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Coping with Macroeconomic Imbalances: Bulgaria's Experience during the Global Turmoil

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Macroeconomic imbalances and crises

It is textbook knowledge that economic crises are in most cases associated with the accumulation of macroeconomic imbalances. In turn, macroeconomic imbalances emerge as the result of imbalanced growth. In the ideal world of equilibrium, all macroeconomic variables change at the same, equilibrium growth rate. The real world is one of disharmony and disequilibria, when there are significant divergences in the rates of growth of economic variables. When speed differentials are within certain limits, the resulting macroeconomic imbalances are manageable through the instruments of macroeconomic policy and are not a matter of concern. Crises emerge when disequilibria get out of control and the economy is incapable of coping with significant speed differentials among key economic variables.

It is generally considered that the risks for an economy to fall victim to a crisis are associated with the magnitude of its macroeconomic imbalances. Existing imbalances, their depth and protractedness, as well as the degree to which they are interlinked with other aspects of economic performance, are considered as warning signals of possible future crises. This is why imbalances are usually carefully measured and monitored by macroeconomic management.

In a globalized economy, crises are also increasingly internationalized. They can be transmitted into, and out of the affected country either directly – through international financial and trade flows – or indirectly, when market perceptions generated in, and reflecting the specificities of a given economy are passed on to another one. The phenomenon known as 'herd behaviour' of market participants may result in ramification even in places that would otherwise not have been affected by direct or indirect effects.

The causality links between macroeconomic imbalances and crises are not always clear or easy to identify (Gros, 2012). The susceptibility of an economy to disturbing influences

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generated elsewhere, i.e. their vulnerability to contagion effects, depends on a myriad of factors (see, among others, Claessens and Forbes, 2001; Dornbusch, Park and Claessens, 2000). *Ceteris paribus*, emerging economies are generally considered to be more prone to contagion. This is related both to the higher risks that financial markets assign to emerging economies (hence there is a higher probability that they would fall victim to herd behaviour) and to the fact that many institutions in emerging markets are still immature and not always well prepared to react adequately to emerging threats.

Therefore a combination of existing macroeconomic imbalances and an emerging economy status generally serve to amplify the risks of a crisis in such an economy. This was clearly manifested during the 1997-1998 Asian financial crisis, when contagion rapidly spread throughout the whole region and the crisis hit both economies that were weakened by their macroeconomic imbalances and those where imbalances posing risks to macroeconomic stability only emerged as a result of contagion.

Experiences of different economies during the recent global economic and financial crisis has enriched the understanding of both the importance of macroeconomic imbalances as potential sources of an indigenous crisis and the role of different types of contagion effects and their transmission mechanisms and channels. Notably, while the crisis initially started in the United States, Europe has now taken the centre stage, with a number of countries struggling to rein in their ever mounting macroeconomic imbalances.

This paper is focused on Bulgaria's experience during the global turmoil. From the viewpoint of the issued addressed in the paper, it is an interesting case in that although it featured a range of imbalances and these escalated in the lead-up to the crisis, they never gave rise to anything that comes close to a macroeconomic crisis. Hence the main policy research question addressed in the paper is related to the factors that can translate macroeconomic imbalances into a crisis or, conversely, prevent imbalances from escalating into a crisis.

Bulgaria is a new member of the EU; it is an emerging economy that went through a difficult transformation from plan to market in a historically recent period. During the first decade of economic and political transformation (1990-2000), Bulgaria was one of the 'transition failures'. The hectic stop-and-go policies and the lack of clear direction of the reform course culminated in a deep economic and financial crisis in 1996-1997 (Dobrinsky, 2000, 1997).

On the other hand, the crisis of the 1990s was a dividing line in Bulgaria's transition. It paved the way for wide ranging macroeconomic and institutional reforms that ultimately led to EU membership in 2007 (Dobrinsky, 2012). The decade 2000-2010 was in general one of macroeconomic stability (underpinned by a currency board arrangement) and relatively

stable growth. From being considered as a 'pariah' during the 2000s Bulgaria acquired an almost 'role model' status in some aspects such as fiscal performance.

However, in the second half of this decade Bulgaria's economy was subject to mounting pressures which resulted in the emergence of significant macroeconomic imbalances, some of which reached dangerous proportions. So when the global and financial crisis hit, there were rising fears that contagion coupled with indigenous imbalances might give rise to another full-blown crisis. However, Bulgaria so far has managed to avoid such a course of events: in terms of macroeconomic and financial stability, the economy went through the period of global turmoil surprisingly smoothly.

How and why was this possible? What were the mechanisms that prevented imbalances to translate into a crisis? Was this made possible by other, hidden factors that usually escape the scrutiny of analysts? Was there a 'price' to be paid for avoiding a crisis? What was the role and contribution of fiscal policy? Was stringent fiscal restraint a true virtue during the times of crisis and were there alternative policy courses?

This paper seeks to provide some clues to questions of this sort. It starts with an overview of Bulgaria's macroeconomic policy framework and reviews the dynamics of the emerging imbalances against this background. The paper then provides some analytical insights into the factors that contributed to preserving macroeconomic stability in the presence of large imbalances and the mechanisms through which imbalances have been reduced. It also looks at some of the 'costs' of this macroeconomic course, in particular, the implied growth and employment sacrifice.

Macroeconomic imbalances under a currency board arrangement

Before moving to a more in-depth analysis of Bulgaria's economic performance during the crisis, we shall take a closer look at its macroeconomic arrangements and the related policy framework (for more details see Dobrinsky, 2001).

The key instrument of macroeconomic stabilization in Bulgaria in the aftermath of the mid-1990s crisis was a currency board arrangement (CBA) which started operation in July 1997. Under the CBA, the Bulgarian authorities forfeited the conduct of independent monetary policy with the central bank being precluded from performing open market operations or refinancing commercial banks. Under a system of the type applied in Bulgaria money supply (defined as base money) is set in a one-to-one proportion to the level of the foreign reserves held by the central bank. Thus a rise in reserves automatically results in an expansion of the monetary base and vice versa. The nominal exchange rate is fixed for an indefinite period of time and the convertibility of base money is unlimited. Since the central bank does not perform open market operations, it has no discretion over

interest rates which in principle should be market determined. Domestic prices are expected to be fully flexible, with prices of tradables responding instantaneously to changes in international prices. Under these arrangements there is no room for sovereign monetary policy: a country applying a CBA *de facto* 'borrows' the monetary policy of the country of the reserve currency.

