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Romania's Recovery after the Economic Crisis

Claudiu Doltu and Marcel Duhaneanu

Abstract

Compared with other countries in the region, Romania reacted slowly to the recent economic and financial crisis. After eight years of strong growth (2001-2008), Romania's economic contraction was among the most severe in the region. Significant macroeconomic corrections occurred in 2010 but at the cost of compressing the household consumption and the investment. Downward adjusting the domestic demand by rapidly decreasing nominal wages and increasing taxes also discouraged businesses by increasing uncertainty. Partially, the macroeconomic policy worked well in 2010. However a steady growth in the next years will depend on the following three conditions: 1) reducing the transaction costs of doing business; 2) building critical infrastructure and; 3) raising human capital.

Introduction

In the first years of the transition (1990-1996) from a centralized economy to a market oriented system Romania recorded minor and slow progresses. From 1997-1999, tough macroeconomic and structural policies had been adopted allowing the country to vigorously approach accession to the European Union (EU). After three consecutive years of economic contraction (-6.1 in 1997, -4.8 in 1998, and -1.2 in 1999), the economy entered on a positive trend of economic growth starting with the year 2000. Between 2002 and 2008, the Romanian economy increased with an annual average of 6.4%, one of the highest economic growths in Central and Eastern Europe. This growth was exceeded only by Lithuania (7.5%) and Latvia (7.3%). On the background of the EU accession (2002-2005), the Romanian economy increased with an annual average of 5.8%. When the EU accession became certain (January 1, 1997), the economy increased by 7.9% (1996), and the growth remained vigorous in the following two years before the economic crises. In 2007 and 2008, the economy increased by 6.3% and 7.3%, respectively. Again, only the Baltic countries (Lithuania, Latvia, and Estonia) increased with higher rates, but only in 1997. Estonia and Latvia entered a recession in 2008, one year before Romania was finally contaminated by the world financial crises.

With a single exception—Poland—in all comparable countries in the region (former socialist countries) the world economic and financial crises were associated with recession. The length of the recession was shorter for some countries and longer for others. Bulgaria, Hungary, and Lithuania were in recession just one year, in 2009, and turned to positive economic growth in 2010. Romania, Croatia, and Estonia were in recession for

two consecutive years: the first two countries in 2009-2010, and the third one in 2008-2009. Latvia stayed in recession for three consecutive years, 2008-2010.

Table 1: Romania's Real Gross Domestic Product (GDP) since 2002

	2002	2003	2004	2005	2006	2007	2008	2009	Estim. 2010	Proj. 2011	Proj. 2015
Bulgaria	4.5	5	6.6	6.2	6.3	6.2	6	-5	0	2	5
Croatia	5.4	5	4.2	4.2	4.7	5.5	2.4	-5.8	-1.5	1.6	3
Estonia	7.9	7.6	7.2	9.4	10.6	6.9	-5.1	13.9	1.8	3.5	3.1
Hungary	4.4	4.3	4.9	3.5	4	1	0.6	-6.3	0.6	2	3
Latvia	6.5	7.2	8.7	10.6	12.2	10	-4.2	-18	-1	3.3	4
Lithuania	6.9	10.2	7.4	7.8	7.8	9.8	2.8	14.8	1.3	3.1	3.6
Poland	1.4	3.9	5.3	3.6	6.2	6.8	5	1.7	3.4	3.7	4.3
Romania	5.1	5.2	8.5	4.2	7.9	6.3	7.3	-7.1	-1.9	1.5	4.2

Source: *World Economic Outlook*, 2010

Table 2: The Length of Recession

	2008	2009	2010
Bulgaria		√	
Croatia		√	√
Estonia	√	√	
Hungary		√	
Latvia	√	√	√
Lithuania		√	
Poland			
Romania		√	√

Source: *World Economic Outlook*, 2010

Romania's economic contraction associated with the world financial crises started in 2009 and continued in 2010. In 2009, Romania's GDP declined by 7.1% compared with the previous year and the contraction continued in 2010 (-1.9%). For 2009 and 2010, the average economic growth in Romania was -4.5%, one of the most severe corrections, being exceeded only by the contractions in the Baltic countries (-9.5% in Latvia, -6.8% in Lithuania, and -6.5% in Estonia).

