-07

Note: US debt includes all three levels of government (federal, state, local). N.B.: debt figures in other publications (eg IMF, OECD, EC) consider federal debt only.

Source: Author’s calculation using data from the Autumn 2010 ECFIN forecasts, except for US debt, which is from http://www.usgovernmentspending.com

Questions

1. How do fiscal adjustments work?
2. Do fiscal consolidations always have contractionary effects?
3. Are fiscal consolidations able to promote growth?
4. Do fiscal consolidations lead to reductions of the debt-to-GDP ratio?
5. What are the implications for today?

1. How do fiscal adjustments work?

- Different models deliver different answers
- Ricardian equivalence: zero impact, because changes in precautionary private saving fully offset changes in fiscal policy (assumptions: forward looking agents with no liquidity constraints)
- (Some part of) the world is non-Ricardian, but which way?
  - Keynesian effects: fiscal consolidation *contracts* economic activity
  - Non-Keynesian effects: fiscal consolidation *boosts* economic activity

1. How do fiscal adjustments work?, cont'd

Keynesian effects

- In a model with sticky prices and wages a fiscal contraction has a temporary contractionary effect through an aggregate demand channel
- Multiplier: spending cuts are more recessionary than tax increases
- Impacts depend on capacity utilization level, market interest rate response, exchange rate changes

1. How do fiscal adjustments work?, cont'd

Non-Keynesian effects:

- The demand side
  - *Wealth effects* on consumption (expenditure cut or tax hike reduces future tax burden and lessens uncertainty, thereby generating a positive wealth effect and reduce the need for precautionary saving, which will boost consumption)
  - *Credibility effects* (reduction in risk/default premium, especially in highly indebted countries, stimulates consumption and investment)
  - Interest rate fall also boosts stock and bond prices thereby amplifying the wealth effect and also encouraging investment

1. How do fiscal adjustments work?, cont'd

Non-Keynesian effects:

- The supply side
  - *Investment growth* could increase potential output growth
  - *Better labor market performance* (due to less distortions)
  - But: *Labor supply* may shrink (wealth effect on consumption may reduce labor supply; labor tax –if used– also reduces supply)
  - *Labor market structure* (negative effect of taxes on aggregate labor supply in unionized labor markets may be larger)

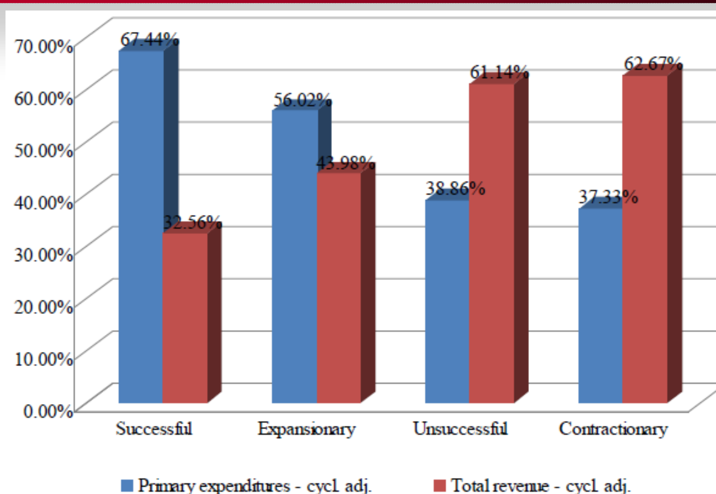
2. Do fiscal consolidations always have contractionary effects?

