THE COMPETITIVENESS OF THE ROMANIAN EXPORTS DURING THE EU INTEGRATION PROCESS

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This paper focuses on finding out the leading sectors with high potential to maintain and consolidate the comparative and competitive advantages of the Romania's exports and analyses the change in the pattern of Romanian export specialisation by estimating RCA indexes over time. The study provides an in-depth analysis of the shifting export specialisation and links this analysis to the Romanian export potential. Further, the study uses the revealed comparative advantage framework to analyse the extent of export competition between Romania compared to the EU economy. It argues that the degree of competition among EU will intensify in the presence of growing trade liberalisation, competitive pressures, and the changing structure of world demand, and as a result, this study calls for a reassessment of the factors that influence Romania's export competitiveness, and for a reorientation of the Romanian exports.

1. Introductory remarks

Romania and the entire EU are facing now a changing international reality. Currently financial markets are in a severe crisis that has started to spill over to the real economy. Policy makers around the world are working to restore confidence in the financial system.

In 2008, volatile commodity, food and energy prices and the weakening of the dollar against the euro have influenced economic developments. These developments underline the need for Romania to further enhance its adaptation capacity to external shocks by developing a knowledge-based economy and boosting competitiveness through continued commitment to the EU Growth and Jobs Strategy.

The post-World War II era has been characterised by high growth rates in the world economy and a progressive reduction in barriers to international trade and investment. Productivity increases in agriculture and manufacturing, and more recently in services have been a major driver in the generation of income and wealth. There is massive empirical evidence that open economies are richer and more productive than closed economies. Studies focusing on income *level* find that one percentage point increase in the share of trade in GDP raises the level of income by between 0.9 to 3 per cent[171]. In an overview of studies about the income effects of openness, Lewer and Van den Berg (2003) found that a percentage point increase in the rate of growth of international trade increases the growth rate of the economy by about 0.22%. It is hard to believe this is a permanent effect, but even if it dies out after 10 years, income is still about 2.5% larger.

The link between openness and income is convincing, but it is more difficult to establish an empirical link between *trade policy* and income[172]. Moreover, it is hard to identify empirically which factors limit openness and the accompanying productivity gains. The theoretical channels between openness and productivity are clear (such as reallocation of resources, more competition, economies of scale, bigger variety of products, innovation, and knowledge spillovers), but their quantitative importance less so.

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[171] Examples are Badinger (2005), Frankel and Romer (1999), Frankel and Rose (2002), Wacziarg and Horn Welch (2003) and the overview of Nordas et al. (2006).

[172] See Nordas et al. (2006) and Wacziarg and Horn Welch (2003), among others.

Romanian exports competitiveness should be therefore at the centre of domestic economic analysis, along with the recent changes of the Romania's productivity growth, which is the key driver of competitiveness in the long run.

For these reasons, the present paper analyses different factors that may have an impact on competitiveness, such as the openness in trade and the comparative and competitive advantages of the Romania's exports, and analyses the change in the pattern of Romanian export specialisation by estimating RCA indexes over time. These are even more important because the recent researches pursued by the EU Commission and its economic specialists concluded that "the lack of knowledge of export markets and regulations in other countries are the main trade barriers. Import tariffs and duties are less important."[173] So, it is important to understand that the competitive advantages do not come from protectionism, quota or preferential access to the market. On the contrary, they lead to stagnation, low levels of entrepreneurial abilities and low motivations of the private sector towards efficiency, quality, innovation and product development.

2. Theoretical hypothesis and research methodology

Trade openness is generally considered to be a sectoral growth driver, as it improves the allocation of resources, increases the size of the market, allows for greater competition and increases the chances of attracting investment. One particularly important aspect is intermediate trade, as it allows industries to increase their competitiveness by importing cheaper, more sophisticated and more diverse inputs for production and new technologies. Another is trade in services, where the comparatively low level of current international transactions and the enduring restrictions due to regulatory barriers suggest a high potential to raise productivity and growth by opening markets and thereby increasing specialization and economies of scale.