According to the International Monetary Fund (IMF) projections for 2015, Romania's economic growth may be above the economic growth in comparable countries in Central and Eastern Europe. However, it is difficult to predict when the pre-crisis high rates of economic growth will be achieved again. Romania's real economic growth may reach 4.2% in 2015, while the projection for the average growth in the region is just 3.3%. The average economic growth in the region was 5.3% in 2002, 6.5% in 2003, and 7.5% in 2006.

Method

Based on the analysis of the main macroeconomic statistics (GDP, Consumer Price Index, budget deficit, and current account deficit) for countries in Central and Eastern Europe in 2002–2009, and estimates and projections for 2011 and 2015, we formulated the following assumption: the development in the region will be more uniform over the next years. In other words, the new constraints for the public policies (mainly the sustainability of the public debt) after the recent major world financial crisis will reduce the maneuver space for the governments. The future growth of these countries will depend mostly on the speed and determination of implementing the new generation of reforms focused on the following three pillars: reducing the transaction costs of doing business, building critical infrastructure, and raising human capital.

In the first years after the fall of communism, the former socialist countries have had an uneven evolution explained mainly by the speed and depth of the first generation of reforms. The reforms addressed the liberalization—foreign trade, prices, foreign exchange, eliminating/reducing government subsidies—and restoring the private property. They were followed by the process of designing and using fundamental market institutions (legal and regulatory framework). Starting with the year 2000, the perspective of EU accession was a strong anchor for their credibility and between 2002 and 2007/2008 they enjoyed high levels of economic growth. In the same time almost all these countries accumulated significant disequilibria reflected mainly by the current account deficit. Bulgaria and the Baltic States recorded by far the most significant external imbalance in 2006–2008. Bulgaria reached current account deficits of 18.4% of GDP in 2006, 26.9% of GDP in 2007, and 24.2% of GDP in 2008. The current account deficit mounted to 22.5% of GDP and 22.3% of GDP in Latvia (2006 and 2007), and 15.3% of GDP and 17.2% of GDP in Estonia (2006 and 2007). Romania experienced high levels of the current account deficit in 2006–2008—10.4% of GDP, 13.4% of GDP, and 11.9% of GDP.

As long as these countries successfully attracted capital inflows, financing the external deficits seemed not to be a difficult task (Doltu & Duhaneanu, 2010). However, the major adjustments of these deficits, on the background of the world economic and financial crisis, show that such high levels of deficits are unsustainable in the long run. Their rapid and strong adjustment is associated with severe contractions of the GDP.

The average of the current account deficit for the considered countries (see Table 3) was 14.2% of GDP in 2007 and 11.6% in 2008. In 2009, the average current account deficit was just 0.4% of GDP. The massive correction of the external disequilibria seems to be followed in the next years by more orderly approaches of the domestic policies in the region aimed at containing the twin deficit problem (the current account deficit and the budget deficit).

The budget deficits for the next years will be significantly lower compared with the situation before the world financial crisis. The average budget deficit for the considered countries reached 6.7% of GDP in 2009, when the whole region (except Poland) was in recession. Preliminary figures for 2010 show a containment of the budget deficit to an average of 5.6% of GDP, and projections for 2011 and 2012 indicate that all governments in the region will continue prudent budget policies aimed at reducing the public deficit. On average, this could be at 4% of GDP in 2011 and 4.8% of GDP in 2012.

More uniform developments are also expected for the inflation rate. The average Consumer Price Index (CPI) reached a maximum of 9.1 in 2008, but inflation has been

rapidly contained in the following years. In 2010, the average CPI in the region was 2.7% and the projections for the next years show that the average CPI will continue to decrease (2.6% in 2011 and 2.5% in 2015). If in the past years the countries' performances in terms of inflation varied on a wide range, they turned narrower once countries entered the EU. The same pattern is even more evident for the future. Projections for 2011 show that only Romania and Hungary will continue to experience inflation rates above 3% and for 2015 no country in the region expects the inflation rate to exceed 3%.