- Giavazzi and Pagano (1990) observed that growth accelerated after the significant fiscal retrenchment in Denmark (83-86) and Ireland (86-89)
- In both cases the fiscal measures undertaken to reduce the deficit were decisive and on the spending side
- Large literature followed (eg McDermott and Wescott 1996; Alesina and Perotti 1995; Alesina and Ardagna 1998; Giavazzi, Jappelli and Pagano 2000; Von Hagen, Hughes Hallett, and Strauch 2001; Ardagna 2004; Giudice, Turrini, int't Veld 2007; Alesina 2010)
- In summary, fiscal adjustments are not always associated with (some authors argue 'do cause') recessions

3. Are fiscal consolidations able to promote growth?

- Large literature studied the conditions under which fiscal retrenchment can promote growth
  - Simulations from macro models
  - Econometric studies
- Consensus emerged that composition matters:
- Spending cuts are much more effective than tax increases in stabilizing debt and avoiding economic downturns
- In several episodes, spending cuts have been associated with economic expansions
- Within spending cuts: more emphasis on public sector wages and entitlements seems more beneficiary

E.g., Alesina & Ardagna (2010): Contribution of primary expenditure and total revenue to fiscal consolidations



The chart is based on 107 episodes of fiscal consolidations in OECD countries during 1970-2007

Other factors that help consolidations be expansionary

- Negative output gap (eg Giudice, Turrini, int't Veld, 2007)
- More recently the compositional differences between successful and unsuccessful consolidations have vanished
- Other discriminating factors are fiscal governance and structural reforms (OECD 2010; Larch and Turrini 2008)
- Aftermath of financial crises: consolidations tend to be less successful

A cautious note on the literature

- Most empirical papers measured fiscal consolidation with the change in the '*cyclically adjusted primary balance'* (CAPB) as a % of GDP ...

- ... even though problems with CAPB are generally recognized (eg Mohr, Morris in Larch, 2009):
  - Measurement of output gap
  - Responsiveness of revenue and expenditure basis to output
  - The behavior of tax revenues in relation to their bases

- Sometimes the change in CAPB as a measure of fiscal consolidation is completely misleading (see next two slides for a concrete example)

A cautious note on the literature, cont'd

- Change in CAPB (cyclically adjusted primary balance, % of GDP) as a measure of consolidation
- Look at **Latvia**:

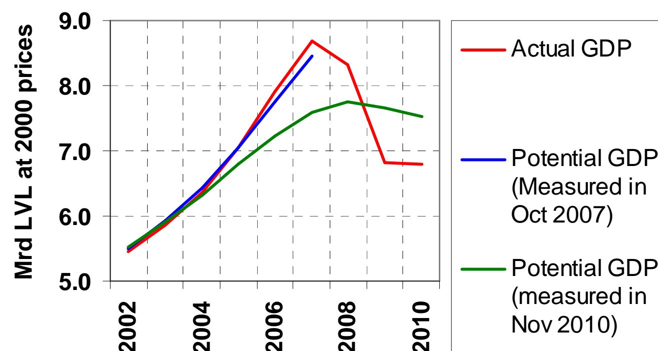
		2008	2009	2010
Cyclically adjusted primary balance	(% potential GDP)	-5.6	-5.7	-3.3
Non-interest expenditures	(% real change form previous year	3.3	-8.9	-4.0
Revenues	(% real change form previous year	-6.4	-20.2	3.5
GDP	(% real change form previous year	-4.2	-18.0	-0.4

Source: DG EFCIN Autumn 2010 forecast

According to this measure, there was no fiscal adjustment in 2009, even though expenditures fell by 8.9% in real terms (and 10.2% in nominal terms) despite a 18.0% fall in GDP

A cautious note on the literature, cont'd

- Serious problems with potential output:
  - Real time measurement
  - Concept (especially at a time of a crisis)
- Look at **Latvia**:



Source: DG ECFIN Autumn 2007 and Autumn 2010 forecasts

A cautious note on the literature, cont'd

- IMF (2010, WEO Oct, Ch 3) raises other concerns:
  - Countries sometimes postpone consolidations until the economy recovers → consolidation will be associated with good economic outcomes
  - If a country is committed to deficit reduction path and the economy falls into recession → it may implement further measures, associating fiscal consolidations with unfavorable economic outcomes
  - Focus on sustained consolidations (method frequently adopted in the literature) could bias toward finding expansionary effects: counties may sustain consolidation if economy recovers, but may suspend in case on unfavorable outcomes

