

Stability and Growth Programmes inconsistency evaluated by means of the EU27 Bilateral Trade Tool

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1. Introduction

According to the Treaty of Rome, the task of the Community is to establish a common market and an economic and monetary union throughout a harmonious, balanced and sustainable development of economic activities. Because of this principle, the Central Eastern European enlargement was largely considered risky or even not affordable. Later in the nineties, the Central and Eastern candidate countries were considered a modest market area for the EU15¹ while they were expected to generate a remarkable impact on the EU budget due to the cohesion funds to be directed towards such poor economies. However, political reasons prevailed and the enlargement began its roadmap within the programme named Europe Agreements which were defined by the European Council in the 1994.

The percentage of the EU12² over the EU population is about 21%. Because of the principle of a harmonious, balanced and sustainable development of Member State economic activities, this share may be assumed to be a good approximation of the present and future EU12 market size within EU27.

Since the beginning of the negotiations, the enlargement implied the redefinition of the common market area and a trade creation already experienced during the sixties for the EU6³ was expected. In Table 1, two indexes related to the international trade occurred in the last decade are presented. The first index is the share of exports directed out of EU27, namely the EU27 'Rest of the World'. It shows that since 1999 exports directed out of EU27 remain constant around one third of the EU27 Member State total exports. The second index shows the percentage of EU12 exports over the EU27 exports directed inside the EU custom union. This index gives evidence of the increasing export performance of the new EU Member States; it indirectly shows the Central and Eastern European economies undergoing catching up.

If 'a harmonious, balanced and sustainable development of economic activities' is the leading principle of the European Union economic policy and the country economic size may be measured by the population, while trade diversion related to the adhesion of the Central and Eastern European countries may have reached its equilibrium, the export penetration seem still roaring towards the expected share of 20%.

¹ EU15 is the Member States group before the Eastern enlargement: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Portugal, The Nederland, United Kingdom, Spain, Sweden.

² EU12 refers to Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia.

³ EU6 is the group of the countries which signed the treaty of Rome in 1957: Belgium, France, Italy, Luxembourg, (West) Germany, The Nederland.

Tab. 1 – Two indicators of the EU27 and EU12 exports

YEAR	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Percentage of EU27 exports										
out of the European Market	32,0	33,0	33,8	33,4	32,4	32,5	33,2	32,8	33,4	34,0
Share of the EU12 exports										
in EU27 market	9,4	10,0	10,3	10,9	11,5	13,4	14,2	15,2	16,2	17,0

Source: Comext

The trade flows among the EU Member States is here analyze using the updated and enlarged Bilateral Trade Tool (BTT) based on Comext statistics. The basic structure of BTT is described in Grassini, Parve (2007). This Tool follows the commodity detail adopted by Ma (Ma, 1996) for the Bilateral Trade Model (BTM) which links the Inforum system of country models. The present version of BTT includes a number of candidates to join the European Union.

Besides country sectoral forecasts based on specific scenarios for each country in EU27 BTM, this paper presents trade flows implied by the Stability and Growth Programmes and Convergence Programmes prepared by each EU Member State. First, a description of the background which led European Union to introduce a framework of multilateral surveillances and the definition of the content and the role of such Programmes is outlined. Then, taking the macroeconomic forecast assumed by each EU Member State in these Programmes, the export forecasts implied by the import shares in EU27 BTM are computed.

2. Stability and Growth Pact within the European Union economic policy.⁴

The Stability and Growth Pact (SGP) is based on the objective of sound government finances as a mean of strengthening the condition for price stability and for strong sustainable growth conducive to employment creation. SGP aims to strengthen the surveillance of European Union Member States budgetary position and coordination of their economic policies. In particular, it aims to adhere to medium term objective of budgetary position of ‘close to balance or in surplus’ to which Member States are committed. Furthermore, in the case that information indicating actual or expected significant divergence from the medium term budgetary is going to occur, SGP defines actions to alert Member State at an early stage of the need to take a necessary budgetary corrective action in order to prevent a government deficit becoming excessive.

According to SGP, Member States are divided in two groups: those adopting the single currency, which are named ‘participating Member States’, and those ‘non-participating’. The first group is committed to submit medium term programmes named ‘stability programmes’; the second group not (yet) adopting the single currency, however, will need to pursue policies aimed at high degree of sustainable convergence, so that also these Member States are committed to submit medium term programme named ‘convergence programme’.