Table 3: Current Account Deficit

	2002	2003	2004	2005	2006	2007	2008	2009	Estim. 2010	Proj. 2011	Proj. 2015
Bulgaria	-2.4	-5.5	-6.6	12.4	18.4	26.9	24.2	-9.5	-3	-3.1	-4
Croatia	-7.5	-5.3	-4.4	-5.5	-6.9	-7.6	-9.2	-5.3	-3.8	-4.7	-6.4
Estonia	10.6	11.3	11.3	-10	15.3	17.2	-9.7	4.5	4.2	3.4	-4
Hungary	-7	-8	-8.4	-7.2	-7.1	-6.5	-7.1	0.2	0.5	0.7	-1.8
Latvia	-6.6	-8.1	12.9	12.5	22.5	22.3	13.1	8.6	5.5	2.9	-2.5
Lithuania	-5.2	-6.9	-7.6	-7.1	10.7	14.6	12.2	4.2	1.9	0.2	-4.2
Poland	-2.8	-2.5	-4	-1.2	-2.7	-4.8	-5.1	-1.7	-2.4	-2.6	-2.4
Romania	-3.3	-5.8	-8.4	-9.8	10.4	13.4	11.9	-4.5	-5.1	-5.4	-4.9

Source: *World Economic Outlook*, 2010

Table 4: Budget Deficit

	2002	2003	2004	2005	2006	2007	2008	2009	2010	Proj. 2011	Proj. 2012
Bulgaria	-1.2	-0.4	1.8	1	1.9	1.1	1.7	-4.7	-3.8	-1.1	-1.8
Czech Republic	-6.8	-6.6	-2.9	-3.6	-2.6	-0.7	-2.7	-5.8	-5.2	-4.6	-4.2
Estonia	0.3	1.7	1.6	1.6	2.4	0.2	-0.2	-0.1	-1	-1.9	-2.7
Latvia	-2.3	-1.6	-1	-0.4	-0.5	-0.3	-4.1	-10.2	-7.7	-7.9	-7.3
Lithuania	-1.9	-1.3	-1.5	-0.5	-0.4	-1	-3.3	-9.2	-8.4	-7	-6.9
Hungary	-8.9	-7.2	-6.4	-7.9	-9.4	-5	-3.7	-7.2	-3.8	4.7	-6.2
Poland	-5	-6.2	-5.4	-4.1	-3.6	-1.9	-3.7	-7.2	-7.9	-6.6	-6
Romania	-2	-1.5	-1.2	-1.2	-2.2	-2.6	-5.7	-8.6	-7.3	-4.9	-3.5
Slovenia	-2.5	-2.7	-2.2	-1.4	-1.3	0	-1.8	-5.8	-5.8	-5.3	-4.7
Slovakia	-5.8	-2	-1.8	-2.2	-2.6	-1.8	-2.1	-7.9	-8.2	-5.3	-5

Source: *World Economic Outlook*, 2010

Table 5: The CPI (Average)

	2002	2003	2004	2005	2006	2007	2008	2009	Estim. 2010	Proj. 2011	Proj. 2015
Bulgaria	5.8	2.3	6.1	6	7.4	7.6	12	2.5	2.2	2.9	3
Croatia	1.7	1.8	2	3.3	3.2	2.9	6.1	2.4	1.9	2.8	3
Estonia	3.6	1.3	3	4.1	4.4	6.6	10.4	-0.1	2.5	2	2.5
Hungary	5.3	4.6	6.8	3.6	3.9	7.9	6.1	4.2	4.7	3.3	3
Latvia	2	2.9	6.2	6.9	6.6	10.1	15.3	3.3	-1.4	0.9	1.4
Lithuania	0.3	-1.1	1.2	2.7	3.8	5.8	11.1	4.2	1	1.3	1.7
Poland	1.9	0.8	3.5	2.1	1	2.5	4.2	3.5	2.4	2.7	2.5
Romania	22.5	15.3	11.9	9	6.6	4.8	7.8	5.6	7.9	5.2	3

Source: *World Economic Outlook*, 2010

Findings and Predictions

1. *Impressive economic growth on the background of accumulating disequilibria are not sustainable in the long run*

With one exception—Poland—in all Central and Eastern Europe, the last world economic and financial crisis was associated with severe recession. All countries experienced high economic growth before 2008, reaping the benefits of ending the first generation of reforms in the transition process. They also enjoyed the good prospects of EU accession and the first positive effects of entering the EU. However, they accumulated significant disequilibria reflected mainly by the current account deficit and budget deficit. The crisis marked strong adjustments of these imbalances and questioned the sustainability of growth on the background of accumulation of deficits (domestic and external).