IMF (2010, October WEO, Ch 3)

- 'Action-based approach': looking at actual tax hikes and expenditure cuts
- Key result: fiscal consolidation is typically contractionary in the short term. But three key factors shape the outcomes:
  - *Interest rates and exchange rates:* can play a mitigating role
  - *Composition:* spending-based adjustments are less contractionary than tax-based adjustments
  - *Pre-consolidation country risk*: deficit cuts preceded by high sovereign risk are less contractionary
- Denmark (1983) and Ireland (1987): indeed experienced expansionary fiscal consolidations, but are atypical examples among the 15 advanced countries studied
- Long term: reduction in government debt raises output as real interest rates decline that also permits cuts in distortionary taxes

4. Do fiscal consolidations lead to reductions of the debt-to-GDP ratio?

- Success in debt reduction:
  - Size of adjustment (large primary surpluses)
  - Composition (similar factors to expansionary consolidations): expenditure cuts, especially on transfers and public wages, increase the likelihood on success
  - Duration (ie sustained efforts more successful)
- Baldacci et al (2010) focus on post-banking crisis debt reductions:
  - confirm previous findings
  - but also finds a role for revenues
  - higher private investment (which can be the result of growth-enhancing structural reforms) increase success
- Barrios et al (2010) asses the role of financial crises:
  - In the presence of a systemic financial crisis, the repair of the banking sector is a precondition for a fiscal consolidation to succeed in reducing debt levels
  - Even after banking sector repair, fiscal consolidations are less successful than in the absence of financial crises

5. What are the implications for today?

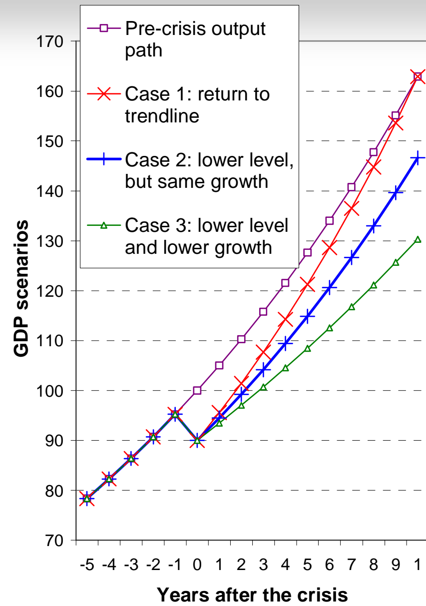
- 5.1 Is fiscal consolidation needed?
  - Growth and interest rate trajectories
  - Safe level of public debt
  - Contingent liabilities
  - Private deleveraging
- 5.2 If so: composition of adjustment
- 5.3 Fiscal/budgetary institutions
- 5.4 Accompanying structural reforms
- 5.5 Euro crisis

5.1 Is fiscal consolidation needed?

Lot depends on growth and interest rates

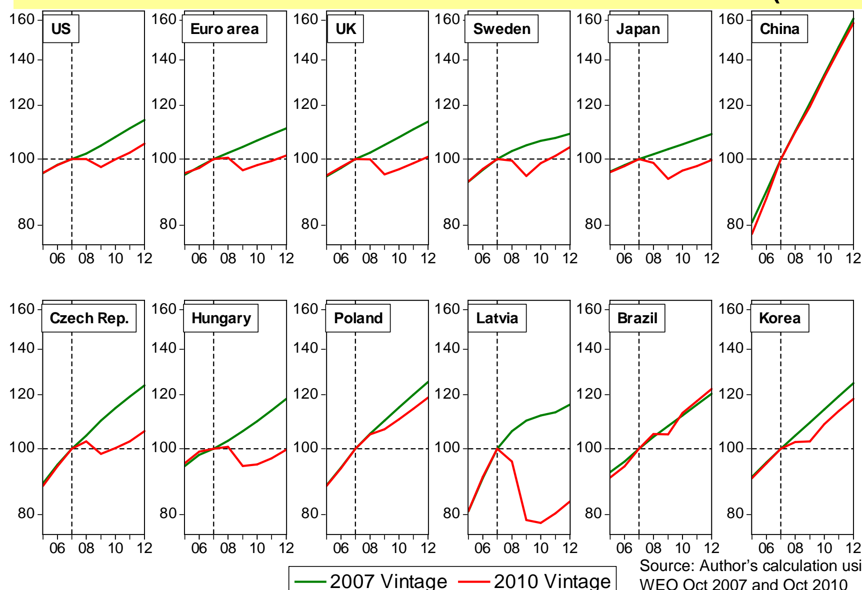
Output prospects - three options:

1. downturn in ***purely cyclical*** and GDP will return to the pre-crisis trendline
2. part of the downturn in permanent, but the potential ***growth rate*** is unaffected
3. part of the downturn in permanent **and** the potential growth rate is also reduced



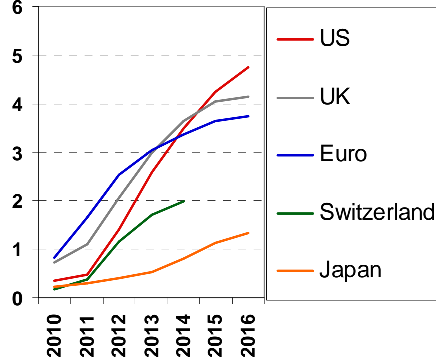
Output will not return to pre-crisis trajectory

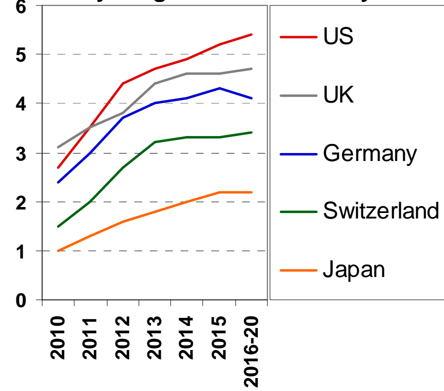
GDP forecasts to 2012: October 2007 versus October 2010 (2007=100)



Source: Author's calculation using IMF WEO Oct 2007 and Oct 2010

Interest rates will not remain low forever



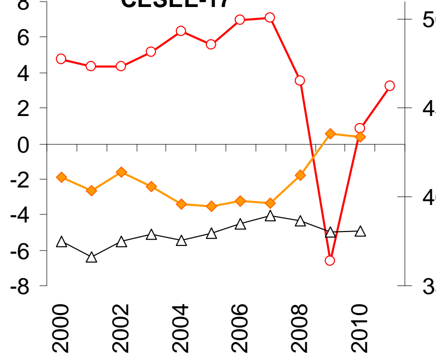


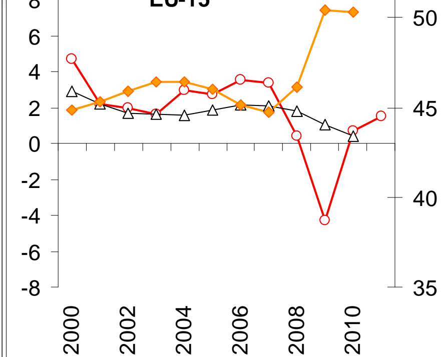
Sources:

* 3-month interest rates: exchange-traded futures from Bloomberg (downloaded on 28 March 2011)

* 10-year government bond yields: Consensus Economics forecasts (October 2010)

Expenditure and revenue ratios, GDP growth





Real GDP growth rate

Revenues/GDP (right scale)

Expenditures/GDP (right scale)