While the instruments of fiscal policy are in principle available to policy makers, the degrees of fiscal policy freedom are limited by long-term fiscal sustainability concerns (Dobrinsky, 2001). Bulgaria's fiscal policy under the CBA was set up under a medium-term fiscal framework designed to guarantee fiscal sustainability (Horvath and Székely, 2003). In practical terms, if the macroeconomic regime is to be sustained indefinitely, the degrees of freedom in the conduct of fiscal policy are extremely limited. The only sustainable fiscal policy course is the one in which the government maintains a primary fiscal balance consistent with, and responsive to the level of government debt. Hence fiscal policy, by definition, is deprived of its main macroeconomic policy variable: the possibility of maintaining an independently targeted fiscal position. In this sense the authorities have zero degrees of macroeconomic policy freedom.

The elimination of important policy tools under a CBA is to be compensated by the effect of specific mechanisms which should be self-activated in the case of external disturbances. The interest rate mechanism is one of the most important of such 'self-stabilizers' which responds to changes in money demand (a nominal external disturbance). If money demand is stable, it is to be expected that the domestic interest rate will move in parallel to that of the reserve currency country, with an adjustment reflecting risk premia and possible restrictions on convertibility (in the general case, it is only base money that is fully convertible). However, when money demand changes in one direction or another (which is associated with an outflow or inflow of reserves), interest rates are expected to respond, thereby smoothing money demand and counterbalancing the change in reserves.

A second, crucially important 'self-stabilizer' is the labour market. In the case when the labour market is characterized by sufficient degrees of flexibility it can act as an efficient 'shock absorber' of negative real external shocks, minimizing the negative pass through to the macroeconomic situation. Conversely, labour market rigidities (both regarding labour input and wages) would impact negatively on unit labour costs (and hence international competitiveness) could endanger the external macroeconomic position of the country.

Price flexibility should in principle be another such stabilizer allowing the economy to adjust to changes in real final demand. For example, a negative shock to export demand is to translate into falling domestic prices (as the exchange rate is fixed); this would improve the competitive position of domestic producers, eventually leading to a recovery in exports.

However, in real life, the perfect operation of these stabilizers is not guaranteed by the design of the CBA and there is no guarantee that they will operate effectively in response to disturbances or shocks. In fact the operation of the stabilizers mirrors the functioning of markets and of the economic environment in general. It depends on a myriad of factors such as the regulatory framework and its enforceability, the predictability of policy and the economic environment, the existence and extent of market imperfections, etc. While in the short run policy is relegated to a passive observer of the operation of the stabilizers, it can seek to improve their operation through structural measures with medium-term effect (for example, by enhancing a competitive environment, eliminating market distortions, further liberalizing the economy and ensuring consistency and transparency in the policy process).

What happens if there are systemic distortions (due to market or/and policy imperfections) in the operation of some automatic stabilizers? Consider, for example, a situation of sticky prices and/or wages. The unpleasant outcome is that policy makers will not have efficient policy options to counterbalance the systemic deviation from the pre-set path of macroeconomic performance. As the imbalances may vary in character, there might be different scenarios possible, including more favourable ones. For example, the interest rate mechanism may fail to neutralize a persistent capital inflow (especially when led by FDI). However this might possibly be a case of a 'virtuous' imbalance, with the economy receiving a positive stimulus from the excessive capital inflow which could set it on a path of accelerating growth.

On the other hand, what can be expected in the case of a demand shock coupled with wage or price inertia? The likely outcome would be loss in competitiveness, deterioration in the trade and current account balances and further negative impact on economic activity. If the situation is further aggravated, the economy could be locked into a suboptimal path of worsening output performance coupled with deteriorating external balances. In this situation, policy makers may be driven into the uncomfortable position of passive observers without the possibility of intervening to reverse the course of economic performance. In such an event, the accumulating imbalances may jeopardize public sector solvency and, ultimately, the CBA itself.

Thus the efficiency of the CBA as a macroeconomic policy regime – and indeed the sustainability of such a regime – hinges to a great extent on the performance of the stabilizers. In turn, the latter crucially depends on the efficient performance of markets and the adherence to coherent and sustainable economic policies. Fiscal policy as such – while possibly remaining responsive to the level of public debt, which is a general requirement for fiscal solvency – may not be sufficient to guarantee long-term sustainability of a CBA regime in the presence of systemic distortions inhibiting the functioning of the stabilizers. It needs to be complemented with broad and deep structural and market reforms that support the efficient functioning of markets and a coherent and predictable economic environment.