2. *A more orderly development in the region is expected*

Wide differences continued to exist among the Central and Eastern European countries (and also the Baltic states) in terms of macroeconomic policies performance. These differences could be explained by the different approaches of the reform processes and also by the relatively large independence enjoyed by the national governments in following their own objectives and setting their economic policies. A more orderly approach signaled by the projections for the next years is now expected.

3. *More uniform economic growth rates*

The prospects for economic growth in the region are good. However, the rates of economic growth in the region are expected to be lower compared with the pre-crisis years. Also, the differences between countries in terms of real GDP growth are expected to narrow.

4. *Lower and more uniform deficits and inflation rates*

Narrow differences between the countries in the region are also expected in terms of budget deficits, current account deficits, and inflation rates. These prospects could be the result of the relatively common approach in their macroeconomic policies, enhanced by their various agreements with the IMF and the European Commission. Another argument supporting these prospects is the objective of entering the Euro zone. On the one hand,

there is no deadline for adopting the Euro. But, on the other hand, for the new member states there is no opt-out clause that would allow them to maintain their national currencies. Thus, they will join the Euro zone when they are fully prepared.

Discussion

What could be the economic prospects for the Romanian economy in the coming years? On the one hand, the general framework for the macroeconomic policies would not be too different from the other countries in the region. The monetary policy will continue to focus on reducing inflation and the fiscal policy will focus on reducing the budget deficit (Government of Romania, 2010). In other words, no significant changes of any major tax and no major public investment programs can be expected. On the other hand, we may ask, which can be the engines for economic growth and how can Romania achieve steady growth? In other words, how will the future economic growth be different from the pre-crisis economic growth?

Before the crisis, the main engines for the economic growth were household consumption and investment (see Table 6). They were most affected by the consequences of the international financial crisis and explain the difficulties encountered by the Romanian economy in getting out of the recession. Before the crisis, the economic growth was driven by domestic demand. Consumption contribution to the GDP declined slightly from about 79% in 2005 to 74% in 2008. However, investment increased its contribution from about 24% in 2005 to about 32% in 2008.

Table 6: Romanian GDP by Uses

	2005	2006	2007	2008
GDP	100	100	100	100
Household consumption	78.53	77.89	75.29	74.04
Government consumption	8.34	7.67	7.62	7.74
Gross fixed capital formation	23.72	25.61	30.20	31.92
Change in inventories	-0.43	0.85	0.77	-0.65
Net export	-10.16	-12.01	-13.89	-13.04

Source: Derived and Calculated from the Romanian National Institute of Statistics data, 2005-2008

The decrease of the domestic demand also explains the GDP contraction in the following two years. The GDP declined by 7.1% in 2009 and 1.9% in 2010. The domestic demand declined by 12.8% in 2009 compared to 2008 and with 2.4% in 2010 compared to 2009. The main pillars of the domestic demand—household consumption and investment—declined by about 9% and about 25% in 2009 over the previous year, and by about 3.4% and 1.5%, respectively in 2010 over 2009.

Analyzing the contribution to GDP growth by category of resources in 2005-2008 we observe that construction and services were by far the most dynamic economic sectors. However, they were the most affected by the financial crisis, once the “cheap money era” (easy access to credit, low interest rates) suddenly ended. Their contraction was also explained by the severe adjustments made by the government in 2010 when, on the background of financial crisis, nominal wages in the public sector were reduced by 25% and also the value added tax (VAT) was increased from 19% to 24%.

