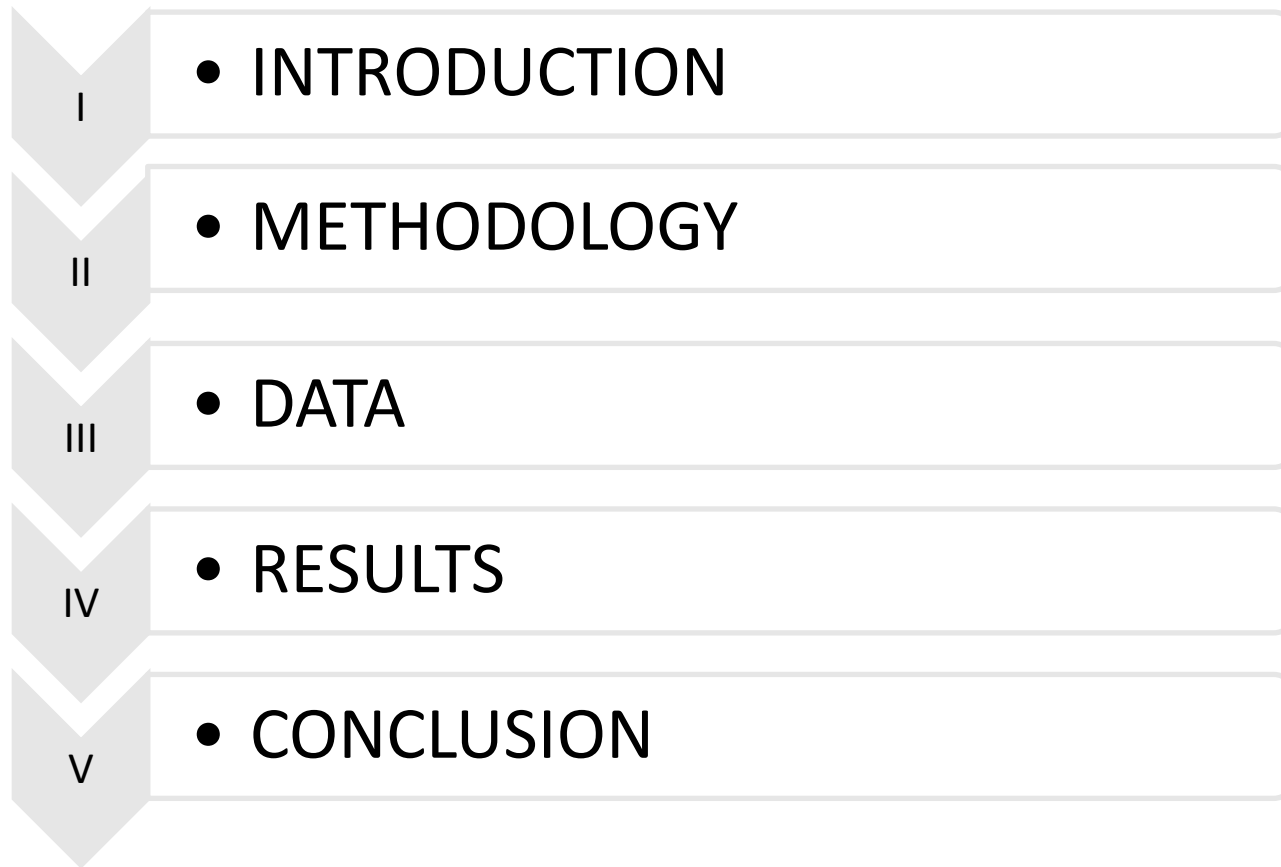


ESTIMATING FISCAL SUSTAINABILITY

Supervisor: Professor Moisă Altăr

Author: Daniel Rusu

PRESENTATION STRUCTURE:



I. INTRODUCTION

A. MOTIVATION:

- “Analysing prospective government debt developments and risks to fiscal sustainability is crucial at the current juncture for euro-area countries and the EU as a whole to be able to formulate appropriate policy responses and restore **credibility and confidence**. High levels of public debt and/or significant budget deficits need to be addressed resolutely and promptly so as to ensure the stability of public finances. Failing to do so might prompt strong and sudden policy adjustments at some point.” (Fiscal Sustainability Report, European Commission, 2012)
- The Fiscal Compact (TSCG)
 - Signed by 25 EU Member States (except Czech Republic and UK)
 - A revised and stricter Stability and Growth Pact
- The European Financial Stability Facility and the European Financial Stabilization Mechanism (EFSM)
- The European Stability Mechanism (ESM)

I. INTRODUCTION

B. LITERATURE REFERENCE:

- Absence of sustainability would be evident when the State's contractual liabilities have reached an excessive proportion of the national income. At this moment, it might become obvious that the claims of bondholders are more than the tax payers can support" (Keynes, 1923).
- A budget process is sustainable if the expected discounted value of the implied future stock of debt converges to zero (Trehan and Walsh, 1991).
- Validating the IBC is a necessary assumption for long-term fiscal sustainability, but the sustainable debt-to-GDP ratio might be proven to be unsustainable once a certain shock would occur (Mendoza and Oviedo, 2004, 2007).
- Even if one finds that historical data seem to satisfy the IBC, one should not take for granted that lenders will necessarily extend credit. Lenders may well impose additional constraints to discourage opportunistic default (upper bounds on debt and deficits) (Henning Bohn, 2007, 2013) and to integrate into their perception the fiscal robustness to macroeconomic uncertainty.

II. METHODOLOGY

General Overview

- Assessing long term fiscal sustainability hypothesis under an analytical framework based on the necessary condition of validating the intertemporal budget constraint (IBC).
- Integrating macroeconomic uncertainty into the steady-state analytical framework and assessing the necessary non-interest public outlays-to-GDP ratios adjustments (CIFA) necessary in order to sustain fiscal solvency in a fiscal crisis framework.
- Elaborating the resulting adjustment coefficients on a cross country comparison analysis.
- Referring the resulting adjustment coefficients and non-interest government expenditure-to-GDP ratio to country specific probability distributions.
- Integrating a country-specific political structure analysis focused on variables that impact a country's political capacity of implementing the non-interest public outlays adjustments in order to sustain fiscal solvency condition in a fiscal crisis situation.
- Assessing overall results.

II. METHODOLOGY

A. LONG TERM SUSTAINABILITY

- Bharat Trehan and Carl E. Walsh concluded in the paper published in 1991 that *a necessary and sufficient condition for one country to respect the IBC is that the net of interest deficit and public debt should be cointegrated (if there exists a linear combination of debt and net of interest deficit that is stationary). (Testing Intertemporal Budget Constraints: Theory and Applications to U.S. Federal Budget and Current Account Deficits; Bharat Trehan and Carl E. Walsh; Journal of Money, Credit and Banking, Vol. 23, No. 2, May 1991)*

- **Proof:**

The general budget identity considered:

$$b_t - b_{t-1} = r_t b_{t-1} + d_t \quad (1)$$

Variables:

b_t - real outstanding public debt and the end of period “t”

r_t - real rate of interest during period “t”

$r_t * b_{t-1}$ - public debt service

d_t - net-of-interest deficit at the end of period “t”

I_{t-1} - information set of private agents at the beginning of period “t”

$E(r_{t+i} \mid I_{t-1}) = r$, for all $i \geq 0$

$1 + r_t = R_t$

$E(R_{t+i} \mid I_{t-1}) = R$, for all $i \geq 0$

$E(b_{t-1} \mid I_{t-1}) = b_{t-1}$, condition not applicable to r_t nor d_t

II. METHODOLOGY

A. LONG TERM SUSTAINABILITY

Recursively eliminating future values of the public debt and taking expectations of equation (1) yields the intertemporal budget constraint:

$$b_{t-1} = - \sum_{j=0}^{\infty} R^{-(j+1)} E(d_{t+j} | I_{t-1}) + \lim_{j \rightarrow \infty} R^{-(j+1)} E(b_{t+j} | I_{t-1}). \quad (2)$$

- Under the hypothesis of present value budget balance, the following term from equation (2) must equal zero:

$$\lim_{j \rightarrow \infty} R^{-(j+1)} E(b_{t+j} | I_{t-1}) = 0. \quad (3)$$

- If (3) is satisfied, equation (2) implies that the current outstanding public debt must equal the present discounted value of current and expected future net-of-interest surpluses and hence the existing debt-output ratio can be considered sustainable.