Table 1

Bulgaria: Selected Economic Indicators, 1998-2011

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Population, th pers., average [1)]	8230.4	8190.9	8170.2	8020.3	7868.5	7823.6	7781.2	7739.9	7699.0	7659.8	7623.4	7585.1	7534.3	7364.6
Gross domestic product, BGN mn, nom.	22421.1	23790.4	27398.7	30298.9	33188.8	35811.8	39823.6	45483.8	51783.1	60184.6	69295.0	68321.6	70511.2	75265
annual change in % (real)	4.0	2.3	5.7	4.2	4.6	5.5	6.8	6.4	6.5	6.4	6.2	-5.5	0.4	1.7
GDP/capita (EUR at exchange rate)	1377	1481	1700	2000	2200	2400	2600	3000	3400	4000	4600	4600	4800	5200
GDP/capita (EUR at PPP)	4640	4900	5400	5900	6500	7000	7500	8200	9000	10000	10900	10300	10700	.
Consumption of households, BGN mn, nom.	16741.2	18791.2	18620.1	21181.0	22933.7	24640.8	27424.5	31309.0	34761.9	41300.8	45765.7	42942.1	42844.4	45150
annual change in % (real)	2.6	9.3	7.3	7.9	3.6	6.7	7.6	6.9	8.7	9.1	3.4	-7.6	-1.3	1.4
Gross fixed capital form., BGN mn, nom.	2919.8	3600.5	4324.6	5536.6	6060.3	6806.6	8108.9	11711.3	14297.5	17263.9	23282.6	19724.3	16546.4	16000
annual change in % (real)	35.2	20.8	16.8	20.9	7.6	12.9	13.7	30.8	13.1	11.8	21.9	-17.6	-16.5	-7.0
Gross industrial production [2)]														
annual change in % (real)	-8.5	-8.0	8.3	2.1	4.7	13.0	12.8	7.0	6.0	9.6	0.6	-17.4	1.1	4.9
Gross agricultural production														
annual change in % (real)	-1.5	3.8	-9.9	1.1	5.3	-9.9	6.6	-6.0	-0.1	-21.0	33.0	-1.6	-5.1	-2.1
Construction industry [2)]														
annual change in % (real)	-0.2	8.8	8.0	14.3	3.0	5.3	35.1	31.9	23.9	27.9	12.6	-14.5	-17.9	-12.8
Employed persons - LFS, th, average	3034.8	2875.3	2794.7	2698.8	2739.6	2834.8	2922.5	2981.9	3110.0	3252.6	3360.7	3253.6	3052.8	2949.6
annual change in %	-0.8	-5.3	-2.8	-3.4	1.5	3.5	3.1	2.0	4.3	4.6	3.3	-3.2	-6.2	-3.4
Unemployed persons - LFS, th, average	497.5	534.0	566.8	663.9	592.4	448.7	399.7	334.4	305.7	240.2	199.7	238.0	348.1	372.2
Unemployment rate - LFS, in %, average	14.1	15.7	16.9	19.7	17.8	13.7	12.0	10.1	9.0	6.9	5.6	6.8	10.2	11.2
Reg. unemployed persons, th, end of period	465.2	610.6	682.8	662.3	602.5	500.7	450.6	397.3	337.8	255.9	232.3	338.1	342.4	342.4
Reg. unemployment rate, in %, end of period [3)]	12.2	16.0	17.9	17.3	16.3	13.5	12.2	10.7	9.1	6.9	6.3	9.1	9.2	10.4
Average gross monthly wages, BGN	183.3	201.0	224.5	240.0	257.6	273.3	292.4	323.7	360.3	430.6	544.8	609.1	647.4	697.7
annual change in % (real, gross)	20.7	6.9	1.3	-0.4	1.5	3.7	0.8	5.4	3.8	10.3	12.6	8.8	3.8	4.2
Consumer prices (HICP), % p.a.	18.7	2.6	10.3	7.4	5.8	2.4	6.1	6.0	7.4	7.6	12.0	2.5	3.0	3.4
Producer prices in industry, % p.a.	18.7	2.8	18.0	3.0	1.7	5.0	7.1	7.9	12.0	7.7	10.9	-6.5	8.6	9
General government budget, EU-def., % GDP														
Revenues	39.7	40.7	40.7	41.7	38.4	38.7	40.4	38.3	36.2	40.9	40.0	36.3	34.9	35
Expenditures	38.4	40.5	41.3	40.6	39.6	39.1	38.6	37.3	34.4	39.8	38.3	40.7	38.1	37
Net lending (+) / net borrowing (-)	1.3	0.2	-0.5	1.1	-1.2	-0.4	1.9	1.0	1.9	1.2	1.7	-4.3	-3.1	-2
Public debt, EU-def., in % of GDP	79.6	79.3	72.5	66.0	52.4	44.4	37.0	27.5	21.6	17.2	13.7	14.6	16.3	16

Table 1 (continued)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Average short-term commercial lending rates, %	14.2	13.6	12.2	11.7	10.0	9.2	9.1	8.2	8.4	10.0	10.9	11.6	11.2	10.9
Average short-term deposit rates, %	3.0	3.3	3.1	3.2	2.8	3.1	2.9	3.2	3.2	4.2	5.1	7.0	6.5	5.7
Current account, EUR mn	-28.5	-586.9	-761	-855	-403	-972	-1307	-2706	-4648	-7755	-8183	-3116	-476	744
Current account in % of GDP	-0.3	-4.8	-5.4	-5.5	-2.4	-5.3	-6.4	-11.6	-17.6	-25.2	-23.1	-8.9	-1.3	1.9
Exports of goods, BOP, EUR mn	3746.9	3733.7	5253	5714	6063	6668	7985	9466	12012	13512	15204	11699	15561	20097
annual growth rate in %	-11.9	-0.4	40.7	8.8	6.1	10.0	19.7	18.6	26.9	12.5	12.5	-23.1	33.0	29.1
Imports of goods, BOP, EUR mn	4075.3	4741.4	6533	7493	7941	9094	10938	13876	17574	20757	23802	15873	18325	21942
annual growth rate in %	2.7	16.3	37.8	14.7	6.0	14.5	20.3	26.9	26.7	18.1	14.7	-33.3	15.4	19.7
Exports of services, BOP, EUR mn	1602.7	1686.2	2366	2429	2455	2729	3262	3564	4187	4760	5355	4916	5164	5395
annual growth rate in %	-17.7	5.2	40.3	2.6	1.1	11.1	19.5	9.3	17.5	13.7	12.5	-8.2	5.0	4.5
Imports of services, BOP, EUR mn	1249.4	1380.6	1819	2098	1950	2176	2606	2745	3264	3587	4046	3617	3149	2994
annual growth rate in %	4.1	10.5	31.7	15.3	-7.1	11.6	19.8	5.3	18.9	9.9	12.8	-10.6	-12.9	-4.9
FDI inflow, EUR mn	605.1	866.0	1103	903	980	1851	2736	3152	6222	9052	6728	2437	1779	1064
FDI outflow, EUR mn	0.1	16.3	4	11	29	23	-166	249	141	206	522	-68	193	125
Gross reserves of NB excl. gold, EUR mn	2290.9	2878.7	3393	3752	4250	4981	6443	6814	8309	11216	11928	11943	11612	11788
Gross external debt, EUR mn	9295.0	10846.6	11883	11935	10769	10641	12562	15507	20691	29017	37246	37816	37042	35431
Gross external debt in % of GDP	81.8	89.2	84.7	76.7	63.2	57.9	61.6	66.7	78.1	94.3	105.1	108.3	102.8	92.1
Average exchange rate BGN/EUR	1.972	1.956	1.9522	1.9482	1.9492	1.9490	1.9533	1.9558	1.9558	1.9558	1.9558	1.9558	1.9558	1.9558
Purchasing power parity BGN/EUR	0.585	0.591	0.6195	0.6508	0.6512	0.6595	0.6848	0.7161	0.7454	0.7838	0.8358	0.8686	0.8790	.

Notes: Gross industrial production, construction output and producer prices refer to NACE Rev. 2.

1) Based on Census February 2011. - 2) Enterprises with 10 and more employees. - 3) From June 2011 based on lower census February 2011 data, not comparable to previous periods. - 4) Base interest rate. This is a reference rate based on the average interbank LEONIA rate of previous month (Bulgaria has a currency board).

Source: wiiw Database, National Statistical Institute, Bulgarian National Bank.