Table 7: Domestic Demand, Percentage Change over the Previous Year

	2009	2010
Domestic demand	-12.8	-2.4
Household consumption	-9.2	-3.4
Government consumption	1.2	-4.6
Gross fixed capital formation	-25.3	-1.5
Export	-5.5	7.0
Import	-20.6	4.1

Source: Government of Romania, Ministry of Public Finance, 2011

Table 8: Contribution to GDP Growth by Category of Resources

	2005	2006	2007	2008
GDP	4.2	7.9	6.3	7.3
Agriculture	-2.2	0.3	-1.2	1.2
Industry	0.7	1.8	1.3	0.5
Constructions	0.7	1.5	2.5	2.4
Services	4	3.3	3.4	2.6
Net taxes	1.0	1	0.3	0.6

Source: Romanian National Institute of Statistics, 2009

No significant changes are expected in the GDP structure for the next years. That explains why the Romanian economy is getting out of the recession so slowly. The projections for the real GDP growth show a slight growth of 1.5% in 2011, 3.9% in 2012, and 4.2% in 2015. This means that high economic growth rates like those before 2008 will not be realistic in the coming years. In other words, a steady growth for Romania could be around 4.2-4.5%. As domestic demand remains moderate, the main engine for growth will be exports. However, they will strongly depend on developments in the EU, which is the main market for the Romanian companies.

In this context, we turn to another basic scenario for the future development of Romania. The experience in the last 20 years shows that both the government and the non-government sectors have been running deficits (Croitoru & Tarhoaca, 2000). External financing is needed to offset the discrepancy between investments and national savings.

Conclusion

A significant increase of the domestic savings could not be expected at least for the next 10-20 years. This is not a pessimistic assumption. We consider that domestic saving is exclusively the result of higher income at the country level that in turn depends on the increase in productivity. Productivity is related with investment, which for the time being cannot be expected to significantly increase because of the low amount of domestic accumulations (savings) and thus a low level of investment. Also, the government indebtedness could not be viewed as a major vehicle through which public investments can generate sustainable growth. However, there are two reliable external financing sources that Romania could use. The first source is the EU structural funds—money that the

European Commission provides to the member states for development. The second reliable source is the foreign direct investments (FDI).

Table 9: Correlation between Savings and Investments in 2005-2007 (% of GDP)

	2005	2006	2007
Total economy			
Savings	14.1	15.4	16.8
Investments	23.9	25.8	30.2
Current account deficit	-9.8	-10.4	-13.4
Non-government sector			
Savings	11.2	11.1	12.9
Investments	19.8	19.3	23.7
Funding non-government deficit	-8.6	-8.2	-10.8
Government sector			
Savings	2.9	4.3	3.9
Investments	4.1	6.5	6.5
Budget deficit	-1.2	-2.2	-2.6

Source: Estimates based on the Romanian National Institute for Statistics data, 2009

So far, Romania has used less than 10% of the total EU money available for 2007-2014 and further increase of the absorption capacity will depend on the future changes in the public policies' design and implementation. When it comes to attract FDIs, before the financial crisis, Romania succeeded to change from an unattractive destination for the FDIs to one of the "champions" of the region, especially after the country joined the European Union (Doltu & Duhaneanu, 2010). The FDI inflows dramatically decreased since 2009, from about \$13.9 billion in 2008 to about \$4.9 billion in 2009 and about \$3.2 billion in 2010.

Now Romania is in an open competition for attracting FDIs with the rest of the world. Taking into consideration the previously analyzed macroeconomic milestones for development, what should the country do when it comes to attract FDIs? Accepting that the "fiscal competition" is not an option (just reducing taxes to attract FDIs may just not be the best approach), the Government effort may be focused on two directions.

The first direction is to identify and enhance what the business environments consider as "important factors" in their decision to invest somewhere or to locate somewhere. The second direction is to quickly eliminate the main differences from the domestic environment and the more attractive environment of the competitors—differences that can be viewed as barriers for the FDIs.

On the first direction, the new economic policies should enhance the already existing advantages, such as the significant domestic market size and its potential for growth. By population, Romania is the seventh largest country in the EU. As long as the living standard in Romania is well below the EU average, there is enough room for the domestic market to get wider and deeper, hand in hand with a sustainable increase of personal income. The Romanian consumers are open to new products and habits, and they have a remarkable propensity to consume. More, the geographic location of the country allows the design of a regional approach. Businesses located in Romania could easily expand to the Eastern Europe, Southeast Europe, or Central Asia.

Romanian human capital is another existing advantage. Even if Romania is not anymore a country with cheap labor, the workers can be relatively easily trained for specific jobs and are highly educated and motivated. More, the language barrier is not so relevant, the younger generations being already trained and open to speaking foreign languages.