The evolution in time of the trade specialisation is a phenomenon reflecting structural changes in the entire economic system of a country. In general, it needs time to make these changes because the comparative advantages in trade are not gained in a short time, especially because they are structural by definition. If the phenomenon is a rule, there are some exceptions, for example, when there are drastic changes in the ways of production as being determined by external factors, such as the spreading of a complete technology or vast institutional changes (for example, to take into consideration the situation of former communist countries which acceded the EU in 2004 and 2007, respectively).

A major importance in studying the foreign trade's performance and the export competitiveness of an economy is given by the profile of the specialisation, usually measured with the help of the comparative advantage, measured by different indicators, their choice depending on several factors, which relay on the main features of its economy. As a result, the specific analysis carried on in this paper implied the use of several indicators attentively selected and calculated (i.e. *the indicator of Revealed Comparative Advantage - RCA, Michaely indicator, Lafay indicator, Grubel-Lloyd inter-branch trade indicator*), pointing out advantages and disadvantages of each indicator from the point of view the characteristic aspects and influences of the Romanian external trade during its EU integration process.

For these considerations, the use of the *Indicator of the Revealed Comparative Advantage (RCA),* proposed by B. Balassa in 1965, was found appropriate for the analysis of the export competitiveness of Romania, being well known that it compares the relative size in a sector in a certain country in the total of exports made by that country with the relative size of the exports of a certain sector in a certain area given the exports of that particular area.

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[173] European Commission, Unit B4, Economic Analysis and Evaluation, DG Enterprise and Industry (2009), *European Competitiveness Report 2008*, Luxembourg: Office for Official Publications of the European Communities, 2009, p. 36

The computing formula of the indicators and the research methodology used in this paper are presented in another paper (see: Giurgiu, Adriana (2008) [174]).

3. Analyzing the Competitiveness of the Romanian Exports during 1991-2006

In what follows we are going to present the results we obtained regarding Romania's comparative advantage during 1991-2006, while trying to join the EU, for all the sections of products classified upon the Combined Nomenclature (CN).

Table 1: Evolution of Romania's export and import during 1990-2006 (%)

Year	Evolution of exports (US dollars) expressed in %	Evolution of imports (US dollars) expressed in %	Evolution of exports (Euro) expressed in %	Evolution of imports (Euro) expressed in %
1990	-44.931820	+9.046161	-59.589331	-19.969241
1991	-26,147186	-41,619019	-35,149293	-48,740771
1992	+2,297773	+7,542955	-9,558428	-4,814522
1993	+12,124685	+4.201949	+24,650194	+16,148425
1994	+25,735895	+9,000307	+23,381896	+6,978404
1995	+28,596976	+44,577296	+18,312040	+32,615949
1996	+2,199747	+11,257054	+5,579188	+14,844635
1997	+4,292429	-1,355488	+15,744615	+9,464344
1998	-1,530068	+4,946809	-0,923818	+5,253678
1999	+2,228379	-10,821085	+7,797297	-5,618939
2000	+22,151526	+23,662025	+41,318792	+42,953561
2001	+9,819620	+19,126771	+12,853721	+22,493129
2002	+21,809398	+14,795525	+15,351360	+8,675142
2003	+27,350736	+34,335966	+6,398637	+12,228045
2004	+33,146481	+36,088062	+21,269374	+23,961134
2005	+17,697512	+24,095747	+17,533668	+23,924128
2006	+17,193207	+25,389378	+16,158167	+25,108003
Average	+9,060899412	+12,60414194	-9,735594384	+9,735594353

Source: Personal computations based on statistic data provided by The Romania National Statistic Institute

Table 2: The Romania's rate of GDP growth, 1989-2006, basis in chain

Year	Real evolution of GDP (%)	Year	Real evolution of GDP (%)
1989	-5,8	1998	-4.8
1990	-5,6	1999	-1.2
1991	-12.9	2000	2.1
1992	-8.8	2001	5.7
1993	1.5	2002	5.0
1994	3.9	2003	4.9
1995	7.1	2004	8.3
1996	3.9	2005	4,1
1997	-6.1	2006	7,0