One can make further assumptions:

$$(1 - \gamma L) d_t = A(L) \varepsilon_t \quad (4)$$

is a mean zero stationary stochastic process with $0 \leq \gamma < R$

II. METHODOLOGY

A. LONG TERM SUSTAINABILITY

- d_t and b_{t-1} are cointegrated so that we can write:

$$b_{t-1} - \alpha d_t = B(L) \varepsilon_t \quad (5)$$

, $B(L) \varepsilon_t$ being a stationary stochastic process and α being a constant

- Quasi – differencing (5) will further demonstrate that b_{t-1} can also be written as a stationary stochastic process $C(L) * \xi_t$ with the same order of integration with d_t :

$$(1 - \gamma L) b_{t-1} = C(L) \varepsilon_t \quad (6)$$

- Recursively replacing the value of b_{t+j} with in equation (3) (Non-Ponzi Game Condition) with the resulting equalities from (6) we are able to show that:

$$\lim_{j \rightarrow \infty} R^{-(j+1)} E(b_{t+j} | I_{t+1}) = \lim_{j \rightarrow \infty} \left(\frac{\gamma}{R}\right)^{j+1} b_{t-1} + \lim_{j \rightarrow \infty} \sum_{i=0}^j \left(\gamma^i / R^{j+1}\right) E(C(L) \varepsilon_{t+j-i} | I_{t+1}) = 0.$$

, for any $0 \leq \gamma \leq R$. (7)

- Hence, the budget balance holds is b_{t-1} and d_t are cointegrated.
- Conclusion: if d ($0 \leq \gamma < 1$) is a stationary stochastic process, the intertemporal budget balance holds if and only if b is also stationary. If d is nonstationary ($1 \leq \gamma \leq R$), b must also be nonstationary and there must exist a linear combination of **b** and **d** that is stationary.

II. METHODOLOGY

B. FISCAL SOLVENCY UNDER UNCERTAINTY

• Enrique G. Mendoza and P. Marcelo Oviedo (*Public Debt, Fiscal Solvency and Macroeconomic Uncertainty in Latin America*, NBER, 2004) proposed a Natural Debt Limit model, on the basic principle that a government:

- Averse to a collapse in its public outlays and
- Facing revenue uncertainty
- Will impose on itself a „natural debt limit” defined by the growth-adjusted annuity value of the primary balance in a state of Fiscal Crisis (The state of Fiscal Crisis is defined as

one at which a country arrives after experiencing a sufficiently long sequence of adverse shocks to public revenues and the government adjust its outlays to minimum admissible levels)

• Following steady state debt ratios-to-GDP:

$$b = (k-g)/(r-q) \quad (8)$$

Variables:

b – public debt-to-GDP ratio

k – government revenues-to-GDP ratio

g – government non-interest expenditures-to-GDP ratio

r – real steady state interest rate

q – long-run rate of real GDP growth

II. METHODOLOGY

B. FISCAL SOLVENCY UNDER UNCERTAINTY

- In the state of fiscal crisis, the steady state ratio becomes in the interpretation of MO:

$$b^* = (k^{\min} - g^{\min}) / (r - q) \quad (9)$$

Variables:

b^* - Maximum level of debt-to-GDP ratio recorded during sample period

k^{\min} - The level of government revenues –to-GDP ratio in state of fiscal crisis (2 std. dev. below the mean)

g^{\min} – The level of government non-interest expenditures-to-GDP ratio necessary in a state of fiscal crisis to ensure the relevance of equation (2)

r – Average long term real interest rate over the sample period

q – Average real GDP growth over the sample period

σ - Standard deviations (p.p.)

- Hence given g^{\min} from equation (2), we can compute the necessary adjustment in government expenditures with respect to the mean that would come as necessary in a state of fiscal crisis:

$$g - g^{\min} \quad (10)$$

As a final step, dividing (3) with the standard deviations of the government expenditures ($\sigma(g)$) we compute the **Coefficient of Implied Fiscal Adjustsment (CIFA)**

$$CIFA = (g - g^{\min}) / \sigma(g) \quad (11)$$

Or

$$CIFA = \{g - [k^{\min} - b(r - q)]\} / \sigma(g) \quad (12)$$

$$CIFA = \{g - [(t - 2\sigma(k)) - b(r - q)]\} / \sigma(g) \quad (13)$$

III. DATA

- Trehan and Walsh (1991) IBC validation hypothesis.
- Country sample selection (Post 2004 EU Member States):
 - Euro Zone: **Estonia, Slovenia, Slovakia**
 - Non-Euro Zone: **Romania, Latvia, Lithuania, Hungary, Poland, Czech Republic**
- **Source: Eurostat**

No.	Variable (%GDP)	Sample Period (Frequency: <u>Quaterly</u>)	Obs.
1	Total government revenues	2000 - 2012	52
2	Government general consolidated debt	2000 - 2012	52
3	Total government expenditures	2000 - 2012	52
4	Interest payable	2000 - 2012	52
5	Net-of-interest deficit	2000 - 2012	52

III. DATA

- CIFA analysis under Mendoza and Oviedo (2004) framework. **Source: AMECO.**

No.	Variable (%GDP)	Sample Period (Frequency: Annual)	Obs.(Scenario considered)
1	General government <u>consolid.</u> debt	1995 - 2012	17 (OS, PS, ECFS)
2	Expenditures – Interest Payments	1995 – 2012	17 (OS, PS, ECFS)
3	Revenues – Capital transfers	1995 – 2012	17 (OS, PS, ECFS)
4	Real GDP/capita growth	1995 – 2012	17 (OS)
		2010 – 2012	3 (PS)
		2013 EC Winter Forecast	1 (ECFS)
5	Long term real interest rates	2001 - 2012	11 (OS)
		2010 – 2012	3 (PS and ECFS)

IV. RESULTS

A. LONG TERM SUSTAINABILITY ANALYSIS

• In order to determine the order of integration of public debt and net-of-interest deficit series, the following unit-root and stationarity tests were performed:

- Augmented Dickey – Fuller
- Dickey – Fuller GLS (Generalized Least Squares)
- Phillips – Perron
- Kwiatkowski, Phillips, Schmidt, Shin (KPSS)
- Elliot, Rothenberg, Stock – Point Optimal (ERS-PO)
- Ng-Perron

• In order to test the existence of a cointegration relationship between b_{t-1} and d_t , Johansen Cointegration Test was performed.

IV. RESULTS

A. LONG TERM SUSTAINABILITY

- Validating the order of integration results:
 - Both Debt and Net-of-interest deficit validated at 5% threshold as being:
 - **I(0): Czech Republic**
 - **I(1): Estonia, Romania, Slovakia**

2000Q1 - 2012Q4	DEBT I(1) - PB I(1): Validating Tests	No.	DEBT I(0) - PB I(0): Validating Tests	No.
Czech Republic		0	KPSS, DF GLS	2
Estonia	ADF, ERS-PO, NG-Perron, DF-GLS	4		0
Latvia		0	KPSS	1
Lithuania	ADF, DF-GLS	2		0
Hungary		0	KPSS	1
Poland		0	KPSS	1
Romania	ADF, KPSS, ERS-PO, DF-GLS	4		0
Slovenia	ADF, DF-GLS	2		0
Slovakia	ADF, ERS-PO	2		0

IV. RESULTS

A. LONG TERM SUSTAINABILITY

- Johansen Cointegration Test results:

	Unrestricted Cointegration Rank Test (Trace)	Eigenvalue	Trace statistics	0.05 Critical value	Prob.
Romania	None *	0,547018	39,773200	15,494710	0,000000
	At most 1	0,003556	0,178105	3,841466	0,673000
Estonia	None *	0,524451	38,113210	15,494710	0,000000
	At most 1	0,018799	0,948899	3,841466	0,33
Slovakia	None *	0,420241	27,71239	15,49471	0,0005
	At most 1	0,009064	0,455246	3,841466	0,4999
	Unrestricted Cointegration Rank Test (Maximum Eigenvalue)	Eigenvalue	Max-Eigen Statistic	0.05 Critical value	Prob.
Romania	None *	0,547018	39,59509	14,2646	0
	At most 1	0,003556	0,178105	3,841466	0,673
Estonia	None *	0,524451	37,16431	14,2646	0
	At most 1	0,018799	0,948899	3,841466	0,33
Slovakia	None *	0,420241	27,25714	14,2646	0,0003
	At most 1	0,009064	0,455246	3,841466	0,4999
	Normalized cointegrating coefficients				
	Net-of-interest deficit	Debt			
Romania	1	-0,124642			
Estonia	1	-0,841521			
Slovakia	1	0,063767			

IV. RESULTS

A. LONG TERM SUSTAINABILITY

- CONSOLIDATED RESULTS:

- Following Trehan and Walsh condition for one country to respect the IBC , we may conclude the following statements:

- Czech Republic, Romania, Estonia and Slovakia validate the intertemporal budget constraint, under the required stationarity and cointegrating validated assumptions.