The EU membership provides all the advantages in terms of rules and regulations, eliminates the risk of expropriation, guarantees profit repatriation, and eliminates the risk of restricting capital transfers. Most of the multinational companies already have a local history, and similarities with other successful markets can be easily identified. There are no major frequent threats to the security, and the trade unions are not a major barrier for businesses.

On the second direction—to quickly eliminate the main differences between the domestic and foreign investment environment in order to make the environment more attractive to competitors—solutions could be found by understanding the decision making process for individuals wanting to work and live abroad. The factors considered by individuals are also relevant for companies looking to invest abroad. Relocation and decentralization are good ways to stay closer to the clients, but usually they are costly. The financial costs of relocation and decentralization increase also because they include significant compensations that must be offered to the personnel who must take care of their family while abroad. There are also non-monetary costs that people consider when deciding to work abroad for their company. The living conditions, the quality of schools where employees' children will attend, the language in which they'll be educated, the availability of medical services and insurance, the access to public services, the traffic regulations and the ease of obtaining a driver license, the cultural environment, the availability of familiar products and brands, the entertainment, the access to justice and its quality, etc. are all important factors. The less developed and less friendly a country is the more costly it is for companies to pay benefits in order to convince qualified workers and managers to accept relocation in a new environment (Jovancevic & Sevic, 2006; Lall, 1997; Mowery & Oxley, 1995; Thiran & Yamawaki, 1995).

The underdeveloped physical infrastructure (roads, bridges, airports, railroads, harbors) may be turned into opportunities for greenfield investments if barriers for these are identified and removed. Given its relative scarcity, the returns tend to be higher in projects addressing many existing bottlenecks. In such investments, the monetary return may constitute feasible vehicle for asset creation and finance (Canuto, 2010).

Concluding, we could say that engaging in a new generation of reforms could ensure good perspectives for Romania's recovery after the economic crisis and future sustainable growth. The reforms should be focused on: 1) reducing the transaction costs of doing business; 2) building critical infrastructure and; 3) raising human capital.

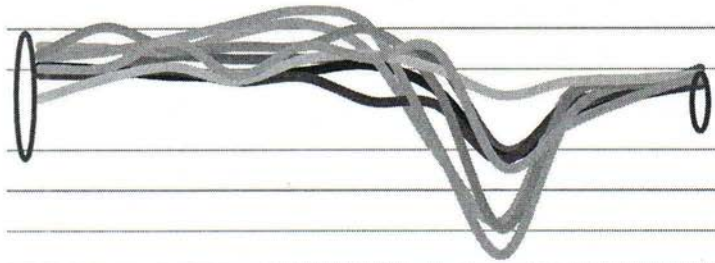
References:

- Canuto, O. (2010). Recoupling or Switcher: Developing Countries in the Global Economy. Economic Premises in: Canuto, O., & Giugale, M. (eds), *The Day after tomorrow: economic policy changes for developing countries after the crisis*. Washington, DC: World Bank.
- Croitoru, L., & Tarhoaca, C. (2000). *Fiscal Policy in Romania*. Bucharest, Romania: The Romanian Centre for Economic Policies.
- Croitoru, L., Doltu, C., & Tarhoaca, C. (2000). *Reforming the Tax System in Romania*. Bucharest, Romania: The Romanian Centre for Economic Policies.

- Doltu, C., & Duhaneanu, M. (2010, September). Incentives and Barriers for FDIs: The Romanian Experience, In *Leading and Managing Change from Economic Downturn to Recovery. Proceedings of the International Conference of the Institute for Business Administration in Bucharest, Third Edition.*
- Government of Romania, Ministry of Public Finance. (2010, October). *The Government Financial Strategy 2011-2013* (pp. 11-16). Bucharest, Romania. Retrieved from <http://codfiscal.money.ro/act-pdf/2010-09-16-Strategia-fiscal-bugetara-aprobata-Guvern-15-sept.pdf>.
- Jovancevic, R., & Sevic, J. (2006). Foreign Direct Investments in the Globalizing World: A Perspective. In Jovancevic, R., & Sevic, J., (Eds.), *Foreign Direct Investment Policies in South-East Europe* (pp. 3-14). London, UK: Greenwich University Press.
- Lall, S. (1997). East Asia. In J. H. Dunning, (Eds.), *Governments, Globalization and International Business* (pp. 407-430). Oxford, UK: Oxford University Press.
- Mowery, D. C., & Oxley, J. E. (1995). Inward Technology Transfer and Competitiveness: The Tole of National Innovation Systems, *Cambridge Journal of Economics*, 19(1), 67-93.
- Romanian National Institute for Statistics. Romania. (2009). *Anuarul Statistic al Romaniei*. Retrieved from <http://www.insse.ro/cms/rw/pages/index.ro.do>.
- Thiran, J. M., & Yamawaki, H. (1995). *Regional and Country Determinants of Location Decisions: Japanese Multinationals in European Manufacturing*. IRES Discussion Paper No. 9517. Louvain, Belgium: Universite Catholique de Louvain.
- World Economic Outlook: Recovery, Risk and Rebalancing*. (2010, October). Washington, DC: International Monetary Fund. Retrieved from <http://www.imf.org/external/pubs/ft/weo/2010/02/pdf/text.pdf>.