Participating Member States are monitored under the monetary policy guidelines (concerning inflation and exchange rate targets); non-participating countries which have a central rate *vis-à-vis* the euro must provide a reference point for judging the adequacy of their policies; however, for all

⁴ The content of this paragraph is largely taken from the Council Regulation (EC) No 1466/97 and from

the non-participating Member States their convergence programmes must be oriented to avoid real exchange rate misalignment and excessive nominal exchange rate fluctuations.

Stability and Convergence Programmes put forward the basic information to support surveillance and coordination of Member State economic policies. The Council of the European Union, when examining and monitoring the Stability/Convergence programmes, must take into account the relevant cyclical and structural characteristics of the economy of each Member State.

Each Stability /Convergence programme must give information concerning the main assumptions about expected economic developments and those important economic variables which are relevant to the realization of the programme and in particular the real gross domestic product (GDP), employment and inflation. Such variables are the cornerstone of the assessment of the budgetary and other economic measures being taken or proposed in order to achieve the objectives of the programme. Within the framework of multilateral surveillance, the European Council examines the medium term budgetary objective presented by the Member State concerned and assesses whether the economic assumptions on which the programme is based are plausible, whether the adjustment path towards the medium term budgetary objective is appropriate and whether the measures proposed are sufficient to achieve the medium term objective over the cycle.

In order to facilitate comparison across countries, Member States are expected, as far as possible, to follow a common model structure described in a 'Code of conduct' endorsed by ECOFIN⁵. The quantitative information in each Stability/Convergence Programme must be presented in a number of standardised set of tables; however, these tables can be complemented by further information wherever deemed useful by Member States.

The Commission forecasts can provide an important contribution for the coordination of economic and fiscal policies. Anyway, Member States are free to base their Stability/Convergence Programmes on their own projections. Among the main assumptions about the expected economic developments and important economic variables relevant to the realization of their budgetary plans, GDP projections play an important role. According to the PSG regulation, the assumption on real GDP growth should be underpinned by an indicator of the expected demand contributions to growth. From the 'Code of conduct', this is accomplished by the following Table 1 where Exports and Imports are among the demand contributors. Furthermore, Stability/Convergence Programmes must provide information to allow an analysis of the cyclical position of the economy and the source of potential growth.

In due time, for comparability reasons the European Commission provides 'common external assumptions' on the main extra-EU variables.

The GDP projections in Table 1 are demand oriented; they are determined by the final demand components forecasts. The information to be given in other Tables defined in the 'Code of conduct' refer to public finance revenues and expenditures, assumptions about interest rates and expected inflation rate and supply-side variables set to compute the potential output. This set is related to the method adopted to compute the potential output. At the time of the introduction of the Stability and Growth Pact, the potential output was filtered out by means of the Hodrick-Prescott filter. In order to give evidence of the supply-side determinants of the potential output, the production function approach has been adopted and it is in the process to be applied to all Member State. This approach relies on two unobservable variables – potential output and Total Factor Productivity (TFP) – and on a not observed but assumed production function analytical form. Consequently, demographic projections to compute labour force ('Labour market developments' is the title of the table from Code of conduct) and capital formation (which necessarily relies on Gross fixed capital formation and Changes in inventories as final demand components listed in Table 1) are data variables required.

Stability/Convergence Programmes are assessed by the European Council and, if necessary, are accompanied by recommendations. The assessment takes the bureaucratic shape of a Council

⁵ ECOFIN is the European Council dealing with Monetary and Economic Affairs.

Opinion which is supported by a technical analysis of the Member State Stability/Convergence Programme prepared by the European Commission (Directorate-General for Economic and financial Affairs (DG ECFIN)). The analysis mainly takes into account (1) the Commission service' autumn forecast, (2) the 'code of conduct' and (3) the commonly agreed methodology for the estimation of potential output and cyclically-adjusted balances.

As required by the Council Regulation concerning the Stability and Growth Pact, the assessment covers a number of points; among them the assessment is given whether the economic assumptions on which the programme is based are plausible. The Commission service' autumn forecast and the 'common external assumptions' provided by the Commission should represent the documents supporting the plausibility of this point. However, the surveillance on fiscal policy focuses on cyclically-adjusted balances and the judgement on macroeconomic assumptions (such as those listed in the Table 1) is not in the front place. Furthermore, Commission forecasts cover an horizon shorter than that required by the Stability and Growth Pact; hence, the plausibility of the economic assumptions turns out to be rather vague. It is common to find in the analysis of the update of a Stability as well as Convergence Programme assured that is 'broadly in line with the Commission service' autumn forecast' and that the scenario supporting the programme 'appears to be based on plausible growth assumptions'.