Implications of the crisis

- *GDP fell* (apart from a few emerging countries):
  - Part of this fall is likely a permanent output loss
  - Part is a negative output gap that will correct
- *GDP growth* will be less than before the crisis
- *Interest rates* will increase both in nominal and real terms in major advanced countries
- *Debt crisis* in a few euro area members increased market sensitivity and will likely lead to more differentiation across governments elsewhere as well
- *Expenditure/GDP ratio* increased is most countries (even in the event of significant consolidation) → when output fall is permanent, this creates a structural deficit

Safe level of public debt

- Theory: no clear benchmark for the optimal (or 'unsustainable') level of public debt
- Emprics:
  - Reinhart and Rogoff (2010): debt above 90% is associated with lower GDP growth
  - Confirmed by Checherita and Rother (2010) and Kumar and Woo (2010)
  - Threshold is lower for emerging countries
- Rother, Schuknecht and Stark (2010):
  - Implications of macroeconomic and financial stability, risk aversion
  - Empirical results refer to periods when only a few countries had debt above 90% debt → more advanced countries have higher debt levels now, and even more have large deficits
  - Fiscal space is needed to accommodate eventual future shocks

What is the alarming level of government debt?

Government debt/GDP levels in 2007 in CEE countries that turned to IMF in 2008/09

Country	Debt/GDP
Armenia	16
Bosnia and Herzegovina	19
Georgia	22
Hungary	66
Latvia	9
Romania	13
Serbia	34
Ukraine	13

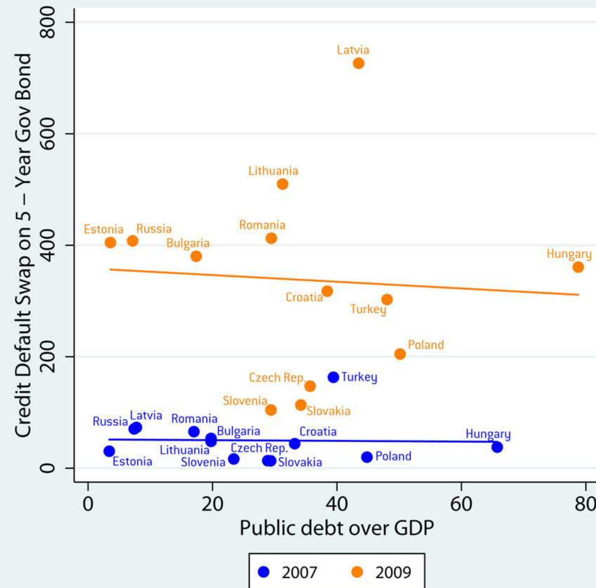
What is the alarming level of government debt?

Government debt/GDP levels in the year before some recent government defaults

Default	Debt/GDP
Argentina 2002	45
Russia 1998	54
Ukraine 1998	37

Source: Sturzenegger and Zettelmeyer, 2006

In CEE, risk of government default was not related to government debt



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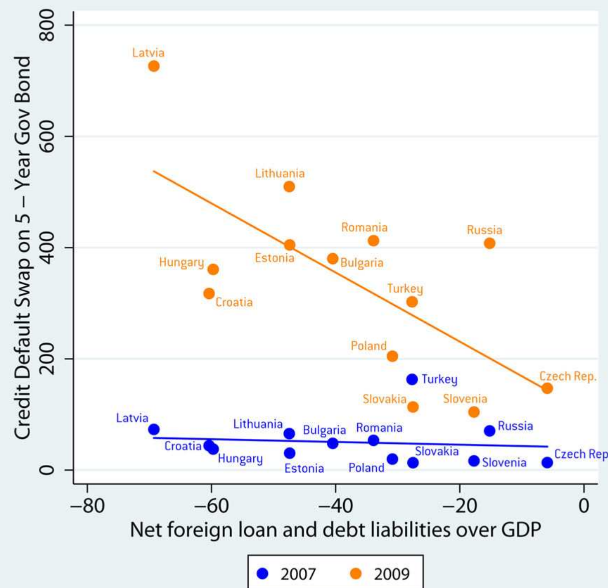
In CEE, risk of government default was related to external debt in 2009