Appendices

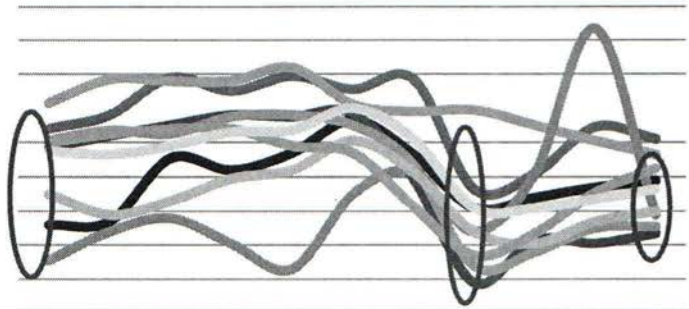
Appendix 1: Real GDP



	2002	2003	2004	2005	2006	2007	2008	2009	2010*	2011**	2015**
Bulgaria	4.5	5	6.6	6.2	6.3	6.2	6	-5	0	2	5
Croatia	5.4	5	4.2	4.2	4.7	5.5	2.4	-5.8	-1.5	1.6	3
Estonia	7.9	7.6	7.2	9.4	10.6	6.9	-5.1	-13.9	1.8	3.5	3.1
Hungary	4.4	4.3	4.9	3.5	4	1	0.6	-6.3	0.6	2	3
Latvia	6.5	7.2	8.7	10.6	12.2	10	-4.2	-18	-1	3.3	4
Lithuania	6.9	10.2	7.4	7.8	7.8	9.8	2.8	-14.8	1.3	3.1	3.6
Poland	1.4	3.9	5.3	3.6	6.2	6.8	5	1.7	3.4	3.7	4.3
Romania	5.1	5.2	8.5	4.2	7.9	6.3	7.3	-7.1	-1.9	1.5	4.2

*Estimate

** Projections

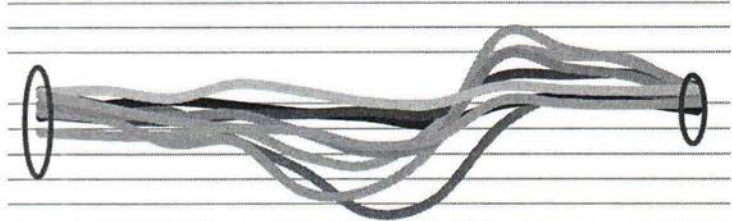
Appendix 2: Budget Deficit (% of GDP)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011*	2012*
Bulgaria	-1.2	-0.4	1.8	1	1.9	1.1	1.7	-4.7	-3.8	-1.1	-1.8
Czech Republic	-6.8	-6.6	-2.9	-3.6	-2.6	-0.7	-2.7	-5.8	-5.2	-4.6	-4.2
Estonia	0.3	1.7	1.6	1.6	2.4	0.2	-0.2	-0.1	-1	-1.9	-2.7
Latvia	-2.3	-1.6	-1	-0.4	-0.5	-0.3	-4.1	-10.2	-7.7	-7.9	-7.3
Lithuania	-1.9	-1.3	-1.5	-0.5	-0.4	-1	-3.3	-9.2	-8.4	-7	-6.9
Hungary	-8.9	-7.2	-6.4	-7.9	-9.4	-5	-3.7	-7.2	-3.8	4.7	-6.2
Poland	-5	-6.2	-5.4	-4.1	-3.6	-1.9	-3.7	-7.2	-7.9	-6.6	-6
Romania	-2	-1.5	-1.2	-1.2	-2.2	-2.6	-5.7	-8.6	-7.3	-4.9	-3.5
Slovenia	-2.5	-2.7	-2.2	-1.4	-1.3	0	-1.8	-5.8	-5.8	-5.3	-4.7