Table 1. The Table in ‘code of conduct’ summarizing the assumptions about Real and Nominal GDP.

Table 1a. Macroeconomic prospects

	ESA Code	Year X-1	Year X-1	Year X	Year X+1	Year X+2	Year X+3
		Level	rate of change	rate of change	rate of change	rate of change	rate of change
1. Real GDP	B1*g						
2. Nominal GDP	B1*g						
Components of real GDP							
3. Private consumption expenditure	P.3						
4. Government consumption expenditure	P.3						
5. Gross fixed capital formation	P.51						
6. Changes in inventories and net acquisition of valuables (% of GDP)	P.52 + P.53						
7. Exports of goods and services	P.6						
8. Imports of goods and services	P.7						
Contributions to real GDP growth							
9. Final domestic demand		-					
10. Changes in inventories and net acquisition of valuables	P.52 + P.53	-					
11. External balance of goods and services	B.11	-					

Source: Code of Conduct

3. The EU27 BTT at work. Two scenarios.

EU27 BTT is used to investigate trade flows among the European countries and to forecast flow matrices according to specific scenarios were the countries are divided in two groups: those in the Inforum system of models (namely, Spain, France, Germany, Belgium, Austria, UK) and those not yet explicitly linked in the Inforum BTM.

The first scenario is mainly based on the Inforum BTM forecast.

For the countries in the Inforum system of models, the relative columns in the flow matrices follow the Inforum BTM forecast. For the other countries a mixed scenario is adopted; a) for the years 2007 (observed), 2008 (estimated) and 2009 (forecast) import rates of growth from the Commission

Autumn Forecast 2007 are applied to extend the import flows and b) from 2010 onwards the aggregate import rate of growth of the countries in the Inforum system of models is applied to the other countries in the EU27 BTT.

This scenario produces a baseline forecast which, in this context, represent a neutral or more reliable forecast for EU27 countries. The forecast is considered neutral with respect to scenarios external to that designed by the Inforum team. It is considered reliable with respect to any other scenario composed by assumptions coming from independent sources.

The second scenario introduces the forecast that each European Member State produces within the Stability and Growth Pact.

In this framework, each Member State commits himself to respect the medium-term budgetary objective of position 'close to balance or in surplus' set out in their stability or convergence programmes. These programmes contain the declaration of the fiscal policy each country intend to realize and the effect of such policy programmes are summarized in a number of tables. In accordance with provisions of Council Regulation (EC) No 1466/97, as described above, each Member State submits Stability or Convergence programme where the path for the general government surplus/deficit ratio and debt ratio is given together with the main economic assumption on annual basis; these shall cover, as well as the current and preceding year, at least the three following years leaving it open to Member State to cover a long period if they so wish. In Table 1, there are variable required and variable highly desired. GDP at constant market prices and at current market prices belong to the set of required variables. In fact, GDP is a pivot variable to evaluate fiscal policy programmes; its component are also required and among them 'external balance of goods and services' comes from the ESA code variables P6 and P7, namely exports and imports of goods and services. Tables 2 and 3 contain the rates of growth respectively of imports and exports collected from the stability and convergence programmes of the EU27 Member countries delivered in Autumn 2007.

The import rates in Table 2 are used to forecast BTT import flows matrices. For the countries in the Inforum system of models, the structure of the forecast imports flows is preserved and the total is rescaled according to the import growth rates reported in the Stability or Convergence programmes. For the countries not in the Inforum system of models, the import growth rates reported in the Stability or Convergence programmes are applied to all the commodities. The export flows rate of growth corresponding to the assumed import growth rates in Table 2 and using BTT trade flows matrices are reported in Table 4. The difference between export growth rates in Table 3 and Table 4 are shown in table 5.