Sources: Personal computations based on statistic data provided by: European Institute of Romania – Impact Studies (PAIS II), p. 9, for the period 1991-1994; for the period 1995-2003, The Annual Report of the National Bank of Romania, 2003, p. 218; The Annual Reports of the National Bank of Romania regarding the External Payments Balance Sheet and the Investment Position of Romania, 1991-2006; The
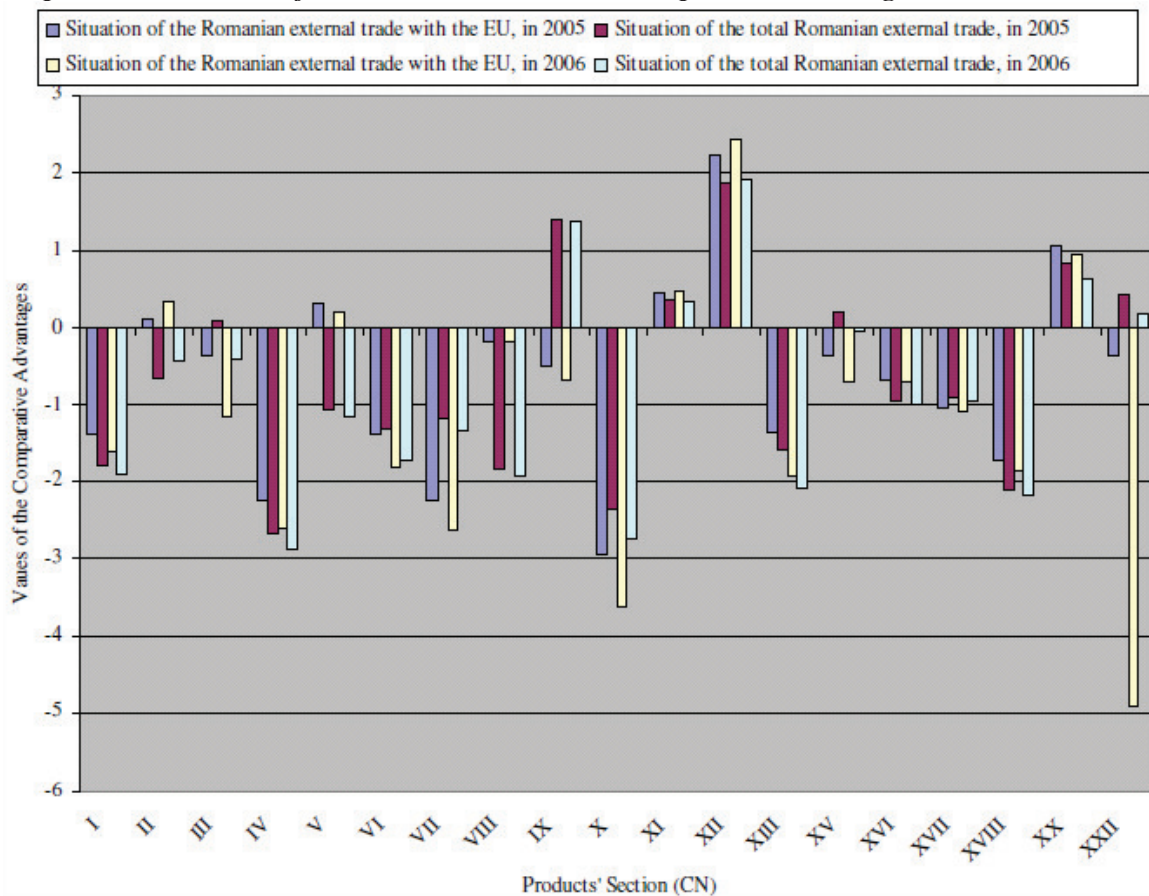
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[174] Giurgiu, Adriana (2008), *The Leading Economic Sectors Building Comparative and Competitive Advantages in Romania's Foreign Trade,* Theoretical and Applied Economics, Asociatia Generala a Economistilor din Romania - AGER, vol. 5(5(522)), pages 11-44, May.