*Estimate

** Projections

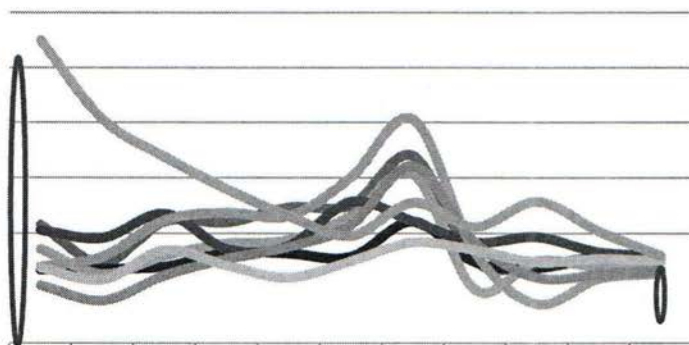
Appendix 3: Current Account Deficit (% of GDP)



	2002	2003	2004	2005	2006	2007	2008	2009	2010*	2011**	2015**
Bulgaria	-2.4	-5.5	-6.6	-12.4	-18.4	-26.9	-24.2	-9.5	-3	-3.1	-4
Croatia	-7.5	-5.3	-4.4	-5.5	-6.9	-7.6	-9.2	-5.3	-3.8	-4.7	-6.4
Estonia	-10.6	-11.3	-11.3	-10	-15.3	-17.2	-9.7	4.5	4.2	3.4	-4
Hungary	-7	-8	-8.4	-7.2	-7.1	-6.5	-7.1	0.2	0.5	0.7	-1.8
Latvia	-6.6	-8.1	-12.9	-12.5	-22.5	-22.3	-13.1	8.6	5.5	2.9	-2.5
Lithuania	-5.2	-6.9	-7.6	-7.1	-10.7	-14.6	-12.2	4.2	1.9	0.2	-4.2
Poland	-2.8	-2.5	-4	-1.2	-2.7	-4.8	-5.1	-1.7	-2.4	-2.6	-2.4
Romania	-3.3	-5.8	-8.4	-9.8	-10.4	-13.4	-11.9	-4.5	-5.1	-5.4	-4.9

*Estimate

** Projections

Appendix 4: Consumer Prices (Average)

	2002	2003	2004	2005	2006	2007	2008	2009	2010*	2011*	2015*
— Bulgaria	5.8	2.3	6.1	6	7.4	7.6	12	2.5	2.2	2.9	3
— Croatia	1.7	1.8	2	3.3	3.2	2.9	6.1	2.4	1.9	2.8	3
— Estonia	3.6	1.3	3	4.1	4.4	6.6	10.4	-0.1	2.5	2	2.5
— Hungary	5.3	4.6	6.8	3.6	3.9	7.9	6.1	4.2	4.7	3.3	3
— Latvia	2	2.9	6.2	6.9	6.6	10.1	15.3	3.3	-1.4	0.9	1.4
— Lithuania	0.3	-1.1	1.2	2.7	3.8	5.8	11.1	4.2	1	1.3	1.7
— Poland	1.9	0.8	3.5	2.1	1	2.5	4.2	3.5	2.4	2.7	2.5
— Romania	22.5	15.3	11.9	9	6.6	4.8	7.8	5.6	7.9	5.2	3

*Estimate

** Projections

Appendix 5: EU Membership

Member states of the European Union	Year of EU entry	Currency
Bulgaria	2007	Lev
Czech Republic	2004	Czech koruna
Estonia	2004	Euro
Hungary	2004	Forint
Latvia	2004 Fifth EU	Lats
Lithuania	2004 Enlargement	Litas
Poland	2004 Sixth EU	Zloty
Slovakia	2004 Enlargement	Euro
Romania	2007	Leu