Table 2 - Import rates of growth from Stability and Growth Programmes and Convergence Programmes (ESA P7) (November 2007)

	Years	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
1	Austria	6,80	7,70	6,60	6,00	6,00					
2	Belgium	2,70	4,90	4,80	5,60	5,60	5,60				
3	Bulgaria	15,15	13,57	11,69	11,14	11,05					
4	Cyprus	6,80	3,30	3,10	3,50	3,50	3,60				
5	Czech Republic	15,20	13,90	12,70	12,40	12,40					
6	Germany	11,20	6,30	6,80	5,50	5,50	5,50				
7	Denmark	14,40	5,70	3,50	2,20	3,20	2,00	3,80	3,80	3,80	3,80
8	Estonia	17,10	3,50	4,70	5,90	7,30	7,50				
9	Spain	8,30	7,20	5,50	5,20	5,50					
10	Finland	8,30	4,40	3,80	3,00	2,80	2,60				
11	France	4,40	5,50	6,70	6,70	6,70	6,70				
12	UK	6,75	3,75	4,00	4,25	4,25					
13	Greece	8,70	8,40	7,80	7,20	7,00					
14	Hungary	14,50	13,20	11,10	11,00	11,10	11,10				
15	Ireland	4,40	5,90	4,50	4,30	4,10					
16	Italy	4,30	1,80	2,50	3,10	3,30	3,40				
17	Lithuania	13,80	16,00	12,30	4,10	8,40					
18	Luxenburg	7,20	9,30	7,20	8,00	7,70					
19	Latvia	17,50	22,10	8,90	7,50	7,40					
20	Malta	8,10	-3,90	2,00	2,10	1,80					
21	Netherlands	8,10	6,50	6,00	5,50	5,50					
22	Poland	17,40	10,90	9,60	7,80	7,00					
23	Portugal	4,30	3,80	3,90	4,80	5,60	6,60				
24	Romania	23,00	21,50	16,10	14,90	13,90					
25	Svezia	3,20	3,20	2,90	3,00	3,00					
26	Slovenia	12,20	14,20	10,10	8,20	8,00	7,70	7,70	7,70		
27	Slovacchia	17,80	17,20	11,50	8,10	6,10					

Table 3 - Export rates of growth from Stability and Growth Programmes and Convergence Programmes (ESA P6) (November 2007)

	YEAR	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
1	Austria	8,50	7,10	6,20	6,20	6,60					
2	Belgium	2,60	4,60	4,50	5,60	5,60	5,60				
3	Bulgaria	8,96	8,70	8,95	11,22	11,61					
4	Cyprus	4,80	1,60	2,70	3,30	3,70	3,90				
5	Czech Rep.	15,90	13,20	11,90	12,90	13,50					
6	Germany	12,50	7,80	6,30	5,50	5,50	5,50				
7	Denmark	10,10	4,90	3,00	3,50	3,60	2,00	3,30	3,30	3,30	3,3
8	Estonia	8,30	2,50	6,40	7,70	7,70	7,70				
9	Spain	5,10	5,70	5,40	5,40	5,70					
10	Finland	10,40	5,70	4,70	5,00	4,50	4,00				
11	France	3,60	5,70	6,80	6,80	6,80	6,80				
12	UK	10,25	-3,25	4,75	5,00	5,00					
13	Greece	5,10	8,00	7,30	7,60	7,70					
14	Hungary	18,90	15,50	12,90	11,80	11,50	11,20				
15	Ireland	4,40	6,80	5,60	5,20	5,00					
16	Italy	5,30	2,00	2,80	3,50	3,80	4,10				
17	Lithuania	12,20	8,60	12,20	2,40	8,00					
18	Luxenburg	9,60	10,30	6,90	8,20	7,80					
19	Latvia	5,30	9,50	9,10	7,60	7,50					
20	Malta	10,00	-1,70	2,30	3,30	3,20					
21	Netherlands	7,00	6,25	6,50	5,75	5,75					
22	Poland	14,60	9,00	6,00	6,20	6,20					
23	Portugal	8,90	6,90	6,70	6,00	6,30	6,50				
24	Romania	10,60	8,30	10,30	10,90	10,70					
25	Svezia	4,20	2,70	3,20	3,20	3,30					
26	Slovenia	12,30	13,40	10,30	9,70	8,80	8,20	8,20	8,20		
27	Slovacchia	20,70	21,10	12,80	8,90	6,80					