Bulgaria's performance in a comparative perspective

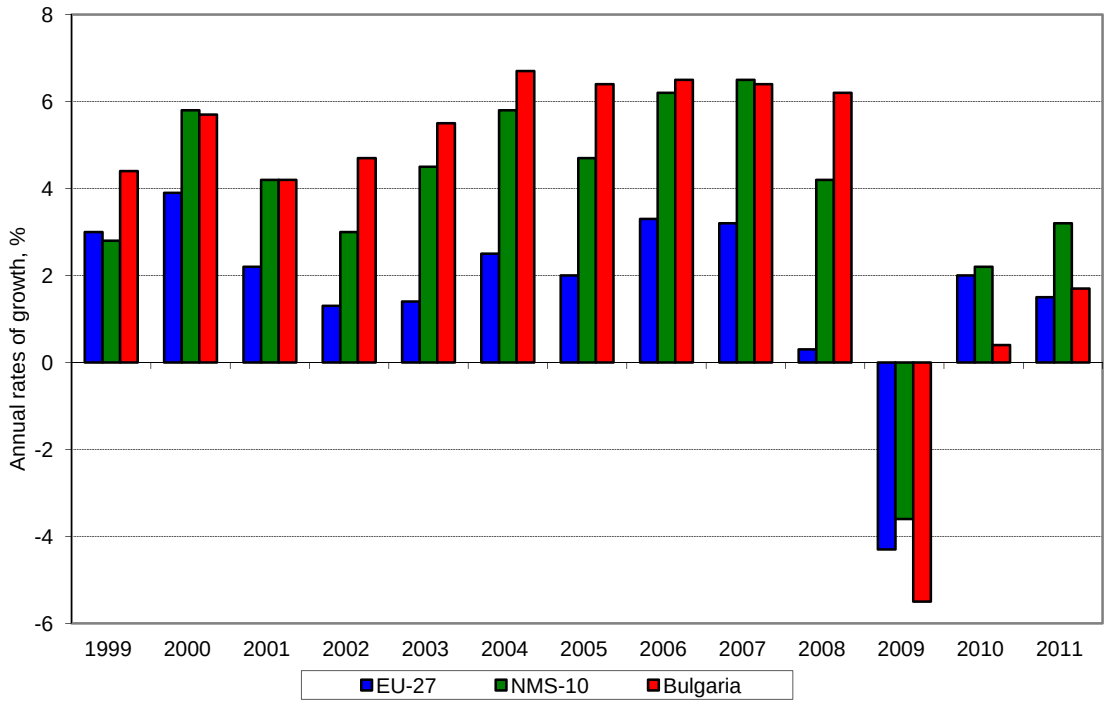
In terms of macroeconomic performance, the years before the current crisis were a period of macroeconomic stability and growth in Bulgaria (Table 1). Between 1998 and 2008, Bulgaria's gross domestic product rose by 64% and gross industrial output by 170%. Most of this growth was achieved thanks to productivity gains: employment during this period increased by just 18%. While domestic prices remained under pressure and inflation was high compared to that prevailing in mature market economies, it was of the nature of 'catch-up inflation' which is not necessarily a sign of underlying macroeconomic imbalances (Dobrinsky, 2006).

It is instrumental to compare Bulgaria's macroeconomic performance in this period with the averages for the EU as a whole (EU-27) as well as to the new EU member states from central and eastern Europe (NMS-10). Charts 1 to 3 provide such a comparison by three key macroeconomic indicators: GDP growth, unemployment rates and fiscal balance.

In terms of GDP growth (Chart 1), the dynamics of Bulgaria's performance was not much different from the NMS-10 average. Bulgaria's economy grew slightly faster than the NMS-10 during the boom years and *vice versa* during the crisis. Overall, a catch-up process relative to the 'old' EU was under way in the NMS-10 (including Bulgaria) during most of the last decade.

Chart 1

Bulgaria's macroeconomic performance compared to the EU, 2001-2011: GDP growth

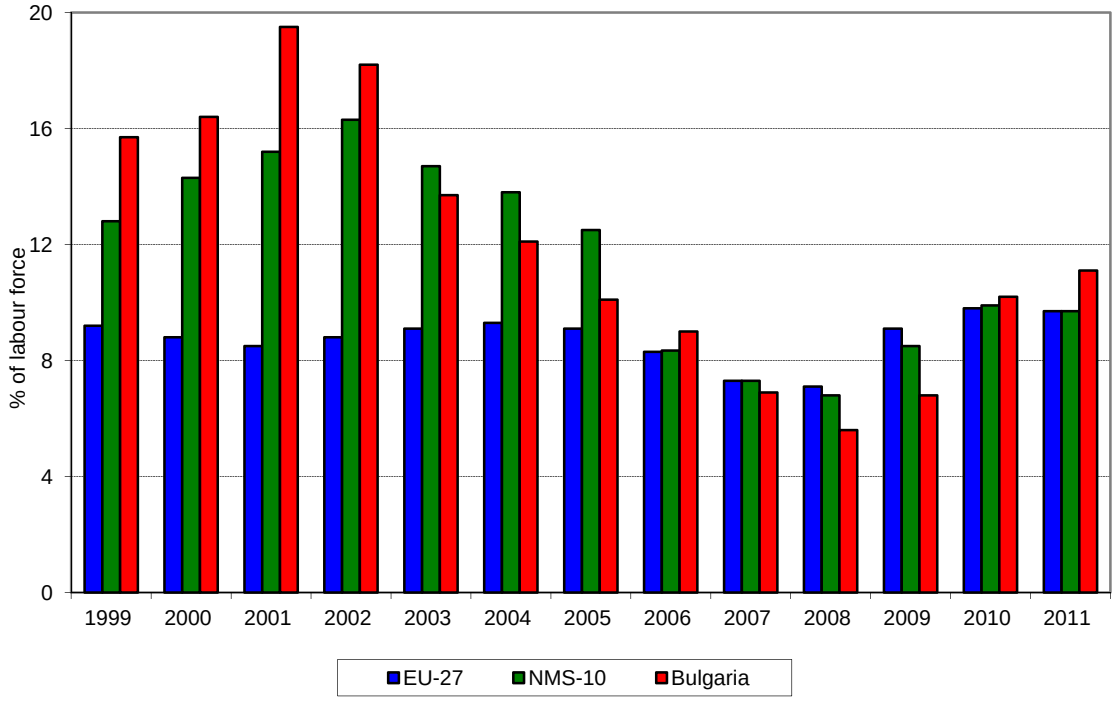


Source: Eurostat; wiiw Database.

In terms of the rates of unemployment (Chart 2), Bulgaria was again not much different from the NMS-10 average. It displayed slightly higher rates of unemployment than the NMS-10 average in the initial boom years, then slightly lower rates than the NMS-10 average in the late boom years, and then again slightly higher rates than the NMS-10 during the crisis. The comparative dynamics of unemployment rates suggests that the output elasticity of employment in Bulgaria was relatively higher than in most EU countries or, more generally, that the labour market in Bulgaria displayed higher degrees of flexibility than those of most EU countries including the NMS-10.