- Latvia, Lithuania, Hungary, Poland and Slovenia do not validate de intertemporal budget constraint, under the required stationarity and cointegrating conditions, on the basis of the assumptions made.

- These long-term sustainability assessment present practical relevance if the historical dynamics of the fiscal positions are to be maintained in the future.

- Further on we will determine the necessary non-interest public outlays consolidation efforts necessary to validate the fiscal solvency condition in an uncertain economic framework.

IV. RESULTS

B. FISCAL SOLVENCY UNDER UNCERTAINTY

- The 3 scenarios were constructed for a better assessment of the necessary non-interest public outlays-to-GDP adjustments for a specific country to further service its liabilities:

- **Optimistics scenario.**

The scenario is constructed in order to determine the necessary fiscal adjustment if the long term real interest rates are equal to the averaged value from the past 11 years and the real GDP/capita growth would also equal the past 15 years average.

- **Pessimistic scenario.**

The scenario is constructed in order to determine the necessary fiscal adjustment if the long term real interest rates would remain in the immediate future at their past 3years average and the real GDP/capita growth would also remain at the past 3 years average .

- **EC Forecast Based Scenario.**

The scenario is constructed in order to determine the necessary fiscal adjustment if the long term real interest rates are equal to the average value from the past 3 years and the real GDP/capita growth would correspond to the value forecasted by the European Commission for 2013 for the sample countries (EC 2013 Winter Economic Forecasts)

IV. RESULTS

B. FISCAL SOLVENCY UNDER UNCERTAINTY

- CIFA results for the 3 scenarios:

- The CIFA were computed under the assumptions valid for each of the 3 scenarios, incorporating macroeconomic uncertainty through a 2 standard deviations shock applied to the government revenues.

ECFS Scenario		CIFA (EC 2013 Forecast)	Average CIFA
1	Estonia	1,38	3,45
2	Latvia	1,97	
3	Romania	2,01	
4	Lithuania	2,82	
5	Slovakia	3,33	
6	Slovenia	3,86	
7	Hungary	4,35	
8	Czech Republic	4,53	
9	Poland	6,84	

Large Sample Scenario		CIFA (large sample)	Average CIFA
1	Latvia	1,14	2,39
2	Estonia	1,18	
3	Romania	1,42	
4	Slovenia	1,68	
5	Lithuania	2,15	
6	Slovakia	2,58	
7	Hungary	3,39	
8	Czech Republic	3,59	
9	Poland	4,35	

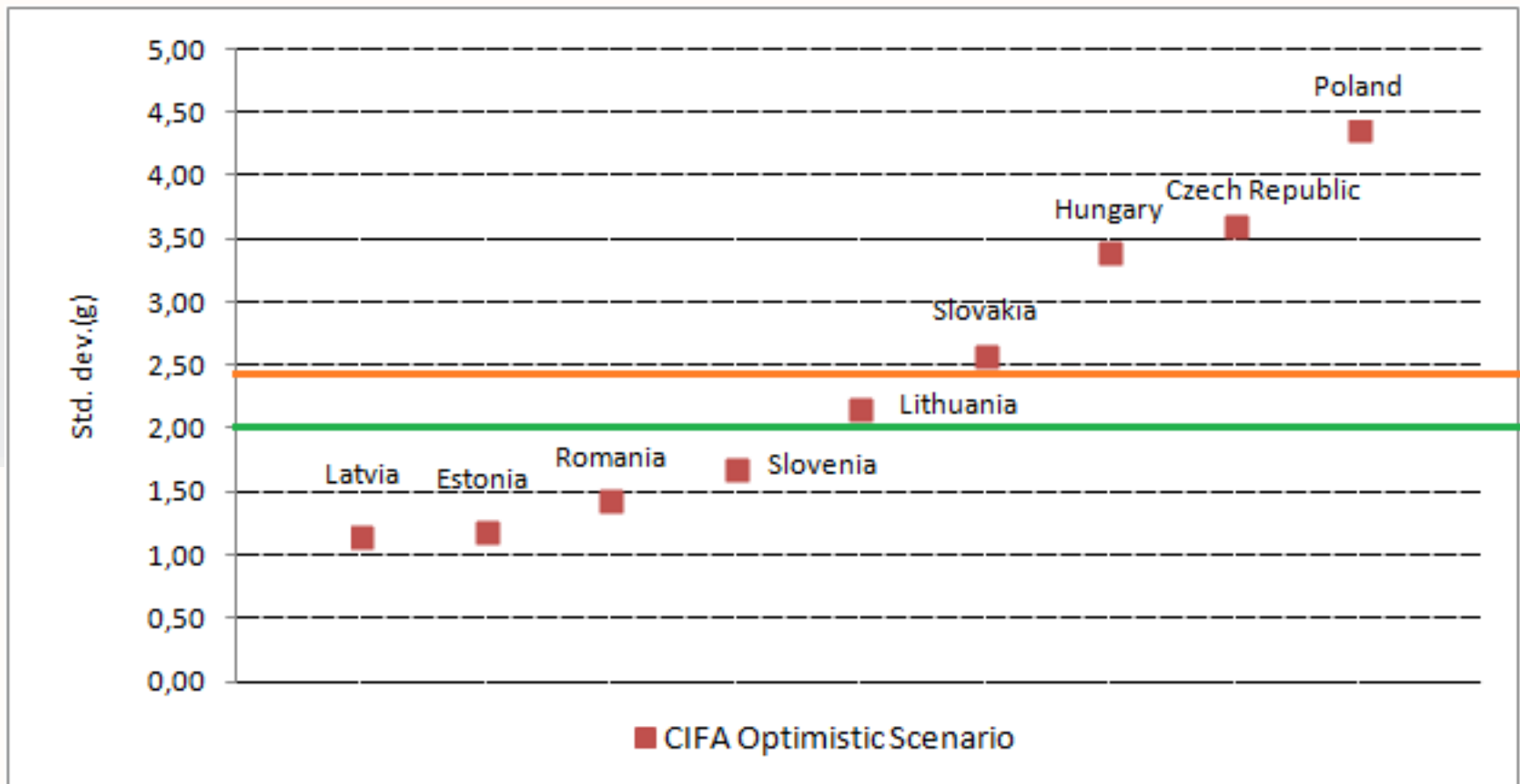
Small Sample Scenario		CIFA (small sample)	Average CIFA
1	Estonia	1,56	3,75
2	Lithuania	1,94	
3	Slovakia	2,99	
4	Romania	3,17	
5	Latvia	3,29	
6	Slovenia	4,37	
7	Czech Republic	4,57	
8	Poland	5,07	
9	Hungary	6,82	

IV. RESULTS

B. FISCAL SOLVENCY UNDER UNCERTAINTY

- **OPTIMISTIC SCENARIO:**

- As we can see in graph below, CIFA remains at a low value for Latvia, Estonia, Romania, but the CIFA coefficient is to be carefully considered for Hungary, Czech Republic and Poland.