Table 4 - Export rates of growth from EU27 BTM under PSG programme forecasts

	YEAR	2007	2008	2009	2010	2011
1	Austria	7,68	7,18	6,62	6,43	5,78
2	Belgium	6,72	6,30	5,85	5,83	5,28
3	Bulgaria	7,99	7,21	6,70	6,10	5,13
4	Cyprus	5,56	5,41	5,34	5,34	4,20
5	Czech Republic	8,06	7,31	6,43	6,19	5,43
6	Germany	7,15	6,69	6,40	6,48	5,70
7	Denmark	6,35	5,91	5,58	5,40	4,92
8	Estonia	7,76	6,08	5,28	5,64	4,67
9	Spain	6,29	6,12	5,81	5,93	5,73
10	Finland	7,11	6,52	6,35	6,25	5,67
11	France	6,89	6,26	5,88	5,88	5,44
12	United Kingdom	6,88	6,38	5,96	5,95	5,53
13	Greece	7,49	6,60	6,33	6,04	5,12
14	Hungary	7,93	7,14	6,63	6,33	5,21
15	Ireland	6,65	6,04	5,92	6,00	5,26
16	Italy	7,55	7,06	6,61	6,33	5,92
17	Lithuania	8,32	6,37	6,02	6,14	4,99
18	Luxembourg	10,08	9,06	7,63	7,04	6,24
19	Latvia	7,19	6,44	5,16	5,86	4,67
20	Malta	8,24	7,19	6,87	7,41	6,58
21	Netherlands	6,41	6,20	5,93	5,89	5,29
22	Poland	7,65	7,04	6,28	6,37	5,48
23	Portugal	6,50	5,90	5,73	5,83	5,47
24	Romania	7,35	6,78	6,22	5,94	5,35
25	Sweeden	6,90	6,18	5,87	5,98	5,34
26	Slovenia	7,98	6,89	6,81	5,81	5,59
27	Slovakia	8,18	7,63	7,13	7,23	5,13

Table 5 - Export rates of growth differences between export EU27 and SCP programmes rates of growth

	YEAR	2007	2008	2009	2010	2011
1	Austria	0,58	0,98	0,42	-0,17	
2	Belgium	2,12	1,80	0,25	0,23	-0,32
3	Bulgaria	-0,71	-1,74	-4,52	-5,51	
4	Cyprus	3,96	2,71	2,04	1,64	0,30
5	Czech Republic	-5,14	-4,59	-6,47	-7,31	
6	Germany	-0,65	0,39	0,90	0,98	0,20
7	Denmark	1,45	2,91	2,08	1,80	2,92
8	Estonia	5,26	-0,32	-2,42	-2,06	-3,03
9	Spain	0,59	0,72	0,41	0,23	
10	Finland	1,41	1,82	1,35	1,75	1,67
11	France	1,19	-0,54	-0,92	-0,92	-1,36
12	United Kingdom	10,13	1,63	0,96	0,95	
13	Greece	-0,51	-0,70	-1,27	-1,66	
14	Hungary	-7,57	-5,76	-5,17	-5,17	-5,99
15	Ireland	-0,15	0,44	0,72	1,00	
16	Italy	5,55	4,26	3,11	2,53	1,82
17	Lithuania	-0,28	-5,83	3,62	-1,86	
18	Luxembourg	-0,22	2,16	-0,57	-0,76	
19	Latvia	-2,31	-2,66	-2,44	-1,64	
20	Malta	9,94	4,89	3,57	4,21	
21	Netherlands	0,16	-0,30	0,18	0,14	
22	Poland	-1,35	1,04	0,08	0,17	
23	Portugal	-0,40	-0,80	-0,27	-0,47	-1,03
24	Romania	-0,95	-3,52	-4,68	-4,76	
25	Sweeden	4,20	2,98	2,67	2,68	
26	Slovenia	-5,42	-3,41	-2,89	-2,99	-2,61
27	Slovakia	-12,92	-5,17	-1,77	0,43	

Table 6 – Percentage difference at year 2010 of EU27 exports with respect to exports assumed in the Stability/Convergence programmes

1	Austria	-1,65		15	Ireland	-1,87
2	Belgium	-4,08		16	Italy	-13,73
3	Bulgaria	12,16		17	Lithuania	3,97
4	Cyprus	-9,45		18	Luxembourg	-0,61
5	Czech Republic	23,84		19	Latvia	8,83
6	Germany	-1,56		20	Malta	-19,51
7	Denmark	-7,53		21	Netherlands	-0,20
8	Estonia	-0,50		22	Poland	0,02
9	Spain	-1,84		23	Portugal	1,83
10	Finland	-5,83		24	Romania	13,73
11	France	1,14		25	Sweeden	-11,27
12	United Kingdom	-12,49		26	Slovenia	14,45
13	Greece	3,95		27	Slovakia	18,80
14	Hungary	24,03				

4. Results

Tables 5 and 6 contain the results obtained under the second scenario. Table 5 shows export rates of growth differences between export EU27 and SCP programmes rates of growth. It is clear that a systematic bias characterizes the EU15 group from the EU12 one; in the old Member States group the underestimate of the export rates of growth prevails; on the contrary, new Member States declare an export performance not supported by the European foreign market represented by old and new Member States. The percentage difference between the export forecast from the Stability or Convergence programmes and those compatible with the observed BTT trade flows are shown in Table 6. Negative value are determine by export ‘underestimate’; the contrary, for positive values.