Chart 2

Bulgaria's macroeconomic performance compared to the EU, 2001-2011: unemployment rates

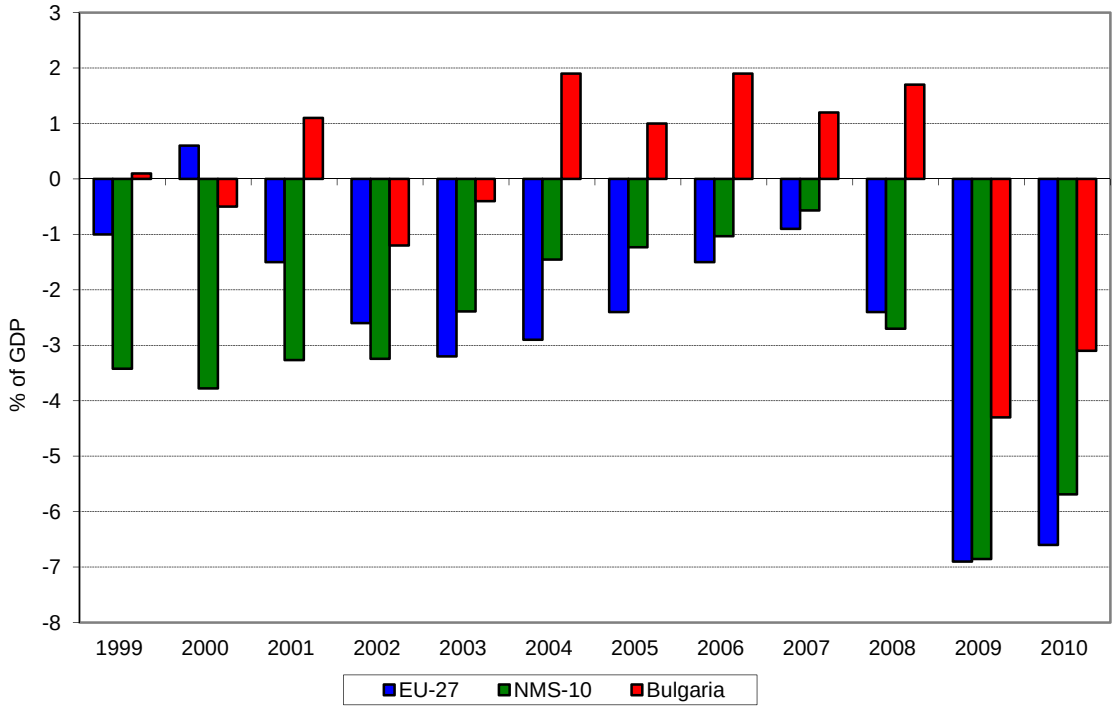


Source: Eurostat; wiiw Database.

By contrast, in terms of the general government fiscal balance (Chart 3), Bulgaria was very different both from the EU-27 average and from the NMS-10 average during the whole decade. The chart reflecting comparative fiscal performance presents clear evidence that Bulgaria maintained a very conservative fiscal stance throughout the whole decade. Its consolidated government fiscal deficit was lower than the EU-27 average and the NMS-10 average in virtually all years in this period except the year 2000 when Bulgaria fared worse than NMS-10 average. Moreover, during the late boom years Bulgaria reported surpluses in the consolidated general government balance in 5 consecutive years (from 2004 to 2008). During these years, Bulgaria accumulated a significant fiscal reserve which was then partly used to finance subsequent deficits.

Chart 3

Bulgaria's macroeconomic performance compared to the EU, 2001-2011: consolidated general government fiscal balance



Source: Eurostat; wiiw Database.

Notably, such a fiscal stance (which may appear as excessively tight) resulted from the consistent adherence to a medium-term fiscal framework anchored on the structural fiscal balance which in itself was part of the currency board arrangement in place since 1997. Actually, as I show later, Bulgaria's fiscal stance in this period was not excessively tight (it was just about moderate); it was the fiscal stance in other EU member states that was probably excessively lax during the boom years.

Nevertheless, a number of macroeconomic imbalances were accumulating in the Bulgarian economy during the decade of the 2000s and especially in the years leading to the crisis. There are no universally accepted definitions of imbalances and therefore each attempt to measure them faces definitional challenges. As I am also interested in presenting Bulgaria's macroeconomic imbalances in an internationally comparative perspective, I illustrate these imbalances using the recently introduced 'Alert Mechanism' of the EC (European Commission, 2012a, 2012b).

The Alert Mechanism is part of a new surveillance procedure for the prevention and correction of macroeconomic imbalances as part of the framework for economic governance in the EU. It is designed as an initial screening device for identifying existing macroeconomic imbalances or where there is a risk to them to emerge. In cases where the

Alert Mechanism signals imbalances or risks, it calls for follow-up studies to analyse in more detail the driving forces behind the observed developments and the risks associated with them. Hence the Alert Mechanism is basically a surveillance procedure for the prevention and correction of macroeconomic imbalances (the so called Macroeconomic Imbalance Procedure)

The core part of the Alert Mechanisms is a scoreboard containing 10 main scoreboard indicators with indicative thresholds, most of which are taken as the averages for the previous 3 years. Among them, there are 5 scoreboard indicators measuring external imbalances and competitiveness and 5 indicators measuring internal imbalances.[1] In addition to the main ones, there are 18 additional indicators that are used for a more precise economic interpretation of the imbalances.

The mechanism performs as follows. For each of the main scoreboard indicators, the procedure establishes thresholds (these can be 'ceilings' or 'floors' or both). Annual values of the scoreboard indicators are computed for each participating country (in this case, most EU member states) for a certain pre-defined period (in this case, 2001-2010). An 'alert' is signalled (for a given country, for a given indicator, for a given year) if the respective value of the indicator for this country surpasses the threshold(s) in this year.