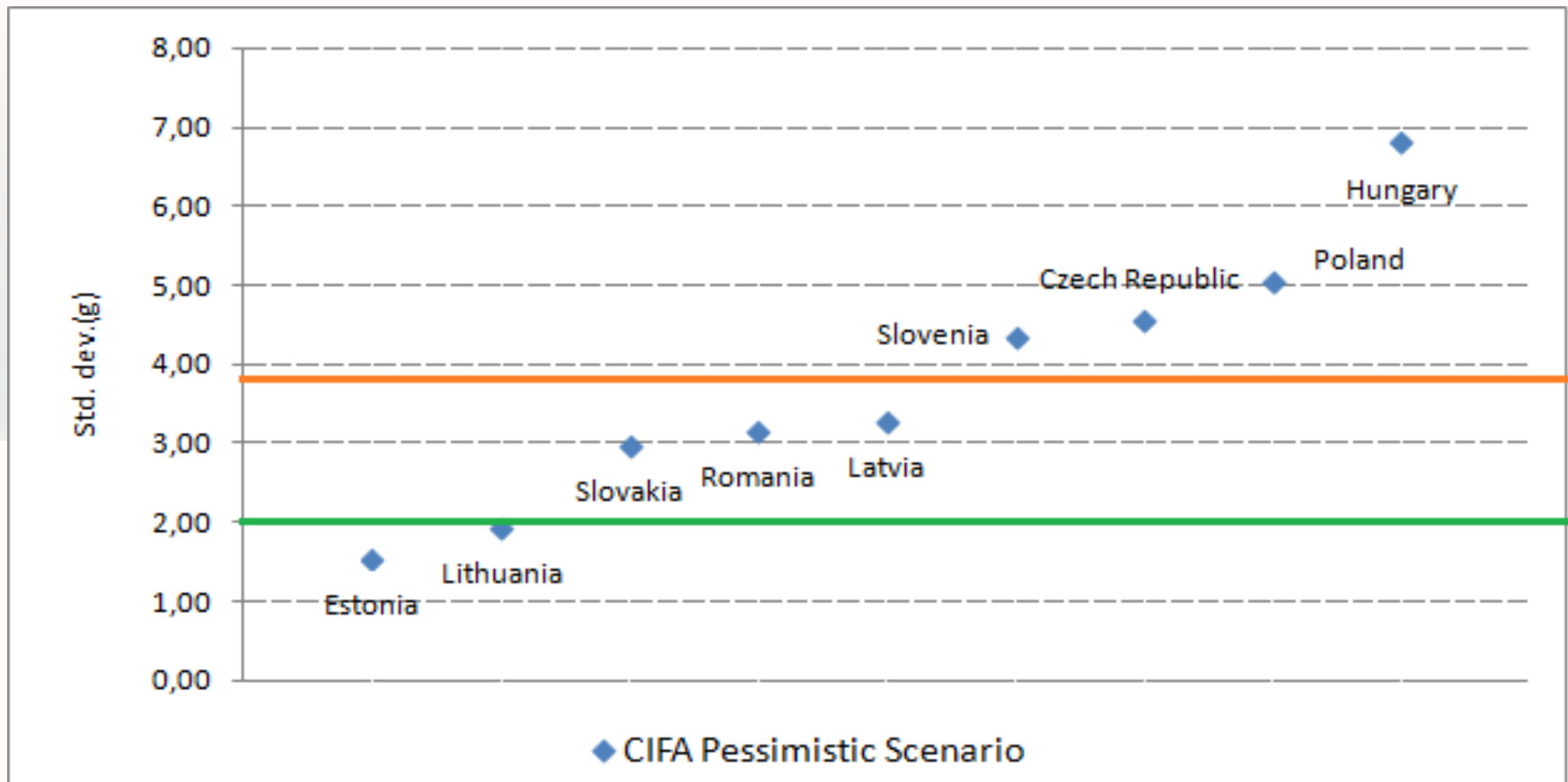


IV. RESULTS

B. FISCAL SOLVENCY UNDER UNCERTAINTY

- **PESSIMISTIC SCENARIO:**

- As we can see in graph below, CIFA remains at a low value for Estonia and Lithuania, but the CIFA coefficient is to be carefully considered for Hungary, Czech Republic, Poland and Slovenia.