Although the sign of the mismatch largely dominate inside both EU12 and EU15, some exceptions deserve a special mention. Fig. 1-6 show that Germany and Poland do not suffer serious differences between Stability or Convergence programmes assumptions and BTT27 forecasts. Czech Republic and Slovakia may well show the cases of clear optimistic forecasts. The last two Figures, Estonia and Latvia, show that the export may follow different paths which, in the case of Estonia reach a level of export not far from those assumed in that country Convergence Programme.

Fig. 7 summarizes the simulation of exports filtered out from BTT27 and those assumed in the Stability or Convergence programmes.

Fig. 1

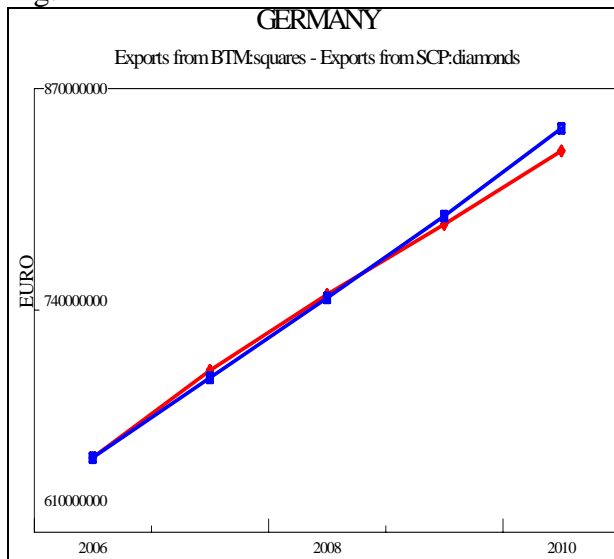


Fig. 2

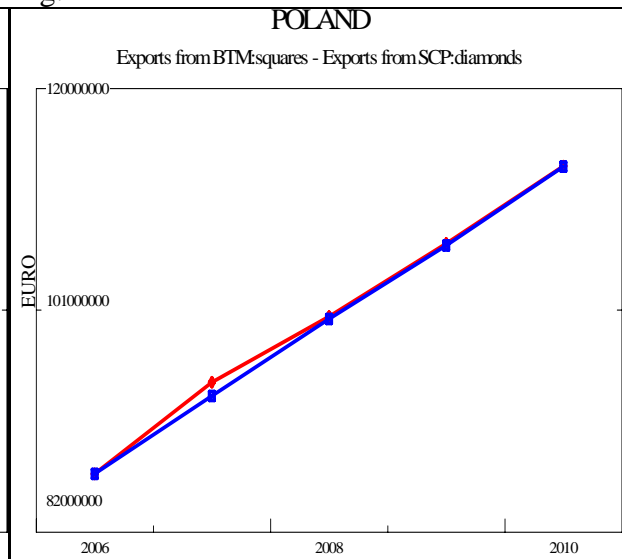


Fig. 3

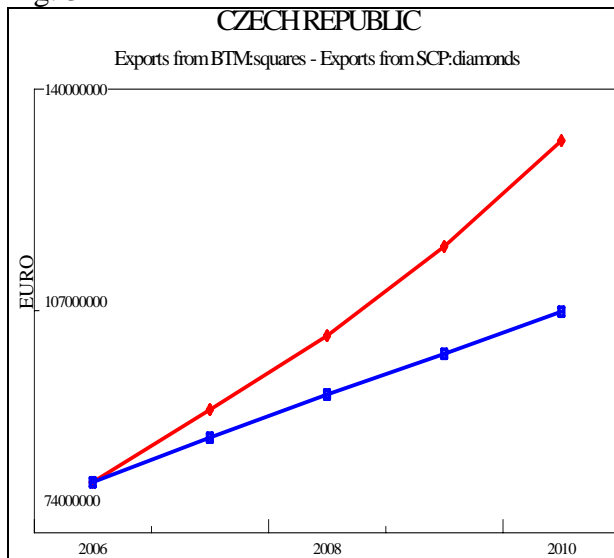


Fig. 4

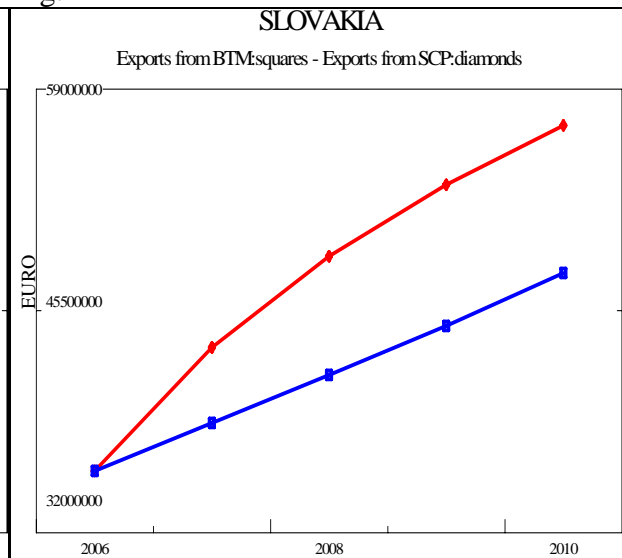


Fig. 5

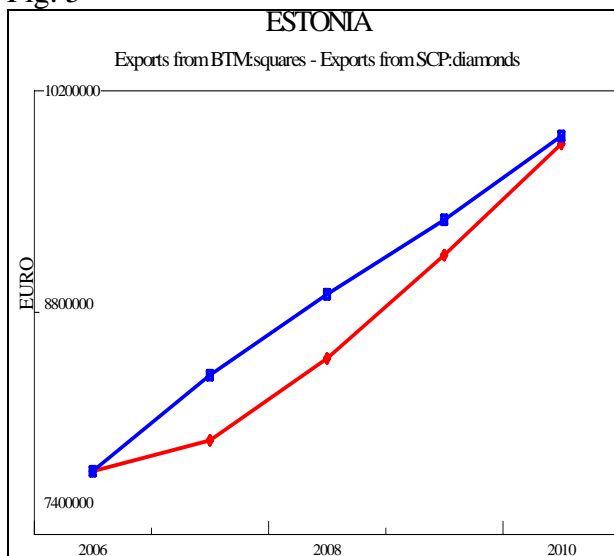


Fig. 6