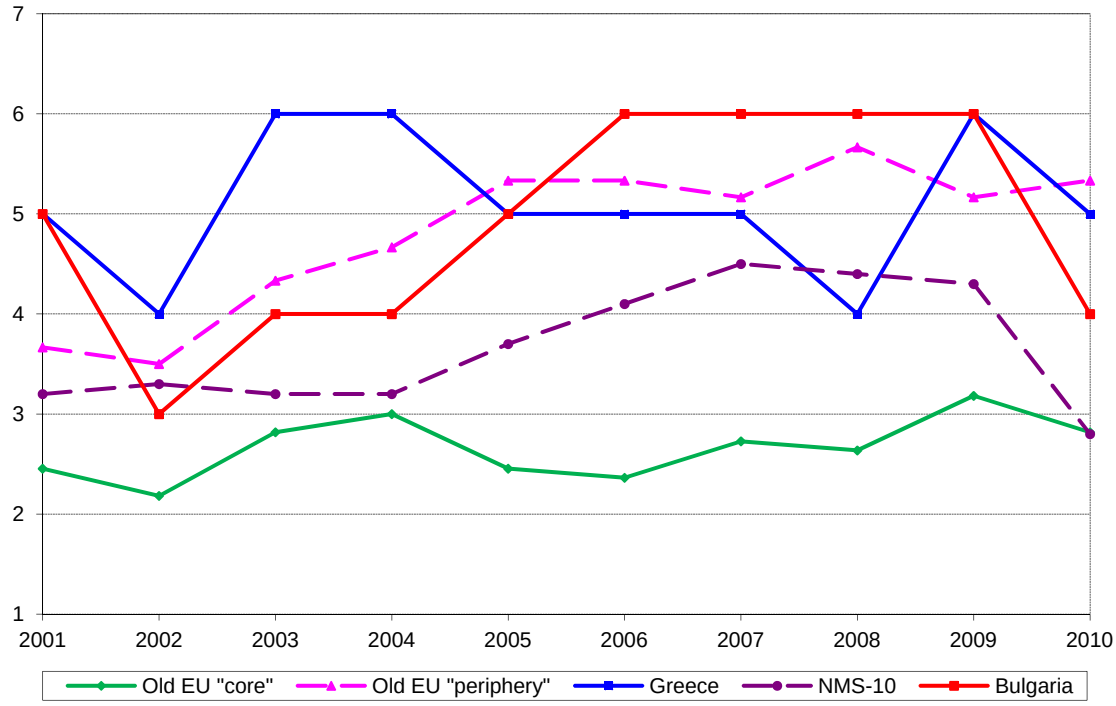
Obviously, it is not the purpose of this paper to go into an in-depth assessment of countries' performance by each and every scoreboard indicator. For illustrative purposes, I use a very simplified technique, namely, taking the numbers of alerts signalled for each country during each of the years for which the alert mechanism was applied. For the comparison of Bulgaria's performance vis-à-vis that of other EU member states, I compute the simple averages of the number of alerts in each year for selected groups of countries. Admittedly, this is a simplistic picture based on a superficial reading of the surveillance results: it only counts the cases when the respective indicator in the respective country exceeds the respective threshold and does not follow in more depth as to the factors that determine such incidences. Nevertheless, it does have relevant information content as 'alerts' are designed to issue warning signals to policy makers of existing or imminent risks to macroeconomic performance.

Chart 4 presents a comparison of Bulgaria's performance against that of groups of EU states by the average number of alerts recorded in the period 2000-2010.

[1] The full set of scoreboard indicators include: A) External: current account balance (% of GDP); net international investment position (% of GDP); % change of real effective exchange rate (with HIPC deflators); % change in export market shares : % change in nominal ULC; B) Internal: % change in real house prices; private sector credit flow (% of GDP); private sector debt (% of GDP); public sector debt (% of GDP); unemployment rate.

Chart 4

EU's alert mechanism: average number of 'alerts' in selected EU member states, 2001-2010



Source: European Commission (2012b).

One can note that judging by the number of 'alerts' the NMS-10 are not much different from the EU average and slightly worse than the 'old' EU. By contrast, within the old EU, there is considerable difference between 'core' and 'periphery'[2], whereby the incidence of 'alerts' is much more frequent in the 'periphery' whereas the 'core' is less affected by 'alerts'. By this token, the 'periphery' of the old EU on average actually fares worse than the NMS-10.

Turning to Bulgaria's performance (a NMS and an emerging economy), judging by the number of 'alerts' it fared very poorly, especially in the second half of the decade. In fact, by this measure Bulgaria was among the worst performers both within the NMS-10 and within the EU as a whole. Comparing the number of 'alerts' in the second half of the last decade Bulgaria performed worse than the 'Old EU periphery' and also worse than Greece, the most troubled country in this group.

Overall, such a picture, albeit simplified, tends to send strong warning signals regarding the possible risks of a macroeconomic crisis in Bulgaria. However, the period after 2010 (which is the last year covered by 'alerts' data available up till now) has not provided any evidence

[2] For these illustrative purposes, 'periphery' is used in the geographic sense. Thus in Chart 4, the 'Old EU periphery' comprises Cyprus, Greece, Ireland, Malta, Portugal and Spain; the remaining 11 countries are included in the 'Old EU core'.

of serious macroeconomic disturbances in Bulgaria, unlike what happened in a number of countries with smaller numbers of 'alerts' or even in countries such as Italy where the number of 'alerts' in the second half of the 2000-2010 period were among the lowest in the EU.

Of course, as earlier stated, one needs a deeper analytical insight to identify and analyse the genuine sources and causes of macroeconomic risk and the potential of these risks to translate into a crisis. In fact, in a subsequent in-depth review of Bulgaria's macroeconomic performance (in accordance with the procedure of the Alert Mechanism), the European Commission (2012c) toned down its assessment of macroeconomic risks in Bulgaria. Nevertheless, it stressed that '… the in-depth review concludes that Bulgaria is experiencing macroeconomic imbalances, which are not excessive but need to be addressed'.

This said, even this subsequent assessment by the European Commission (2012c) does not go deep enough to reveal some very specific aspects of the macroeconomic situation in Bulgaria and the key factors that have helped it safeguard macroeconomic stability so far.