Table 3: The evolution of Romania's external trade apparent comparative advantage, 1991-2006

Sections of CN \ Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
I	1,69	1,10	1,16	0,92	0,35	1,04	1,49	-1,12	-0,07	-0,20	-1,05	-0,92	-0,44	-0,92	-1,78	-1,91
II	-2,28	-3,10	-2,83	-0,91	0,39	1,15	-0,04	-0,33	0,15	-1,05	-0,85	-0,59	-1,70	-1,34	-0,67	-0,44
III	-1,08	-2,57	1,42	0,52	1,35	1,64	1,74	0,31	0,66	-0,69	-0,42	-2,50	-0,97	0,29	0,09	-0,41
IV	-3,11	-3,19	-2,87	-2,04	-2,73	-2,44	-1,86	-2,47	-2,34	-2,37	-2,40	-2,09	-2,34	-2,55	-2,68	-2,87
V	-1,97	-1,82	-1,58	-1,14	-1,59	-1,92	-1,77	-1,71	-1,14	-1,05	-1,42	-0,85	-1,18	-1,32	-1,06	-1,14
VI	-0,51	0,03	-0,53	-0,17	-0,33	-0,51	-0,70	-1,59	-1,36	-0,92	-1,21	-1,46	-1,45	-1,38	-1,31	-1,71
VII	-0,47	-1,06	-1,23	-0,54	-0,86	-1,19	-1,17	-1,53	-1,19	-1,18	-1,63	-1,30	-1,23	-1,07	-1,18	-1,32
VIII	0,46	-1,63	-1,57	-1,14	-1,79	-2,28	-1,91	-2,27	-1,91	-1,63	-1,74	-1,65	-1,72	-1,66	-1,83	-1,92
IX	1,60	2,24	2,35	2,44	1,99	2,48	2,51	2,65	2,47	2,40	2,15	1,85	1,86	1,73	1,40	1,38
X	-0,79	-2,42	-2,19	-1,63	-1,32	-2,21	-1,84	-2,72	-2,12	-1,61	-1,63	-1,56	-1,79	-1,80	-2,35	-2,75
XI	0,68	-0,30	0,23	0,41	0,34	0,36	0,29	0,24	0,15	0,20	0,24	0,23	0,31	0,34	0,35	0,33
XII	0,89	0,80	1,61	1,79	1,81	1,99	1,67	1,60	1,59	1,60	1,85	1,79	1,89	1,86	1,87	1,90
XIII	0,02	0,66	0,61	0,55	0,37	0,06	0,07	-0,05	0,04	-0,14	-0,40	-0,47	-0,70	-1,06	-1,58	-2,09
XV	1,31	1,43	1,66	1,29	1,25	0,81	1,13	1,00	0,80	0,77	0,39	0,39	0,29	0,40	0,20	-0,06
XVI	-0,26	-0,84	-1,29	-1,19	-1,52	-1,86	-1,69	-1,76	-1,17	-1,00	-1,01	-0,81	-0,96	-0,88	-0,97	-1,00
XVII	1,68	0,68	0,48	0,19	0,10	0,09	0,21	-0,18	0,09	-0,11	-0,40	-0,34	-0,52	-0,98	-0,93	-0,97
XVIII	-2,68	-2,60	-3,08	-2,72	-3,41	-3,34	-3,15	-2,83	-2,57	-2,70	-2,61	-2,47	-2,53	-2,16	-2,10	-2,18
XX	3,47	2,80	2,21	1,57	1,50	1,43	1,23	1,18	1,10	0,99	1,09	1,02	1,05	1,09	0,84	0,64
XXII	0,70	-1,03	0,40	0,06	-0,86	-1,61	-1,92	-1,66	-0,09	0,25	0,48	1,18	1,24	0,71	0,43	0,18

Source: see Giurgiu, Adriana (2008), The Leading Economic Sectors Building Comparative and Competitive Advantages in Romania's Foreign Trade

Graph 1: The situation of Romania's external trade comparative advantages in 2005 and 2006


Source: see Giurgiu, Adriana (2008), *The Leading Economic Sectors Building Comparative and Competitive Advantages in Romania's Foreign Trade*

3. Analyzing the Competitiveness of the Romanian Exports after joining the EU, in 2007

In what follows we are going to present the results regarding Romania's export competitiveness as an EU Member State.