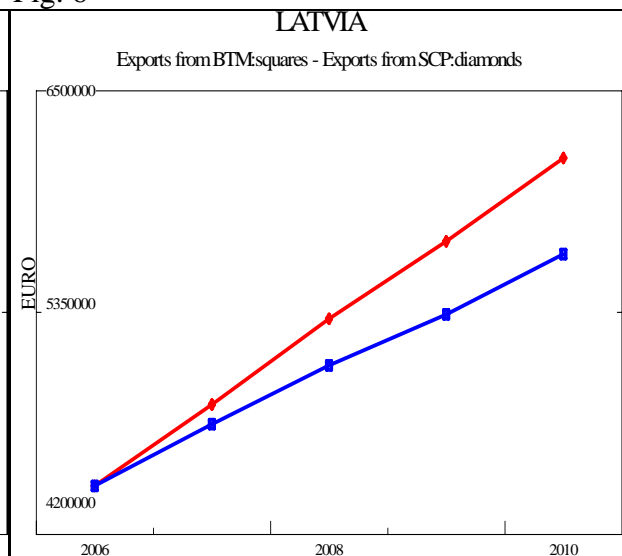
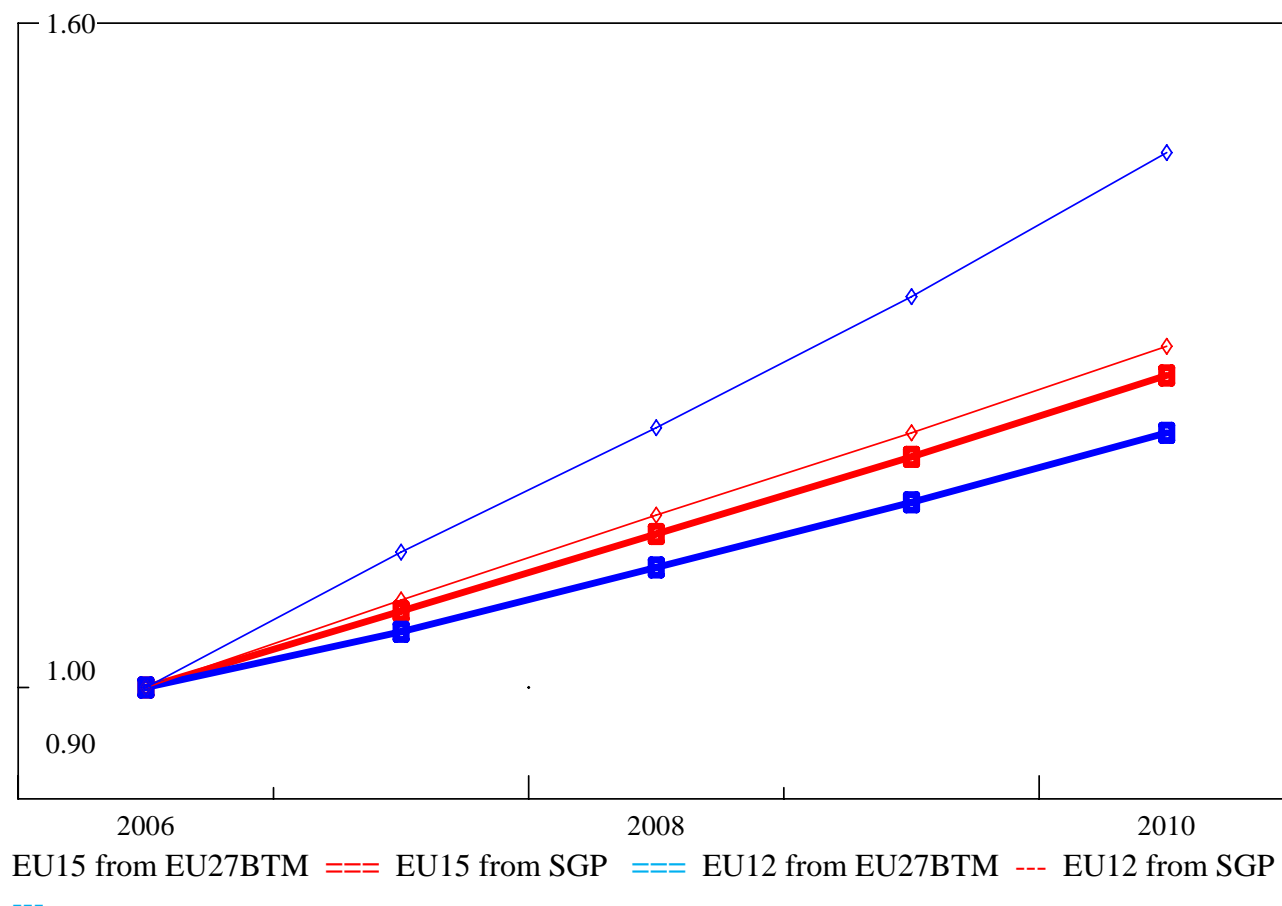


Fig. 7

Export performance under PSC programmes

Exports (2006=1)



5. Conclusions

As defined above, Table 5 gives evidence of the discrepancies between the assumption of export growth rates declared in the Stability or Convergence programmes and those obtained 'linking' the trade flows by means of the EU27 BTT.

European Commission carefully scrutinizes each Stability and Convergence programme and, among the judgments, the reliability of the assumptions supporting the macroeconomic forecasts is always considered; in general, such assumptions are accepted as trustworthy.

It is a matter of fact that these Stability or Convergence programmes contain demand side forecasts and other information used to evaluate Member State's fiscal policies, and these information mainly are supply-side variables. Since the surveillance focuses on fiscal policies, macroeconomic forecasts supported by demand side assumptions may receive less attention. But, it is a matter of fact that macrovariables such as GDP (real and nominal) have important impact on or strictly related to variables belonging to the set of those qualified as structural (potential output, labour supply, capital formation, total factor productivity).

The mismatch among Member State's demand (imports) and supply (exports) in the EU market may influence negatively each Member State economic performance in terms of GDP rate of growth (together with other correlated macrovariables).

Furthermore, the comparison between the export rates of growth contained in the Stability or Convergence programmes and those implied by the trade flows structure shown by the European foreign trade statistics (Comext) gives evidence that the European Commission mutual surveillance is conducted considering each Member State isolated from the rest of the European Union.