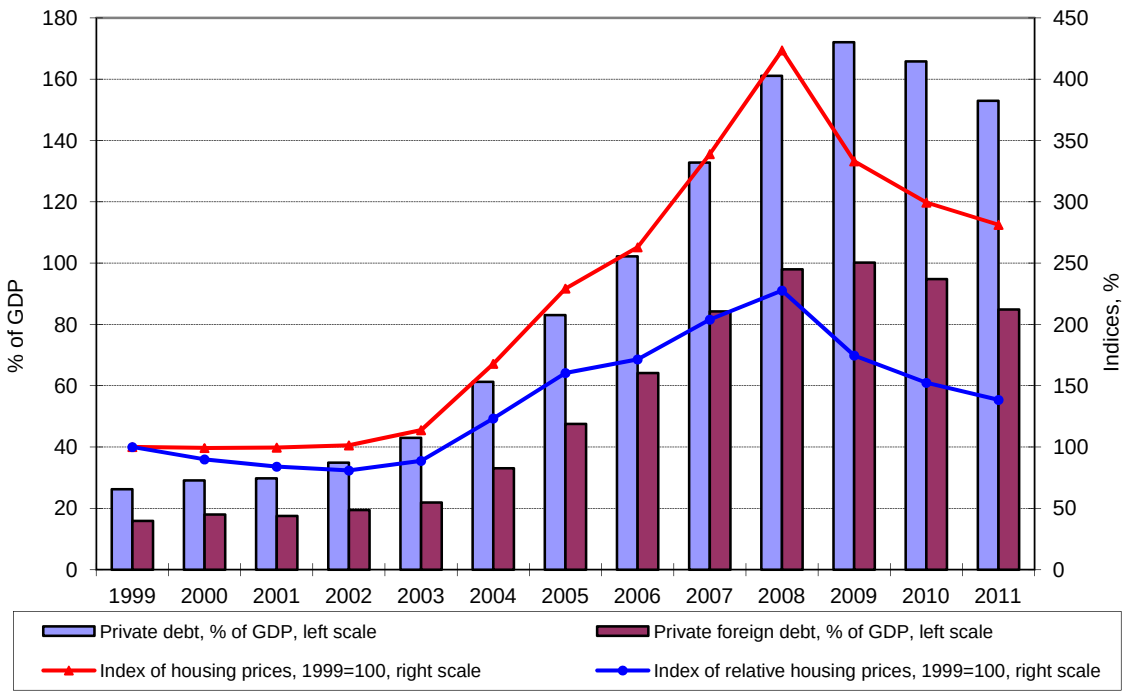
The building and unwinding of imbalances

For almost a decade, up to 2009, economic growth in Bulgaria was mostly driven by a persistent surge in domestic demand. The latter reflected improving investor and consumer confidence which was fuelled by a concomitant credit expansion and a surge in FDI inflows, especially after 2003. The funding sources of the credit boom combined foreign borrowing by local banks as well as direct borrowing by local companies abroad. Thus, similarly to what happened in other countries, the expansion of domestic demand was largely financed by capital inflows attracted by expected high returns on the local market.

There were a number of factors that contributed to this pattern of domestically-driven growth. Not least, it was the prospects of EU membership that boosted significantly investor confidence and the attractiveness of Bulgaria as a destination for FDI. But the key driving force of the boom in domestic demand was the real estate market. The boom years in Bulgaria were, as in many other economies in that period, associated with the building of a real estate bubble as evidenced by the soaring housing prices associated with the accumulation of private debt (Chart 5). Between 2003 and 2008 nominal housing prices quadrupled and more than doubled relative to consumer prices. As the soaring private domestic demand was fuelled by borrowing and capital inflows, it was inevitably associated with the build-up of large private debt which also quadrupled in proportion to GDP between 2003 and 2008.

Chart 5

Housing prices and private sector indebtedness in Bulgaria, 1999-2011



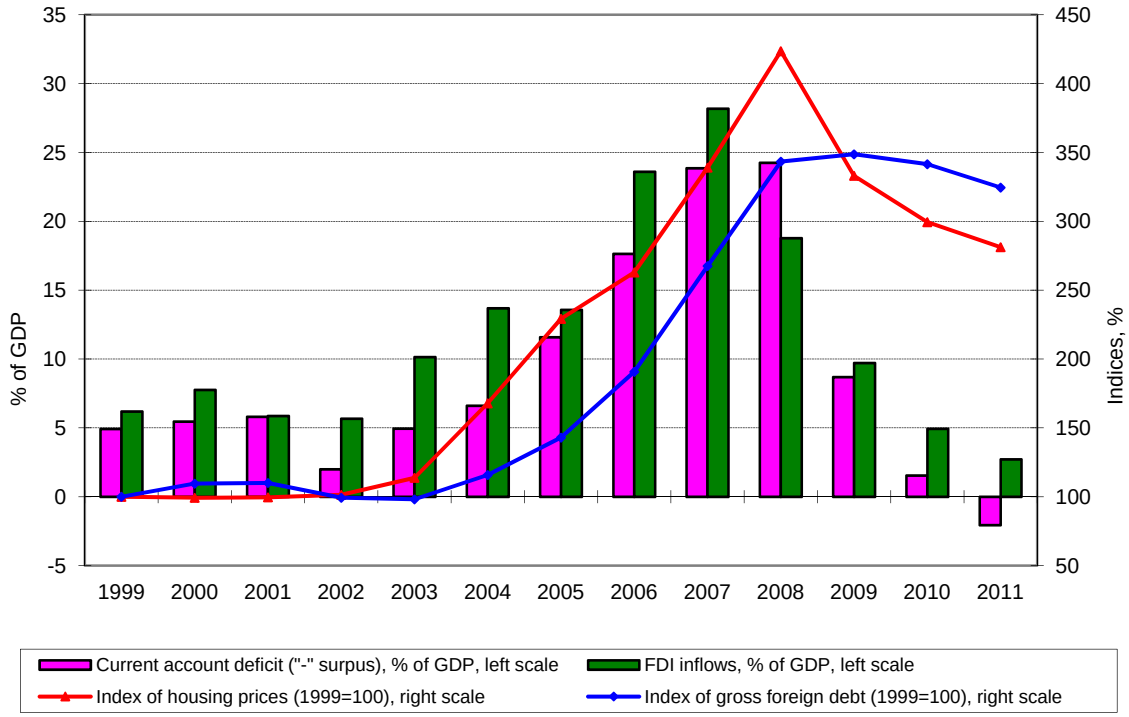
Source: Bulgarian National Bank; National Statistical Institute; author's calculations.

Related to that, the boom in domestic demand (largely associated with the bubble) had a major impact on Bulgaria's external balances. Thus it also sparked an import boom and caused a significant widening of the trade and current account deficits (Table 1 and Chart 7). During the bubble years (2003-2008) Bulgaria attracted exceptionally high levels of FDI (Chart 6) which was fuelling growth, mostly in construction and real estate; some FDI was also directed towards manufacturing. Local banks were borrowing abroad (as most Bulgarian commercial banks are foreign owned, most of this borrowing was from the parent structures) to be able to respond to the growing demand by credit-hungry investors. These developments were associated extraordinarily high levels of the current account deficit which spiked above 20% of GDP in 2007 and 2008 and the build-up of large foreign debt (Charts 6 and 7). The growing indebtedness was mostly concentrated in the private sector; thus private foreign debt alone reached the level of GDP in 2009.