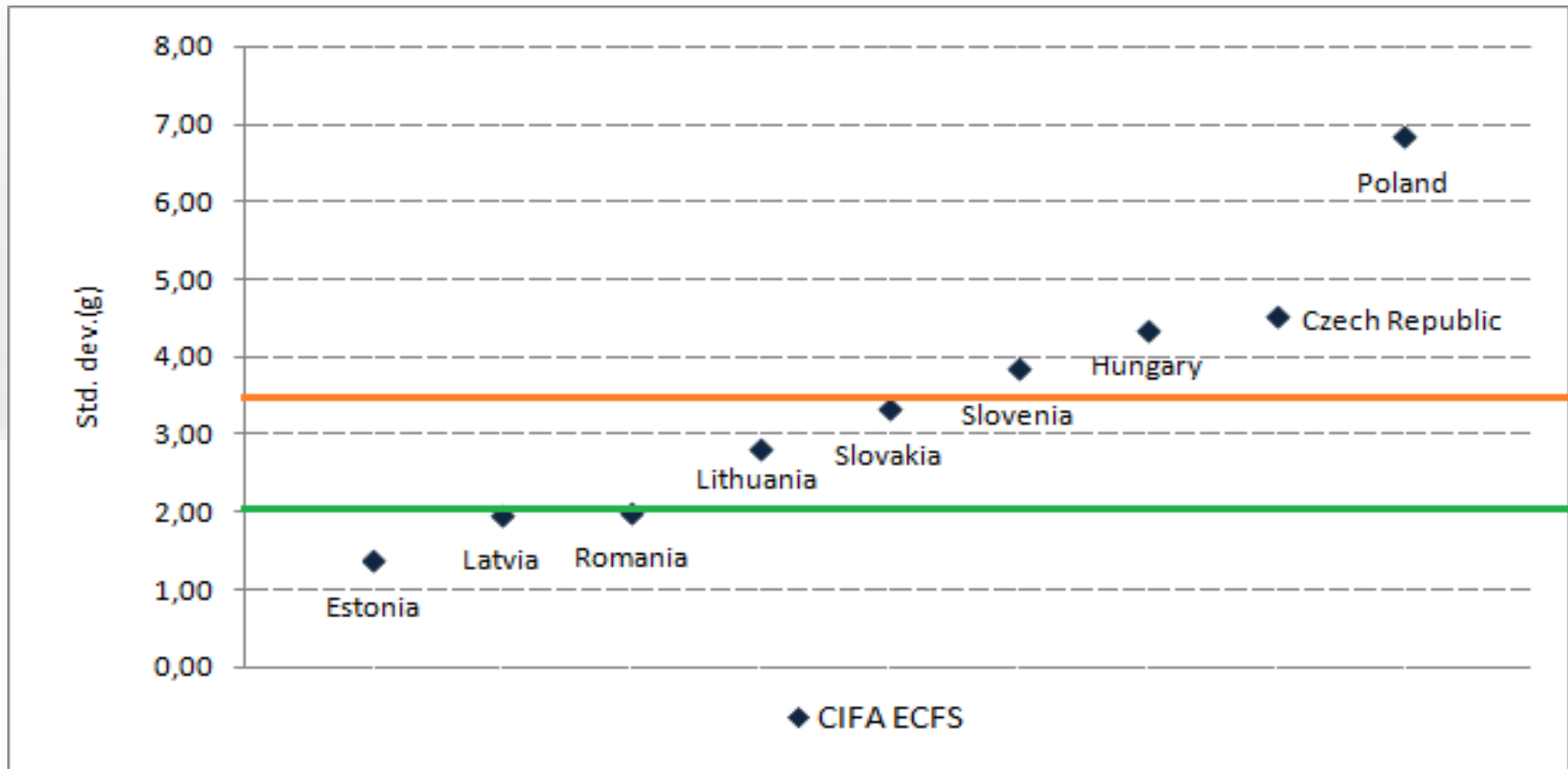


IV. RESULTS

B. FISCAL SOLVENCY UNDER UNCERTAINTY

- **EC FORECAST BASED SCENARIO:**

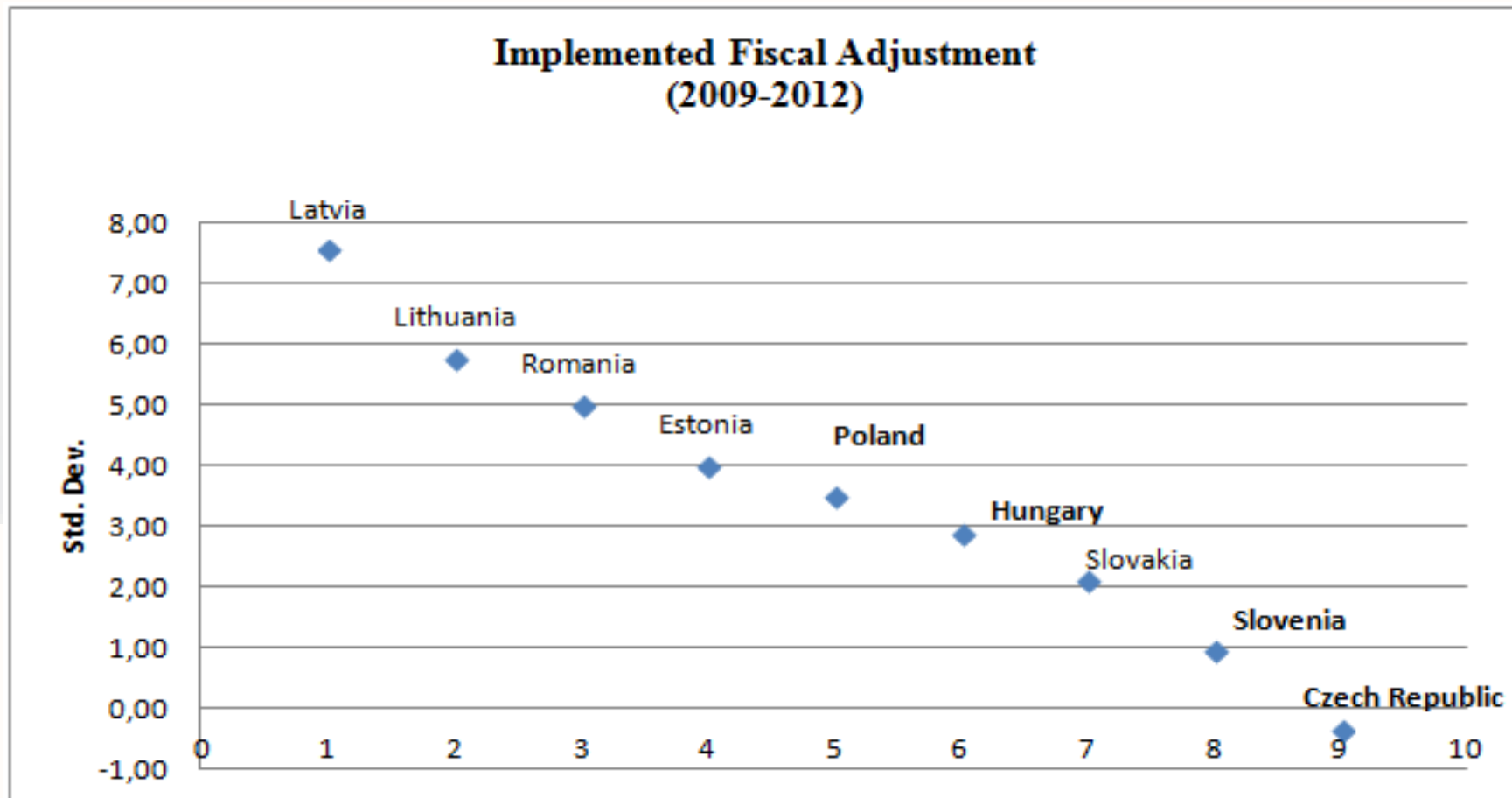
- As we can see in graph below, CIFA remains at a low value for Estonia, Latvia, and Romania, but the CIFA coefficient is to be carefully considered for Slovenia, Hungary, Czech Republic and especially for Poland.



IV. RESULTS

B. FISCAL SOLVENCY UNDER UNCERTAINTY

- The CIFA levels must also be be related to past years country-specific fiscal consolidation efforts.



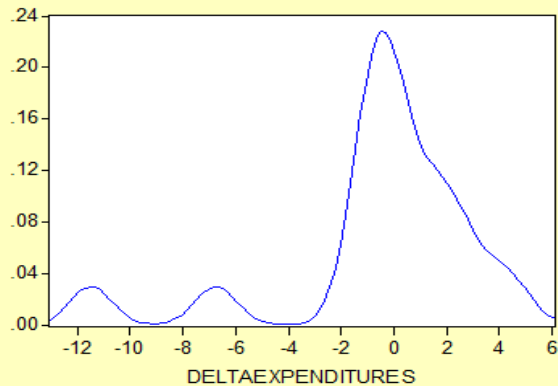
IV. RESULTS

B. FISCAL SOLVENCY UNDER UNCERTAINTY

Country-specific probability distributions

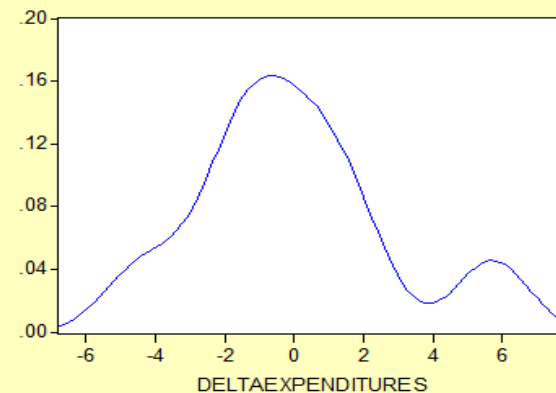
Czech Republic	OS	ECFS	PS
CIFA (%)	4.75%	5.99%	6.04%

Kernel Density (Normal, h = 0.7918)



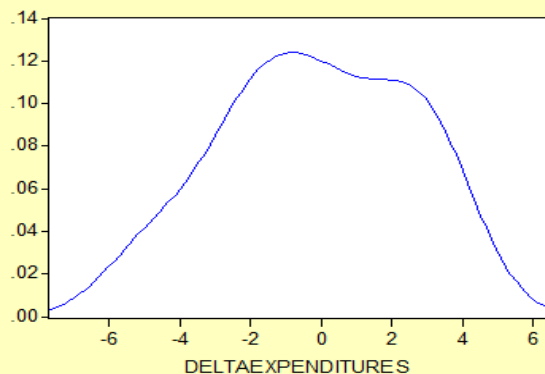
Estonia	OS	ECFS	PS
CIFA (%)	1.46%	1.71%	1.93%

Kernel Density (Normal, h = 1.0376)



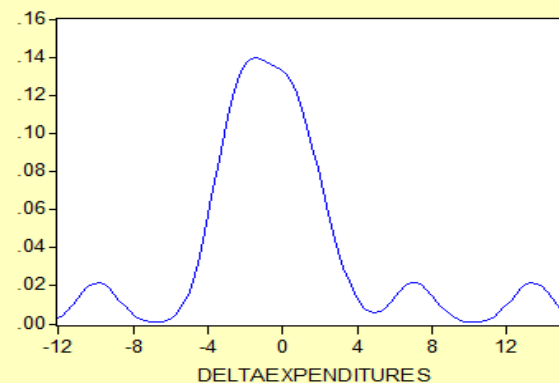
Latvia	OS	ECFS	PS
CIFA (%)	1.07%	1.85%	3.10%

Kernel Density (Normal, h = 1.3135)



Lithuania	OS	ECFS	PS
CIFA (%)	3.47%	4.56%	3.14%

Kernel Density (Normal, h = 1.0919)



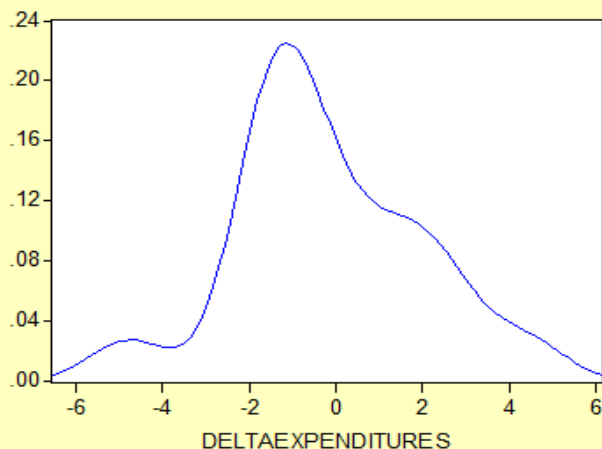
IV. RESULTS

B. FISCAL SOLVENCY UNDER UNCERTAINTY

Country-specific probability distributions

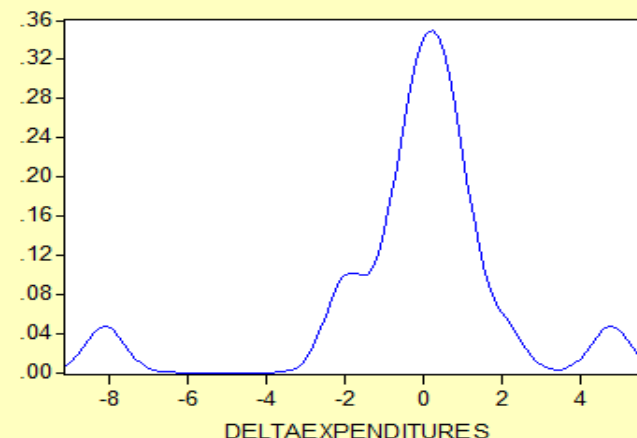
Hungary	OS	ECFS	PS
CIFA (%)	3.04%	3.89%	6.10%

Kernel Density (Normal, h = 0.8832)



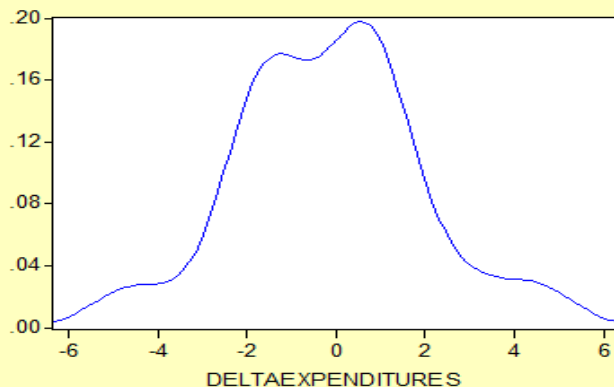
Slovenia	OS	ECFS	PS
CIFA (%)	1.97%	4.5%	5.10%