Graph 2: Romania's competitiveness country fiche
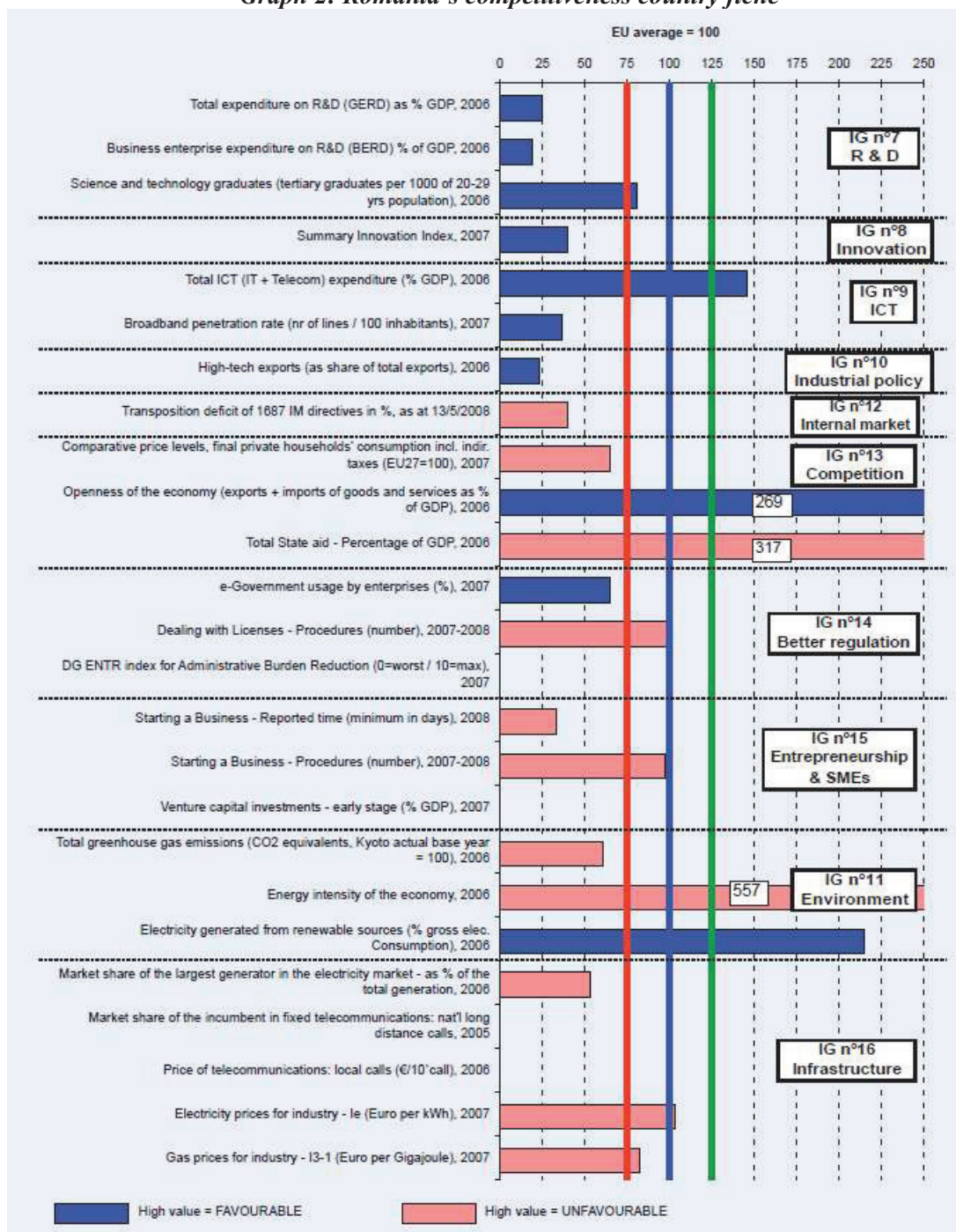
Source: European Commission, Unit B4, Economic Analysis and Evaluation, DG Enterprise and Industry (2009), European Competitiveness Report 2008, Luxembourg: Office for Official Publications of the European Communities, 2009, p. 188