In a many CEE countries, external debt mainly comprised private debt

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Contingent liabilities

- Short/medium run: A significant risk to fiscal sustainability lies in private debt, wherever excessive
  - Additional direct cost of bank support
  - Private debt overhang and the consequent deleveraging is a drag on growth
- Long run: aging (health-care and pensions)
  - Pension spending increases (% of GDP) in some countries from 2010 to 2050 (OECD 2011):
    - Greece: 11.6 → 24.0
    - Germany: 10.2 → 12.2
    - Netherlands: 6.5 → 10.3
    - Czech Republic: 7.1 → 10.2
    - Poland: 10.8 → 9.1
    - USA: 4.6 → 4.8

So, is fiscal consolidation needed?

- The answer is likely yes in the short term, and surely yes in the medium/long term, for all countries, but the timing and the required magnitude is very much country-specific and depend on:
  - Debt level
  - The shock to the output level and the expected change in the interest rate-growth rate differential
  - Increase in primary expenditure/GDP ratio
  - Private deleveraging
  - Further risks in the private debt; other contingent liabilities
- Some countries have no choice (eg Greece and Ireland, irrespective whether they default or not)
- But in cases where fiscal space and credibility remained and ongoing private sector deleveraging is significant: premature fiscal consolidation should be avoided

5.2 Composition of fiscal adjustment

- Clear emphasis on spending cuts as opposed to tax increases
- Spending cuts: politically more difficult ones (such as wages and entitlements) contribute more to success and boost credibility more
- Jens Henriksson (2007) - Lesson six (from his *Ten lessons of about budget consolidation*) „*Act structurally but be consistent*": spending cuts should apply to all items, yet education should be preserved and poverty traps be avoided

5.3 Fiscal/budgetary institutions

- Darvas and Kostyleva (2011) develop a *budgetary discipline index* that consider a set of institutional features considering, the preparation, authorization and implementation phases of budgeting
- Econometric evidence for CESEE countries: higher index is associated with a smaller increase in debt/GDP ratio and better budget balance (even when controlling for the interest rate-growth rate differential, initial level of debt, and overall institutional quality)
- Larch and Turrini (2008): the presence, coverage and strength of numerical fiscal rules and budgetary procedures are conducive to the success of consolidation

5.4 Accompanying structural reforms

- Empirical evidence suggests that the success of fiscal consolidations is increased with structural reforms (eg Alesina and Ardagna 1998, Larch and Turrini 2008)
- Measures improving the functioning of product and labor markets help consolidations via two channels:
  - Directly mitigating public expenditures
  - Spurring economic activity

5.5 Implications of euro-area crisis

Policy issues (long been known, but not well addressed):

- Public finance: sustainability, contingent liabilities; pricing of default; crisis resolution;
- Excessive imbalances; competitiveness crises; lack of sufficiently binding mechanisms for economic policy coordination;
- Asset price divergences and private sector debt accumulation;
- Discrepancy between banking sector integration and the weaknesses of the EU framework for regulation, supervision, and crisis resolution

➢ All these issues and their economic consequences complicate fiscal adjustment in a couple of countries, yet the euro-area will not break up

Conclusions

- Fiscal consolidations do not always have contractionary effects and can even promote growth; yet there are concerns with empirical methodologies
- Key to success: (a) The composition of adjustment, (b) Accompanying structural reforms, (c) Fiscal/budgetary intuitions
- Is fiscal consolidation needed now? Likely yes in the short term, and surely yes in the medium/long term, for all countries, but country specific factors matter a lot in the timing and magnitude of adjustments
- When the shock is private deleveraging (especially in the aftermath of a financial crisis) and this is expected to continue at a significant scale: non-Keynesian effects of even well designed fiscal consolidations can be weaker
- In any case prudent policies based on conservative growth and interest rate assumptions are needed
- Low public debt is the greatest contribution of fiscal policy to growth