Kernel Density (Normal, h = 0.5040)



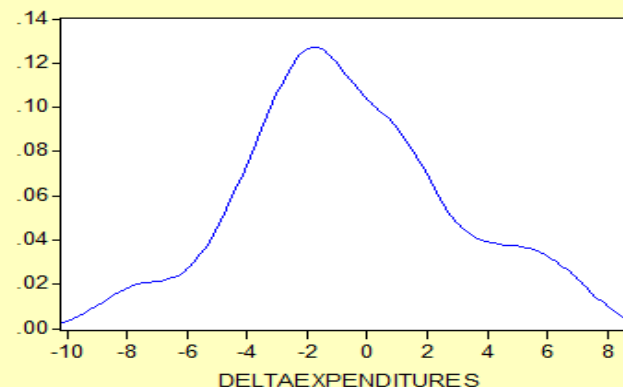
Poland	OS	ECFS	PS
CIFA (%)	3.12%	4.9%	3.63%

Kernel Density (Normal, h = 0.9061)



Slovakia	OS	ECFS	PS
CIFA (%)	5.6%	7.22%	6.49%

Kernel Density (Normal, h = 1.2948)

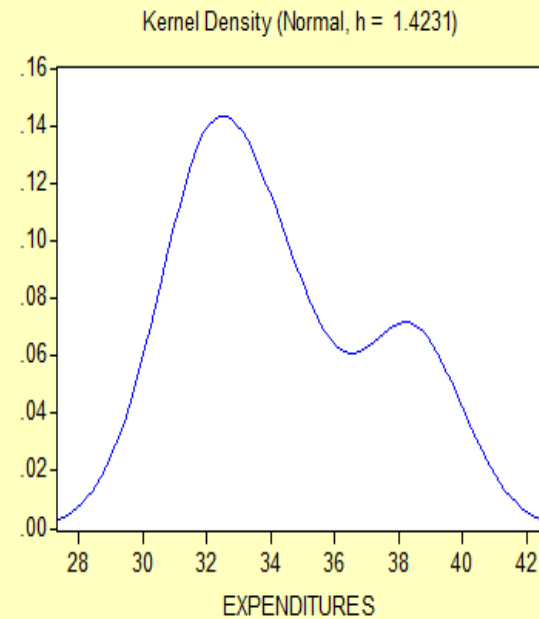
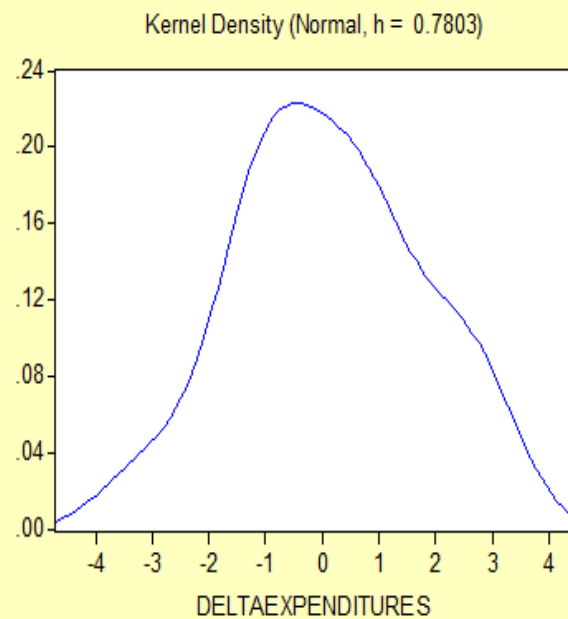


IV. RESULTS

B. FISCAL SOLVENCY UNDER UNCERTAINTY

Country-specific probability distributions

Romania	OS	ECFS	PS
CIFA (%)	1.42%	2%	3.15%
g^{\min}	32.88%	32.3%	31.14%



IV. RESULTS

B. FISCAL SOLVENCY UNDER UNCERTAINTY

Political Capacity of implementing fiscal adjustments

	ELECTIONS (E)		COALITION PARTIES (CP)		BUDGET CONSTRAINTS (IC)	
	Number	Assigned risk	Number	Assigned risk	Confirmation	Assigned risk
Czech Republic	7	Low	2	Medium	No	High
Estonia	7	Low	2	Medium	Yes	Low
Latvia	8	Medium	3	High	Yes	Low
Lithuania	11	High	4	High	Yes	Low
Hungary	6	Low	1	Low	Yes	Low
Poland	11	High	2	Medium	Yes	Low
Romania	11	High	3	High	Yes	Low
Slovakia	10	High	2	Medium	Yes	Low
Slovenia	11	High	1	Low	Yes	Low
	AVERAGE LEFT LEADERSHIP (AL)		CURRENT LEFT LEADERSHIP (L)			
	1995 – 2012 Period	Assigned risk	Confirmation	Assigned risk		
Czech Republic	47,06%	Medium	No	Low		
Estonia	17,65%	Low	No	Low		
Latvia	17,65%	Low	No	Low		
Lithuania	58,82%	High	Yes	High		
Hungary	58,82%	High	No	Low		
Poland	58,82%	High	No	Low		
Romania	35,29%	Medium	Yes	High		
Slovakia	23,53%	Low	Yes	High		
Slovenia	29,41%	Medium	Yes	High		

V. CONCLUSIONS

- The current paper aimed to assess long term fiscal sustainability using a IBC based methodology and a second methodological framework that incorporates explicitly macroeconomic uncertainty within fiscal solvency hypothesis assessment.
- The analysis revealed that Romania, Estonia and Slovakia respect the IBC and hence the long term sustainability condition.
- The fiscal adjustment coefficient CIFA revealed a credible commitment to respond in times of fiscal crisis for Estonia, Romania and Latvia and a high vulnerability to a fiscal crisis situation for Hungary, Poland, Slovenia and Czech Republic.
- The countries which recorded the lowest necessary non-interest public outlays adjustments in fiscal crisis times were also the countries with the most committed budgetary consolidation program implemented in the past four years.
- When referring to the country-specific probability distribution, the adjustments coefficients for the more exposed countries to a fiscal crisis situation were the ones with the lowest probability of implementation.
- The framework considered assessed a high political capacity of facing unexpected macroeconomic shock for Latvia, Slovakia, Hungary and Czech Republic, while the overall political framework suggests a low political response capacity to such a situation for Romania, Lithuania and Poland.

V. CONCLUSIONS

ROMANIA

- Romania satisfies the IBC and hence the long term sustainability condition.
- Following CIFA indicator, Romania has one of the lowest adjustment coefficient required in a state of fiscal crisis
- Romania recorded in 2012 one of the lowest Debt/GDP Ratio from the sample countries, well below the 60% SGP level; expected to stabilize around 38%/GDP.
- Romania recorded in 2012 a budget deficit just above de 3% SGP level
- Romania is expected to have a 1.6% GDP growth in 2013, taking into account European Commission Forecasts
- Domestic Demand as the main driver of growth.
- One of the lowest Revenue/GDP ratios in our sample

V. CONCLUSIONS

ESTONIA

- Estonia satisfies the IBC and hence the long term sustainability condition.
- Following CIFA indicator, Estonia has the lowest adjustment coefficient in a state of fiscal crisis from our sample countries.
- Estonia has recorded in 2012 the lowest Debt/GDP ratio from our sample countries..
- Estonia was the only country from our sample with a positive primary balance in 2012.
- Estonia is expected to have a strong 3% GDP growth in 2013 (EC Forecasts), mostly based on external demand (Russia)

CZECH REPUBLIC

- Czech Republic satisfies the IBC and hence the long term sustainability condition.
- Following CIFA indicator, Czech Republic has one of the highest adjustment coefficient in a state of fiscal crisis. The low commitment to expenditures cut plans is also states by the European Commission Winter Economic Report (2013).
- The more pronounced budget deficit from our sample in 2012
- Stagnation forecasted by the European Commission in 2013

V. CONCLUSIONS

LATVIA

- Latvia does not satisfy the IBC and hence the long term sustainability condition.
- Following CIFA indicator, Latvia has one of the lowest CIFA from our sample.
- Latvia is expected to have in 2013 the highest GDP growth from our sample countries
- Expecting rising wages and employment in 2013. Early repayment made in 2012 of outstanding debt to IMF.