The country fiche gives a snapshot picture of the competitiveness profile of Romania after joining the EU[175] and presents the performance of Romania in the policy areas covered by the microeconomic pillar of the Lisbon agenda, as it is presented into the *European Competitiveness Report 2008*. The openness indicator at EU level refers to extra-EU trade, while the openness indicators at Romania's level refer to total external trade (so intra-plus extra-EU trade). Providing a common framework for all Member States, the integrated guidelines for growth and jobs specify the overarching objectives to be pursued in each policy area constituting the microeconomic pillar. The link of these policies with competitiveness – taken here as the "capacity to grow" - is well established[176]. Higher productivity growth is the main channel through which these policies improve competitiveness.

4. Conclusions
The analysis in this paper tried to be pragmatic, making use of the best available data and research methods even though both are far from perfect. Despite the statistical challenges, the findings for 2007 and later (as much it was possible), are remarkably robust and stable compared with the findings in earlier papers. They show us that Romania had the indicator of export openness for total manufacturing goods more than double in the analyzed period. The office machinery and computer industry deserves special attention, as its openness indicator outperforms all the other sectors in the last years. Other industries with high indicators of export openness for Romania aggregates are radio, TV and communication, scientific instruments, and not to forget, leather, textiles and footwear. The motor vehicles and other transportation equipment industries also export a great part of the production within Romania, especially after joining the EU.

Those industries which increased their export openness most between in the last years in Romania were office machinery and computers; radio, TV and communications; leather and footwear, and clothing, a situation quite similar to the EU level. Radio, TV and communications, and to a somewhat lesser extent leather and footwear, appear to be industries where domestic demand is largely met by imports, as other transportation equipment, machinery, and motor vehicles have high import penetration indicators for the last years in Romania.

In the longer run, further adjustment of external imbalances could come from recent FDI driven improvements in export competitiveness[177]. In the first three quarters of 2008 export growth accelerated and exceeded import dynamics for the first time since 2004. While the economic downturn in the Euro Area (representing 70% of Romania's exports) may significantly dampen export performance in the short run, it is expected that once demand by the Euro Area will pick-up, the trade channel will play a more prominent role in boosting growth.

The improved export competitiveness has in particular been reflected in the composition of exports, showing an increasing share of higher value added products[178]. Furthermore, in spite of relatively low volumes, export market shares (as a percentage of world exports) have doubled from 0.15% to 0.3% between 2000 and 2007, in line with most other recently acceded Member States. And finally, notwithstanding increasing labour shortages and higher wage claims, the

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[175] The source and a short description of the indicators used in the country fiche are presented at the end of the *European Competitiveness Report 2008.* See European Commission, Unit B4, Economic Analysis and Evaluation, DG Enterprise and Industry (2009), *European Competitiveness Report 2008*, Luxembourg: Office for Official Publications of the European Communities, 2009, pp. 194-196.

[176] For example, see *European Competitiveness Report 2007* for a review of empirical evidence.

[177] Between 2000 and 2007, roughly 30% of all FDI inflows went to the tradable sector, leaving Romania in a middle position between on the one hand Bulgaria, Latvia and Estonia (with an average of 15%) and Czech Republic, Hungary and Slovakia with an average of 45%. See Pauwels, Stefaan (09.01.2009).

[178] For example, see Pauwels, S. and L. Ionita (2008).

exporting sector has managed to maintain profit margins[179] thanks to favourable export price developments. Furthermore, the improved exports performance until Q3-2008 has also been fuelled by a real effective exchange rate adjustment, from previously overvalued levels.

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[179] Profit margins as proxied by the difference between manufacturing unit labour cost developments and the export deflator. See Pauwels, Stefaan (09.01.2009).