LITHUANIA

- Lithuania does not satisfy the IBC and hence the long term sustainability condition.
- Following CIFA indicator, Lithuania should pay attention to vulnerability to a fiscal crisis situation.
- Lithuania recorded in 2012 a budget deficit lower than the 3% SGP limit
- Increased Revenue/GDP ratios

V. CONCLUSIONS

HUNGARY

- Hungary do not satisfy the IBC and hence the long term sustainability condition.
- Following CIFA indicator, Hungary has one of the highest top 3 adjustment coefficients from our sample countries
- Hungary recorded in 2012 a Debt/GDP ratio well above the 60% SGP threshold
- Hungary is expected to have a reserved 1% GDP growth in 2013

POLAND

- Poland does not satisfy the IBC constraint and thus the long term sustainability condition.
- Following the CIFA coefficient, Poland has no doubt the highest exposure to a state of fiscal crisis from our sample countries.
- Poland recorded in 2012 a budget deficit more consistent than the 3% SGP threshold
- Poland recorded in 2012 a Debt/GDP ratio close to the 60% SGP threshold
- Poland is expected to record a inconsistent growth in 2013.
- Investments growth limited due to EU funds inflow stagnation.

V. CONCLUSIONS

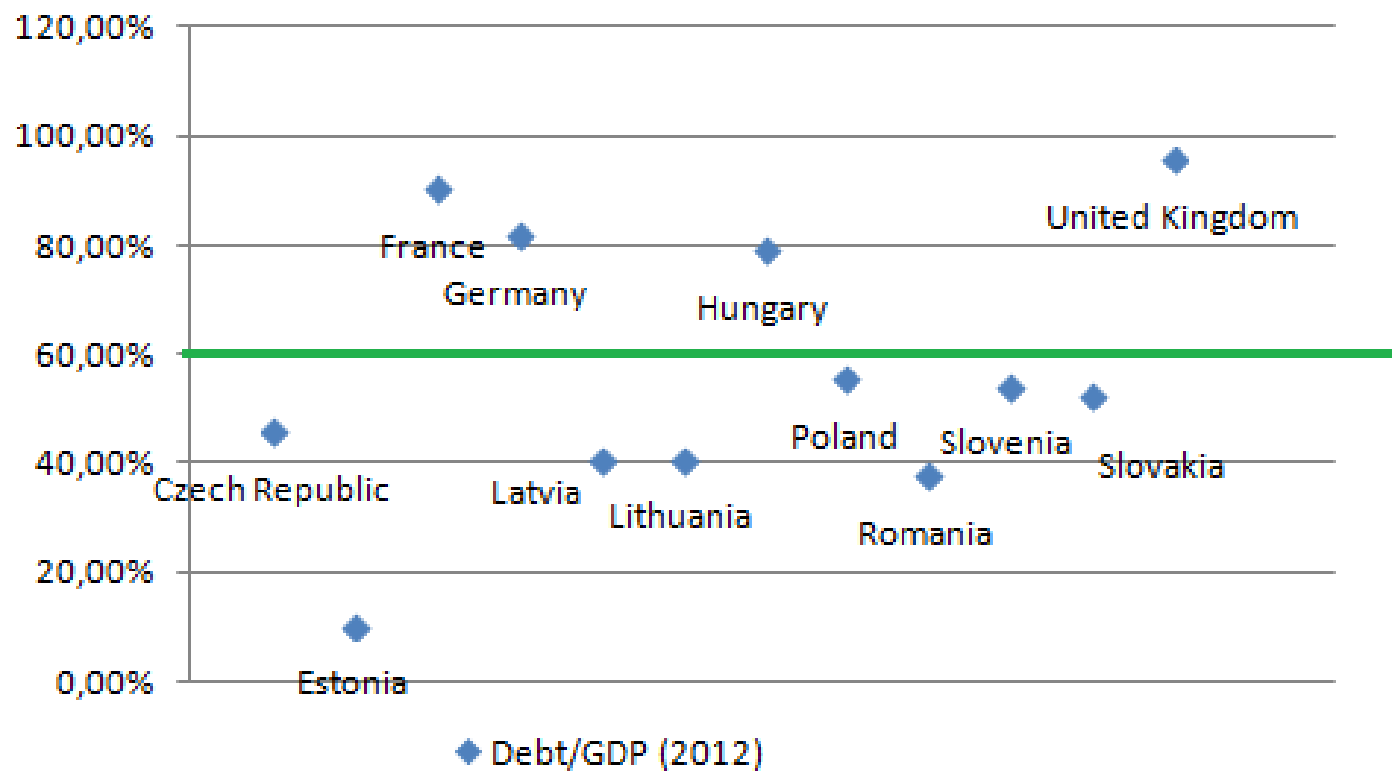
SLOVENIA

- Slovenia does not satisfy the IBC and hence the long term sustainability condition.
- Following CIFA indicator, Slovenia has a significant correction coefficient in a Fiscal Crisis situation, resulting to a high exposure in such situations and doubtful commitment to these adjustments .
- Slovenia recorded in 2012 a Debt/GDP ratio close to the 60% SGP threshold
- Slovenia recorded in 2012 a budget deficit much more consistent than the 3% SGP threshold
- Slovenia GDP is expected to contract 2% in 2013, thus leading to a double-dip recession

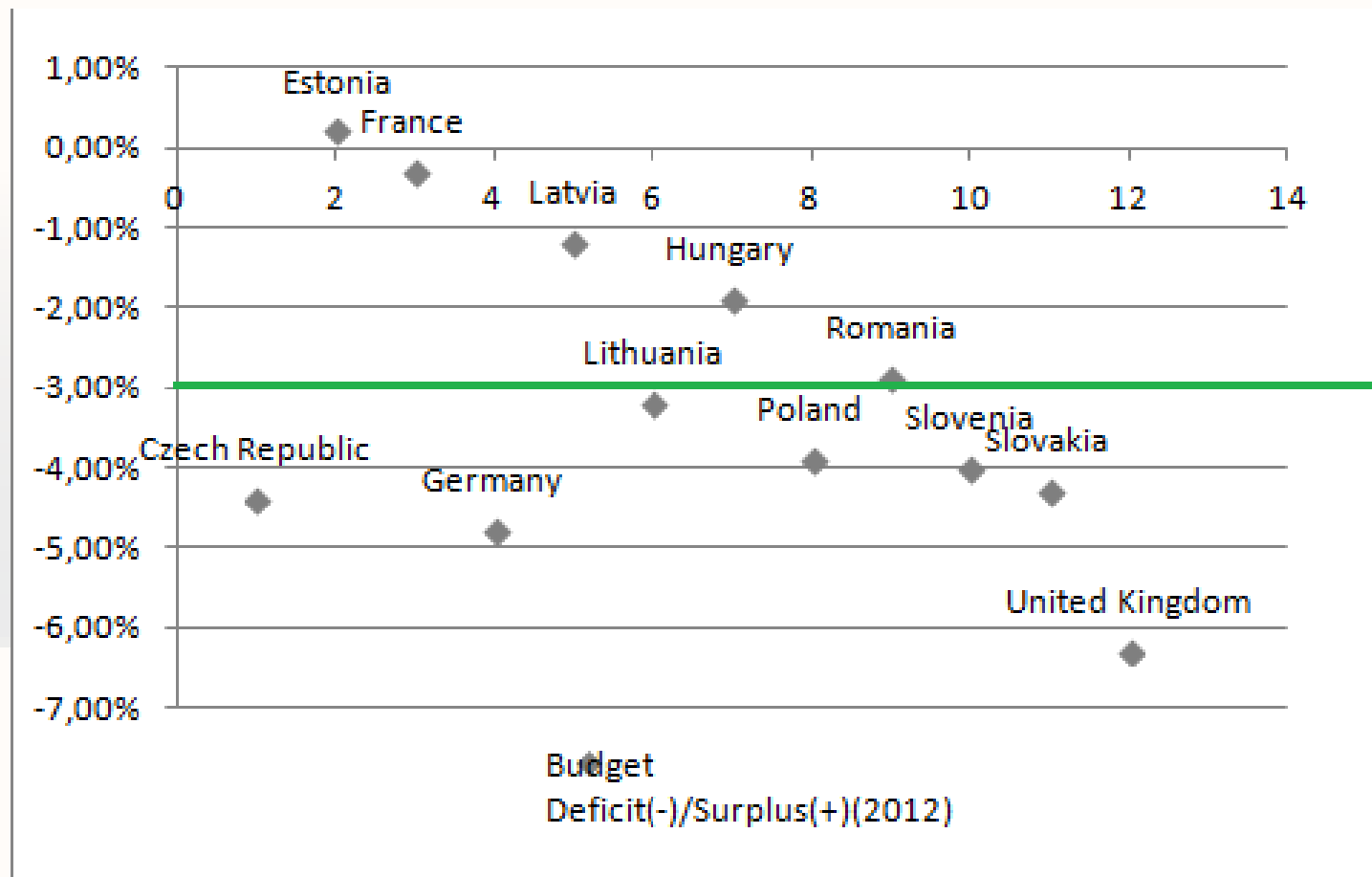
SLOVAKIA

- Slovakia satisfies the IBC constraint and thus the long term sustainability condition.
- Although satisfying the IBC, Slovakia should focus on improving its fiscal reaction necessary in the situation of a fiscal crisis.
- Slovakia recorded in 2012 a budget deficit more consistent than the 3% SGP threshold
- Slovakia recorded in 2012 a Debt/GDP ratio close to the 60% SGP threshold
- Slovakia is expected to record a close to 1% GDP growth in 2013.

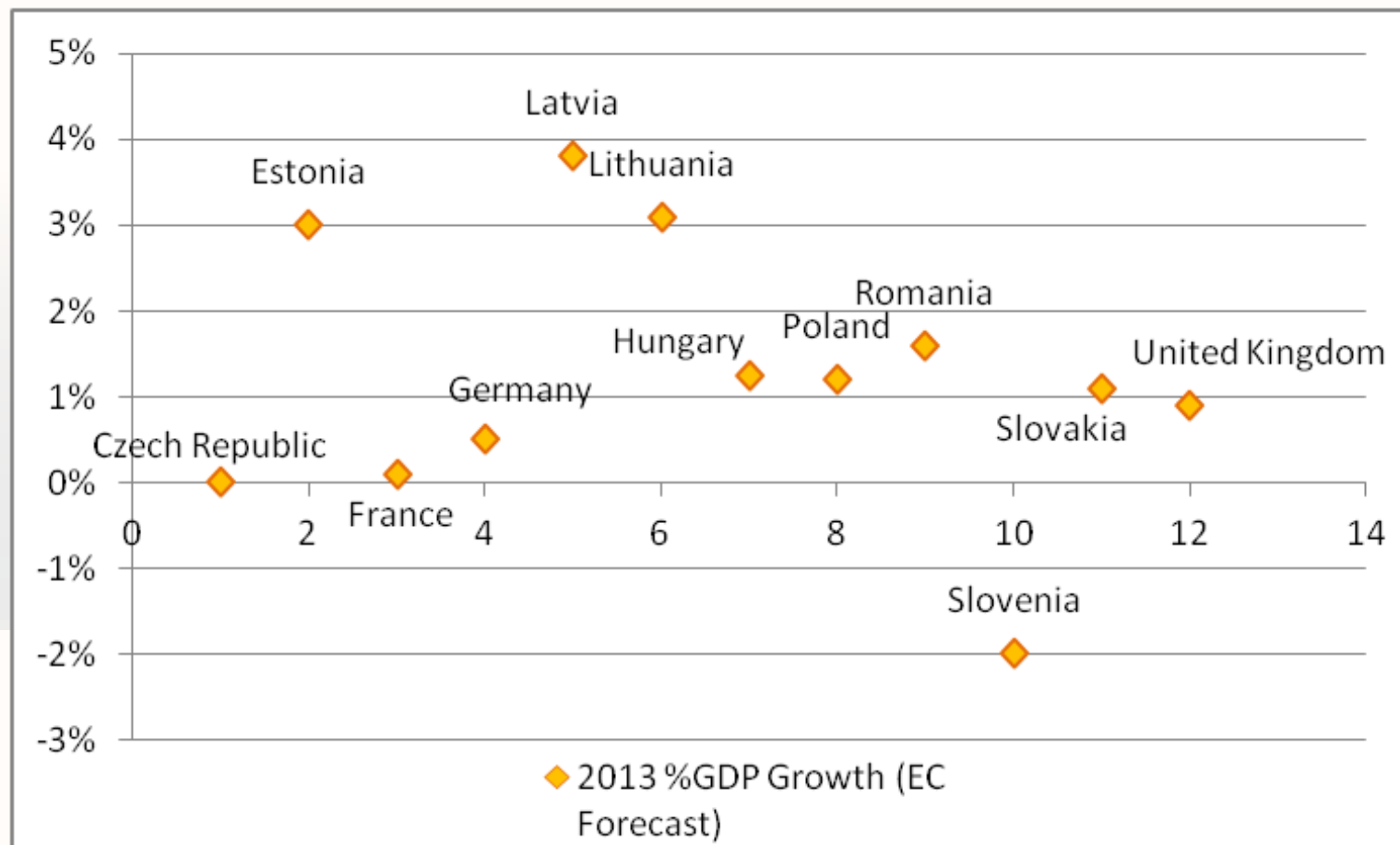
V. CONCLUSIONS



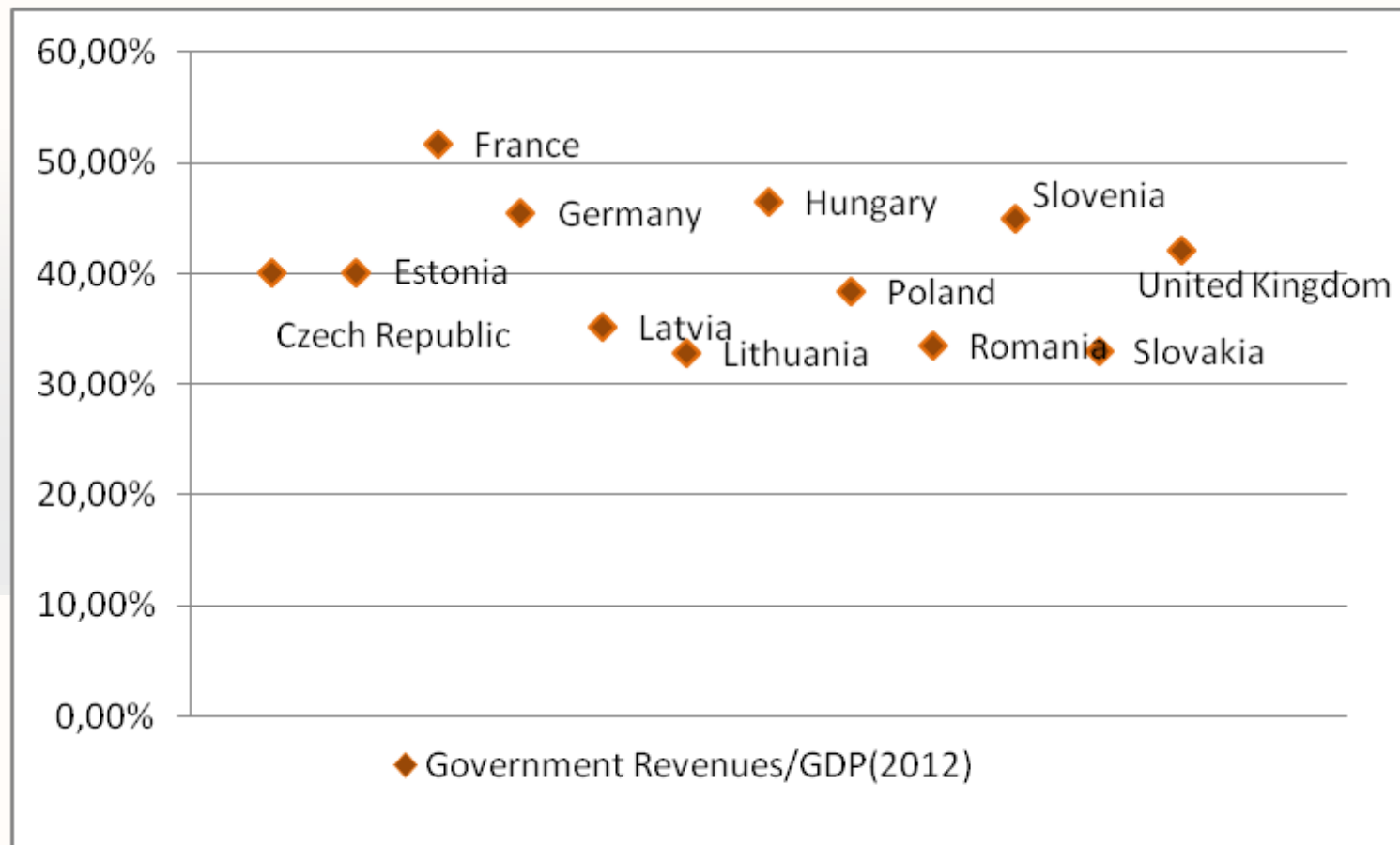
V. CONCLUSIONS



V. CONCLUSIONS



V. CONCLUSIONS



Thank you!