The housing prices bubble, the large inflows of capital, both financial and FDI (also mirrored in the persistently high current account deficit) and the build-up of private foreign debt reflected the different facets of one and the same phenomenon: investors expecting high returns and willing to take the associated risks were heavily borrowing abroad (some of the borrowing was channelled through the banking system; some was direct) and investing in real estate. Creditors were willing to finance this expansion guided by the improving macroeconomic fundamentals and perceived good prospects of the economy.

Chart 6

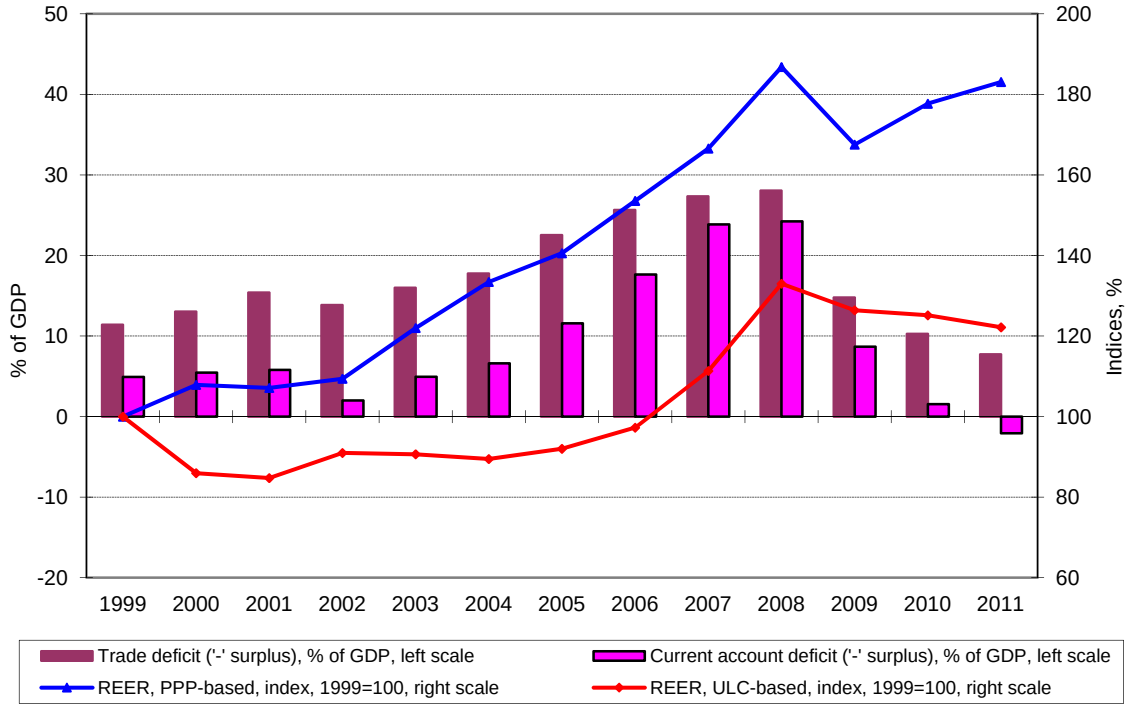
The housing price bubble and some of its macroeconomic effects, 1999-2011



Source: Bulgarian National Bank; National Statistical Institute; author's calculations.

Chart 7

Bulgaria's real effective exchange rate and external balances, 1999-2011



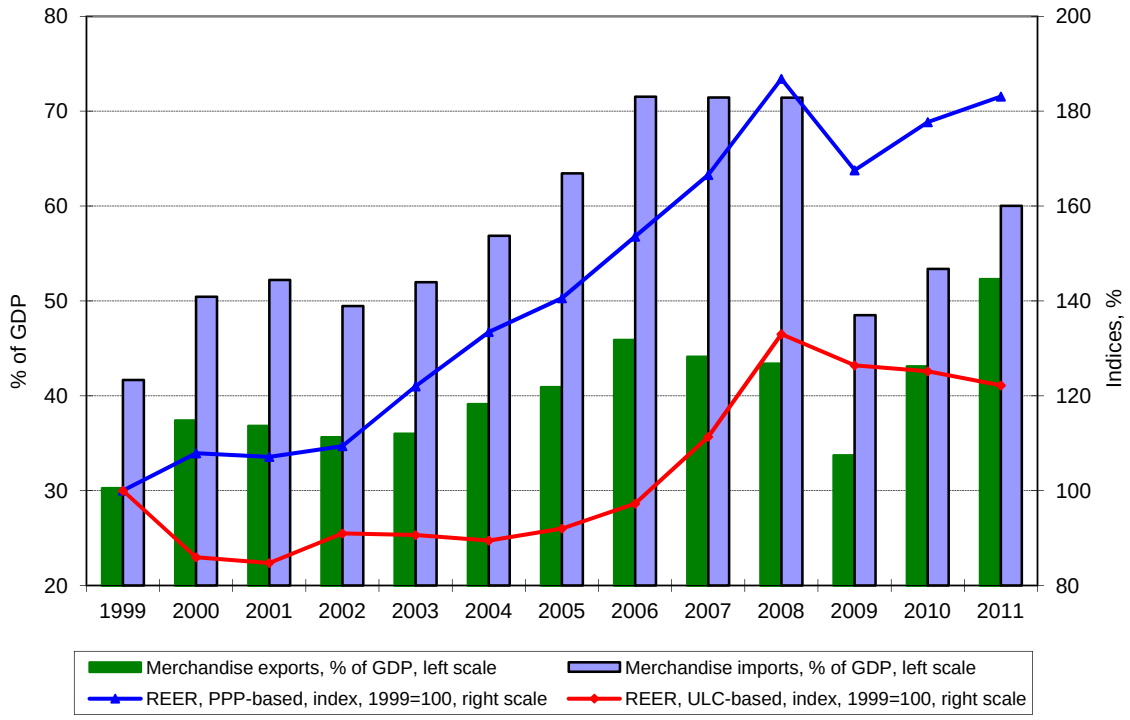
Source: Bulgarian National Bank; National Statistical Institute; author's calculations.

The massive capital inflow was associated – not surprisingly – with considerable appreciation of the real effective exchange rate (REER). This was especially pronounced in price-based measures and not so much in ULC-based measures (Chart 8).

Notwithstanding the large external imbalances, it is difficult to claim that the REER appreciation was associated with a lasting loss in competitiveness. Thus despite the elevation of the REER levels in the lead-up to the crisis, Bulgarian exports surged in 2010-2011 and in 2011 even surpassed the pre-crisis levels (Chart 8).

Chart 8

Bulgaria's real effective exchange rate and trade performance, 1999-2011



Source: Bulgarian National Bank; National Statistical Institute; author's calculations.

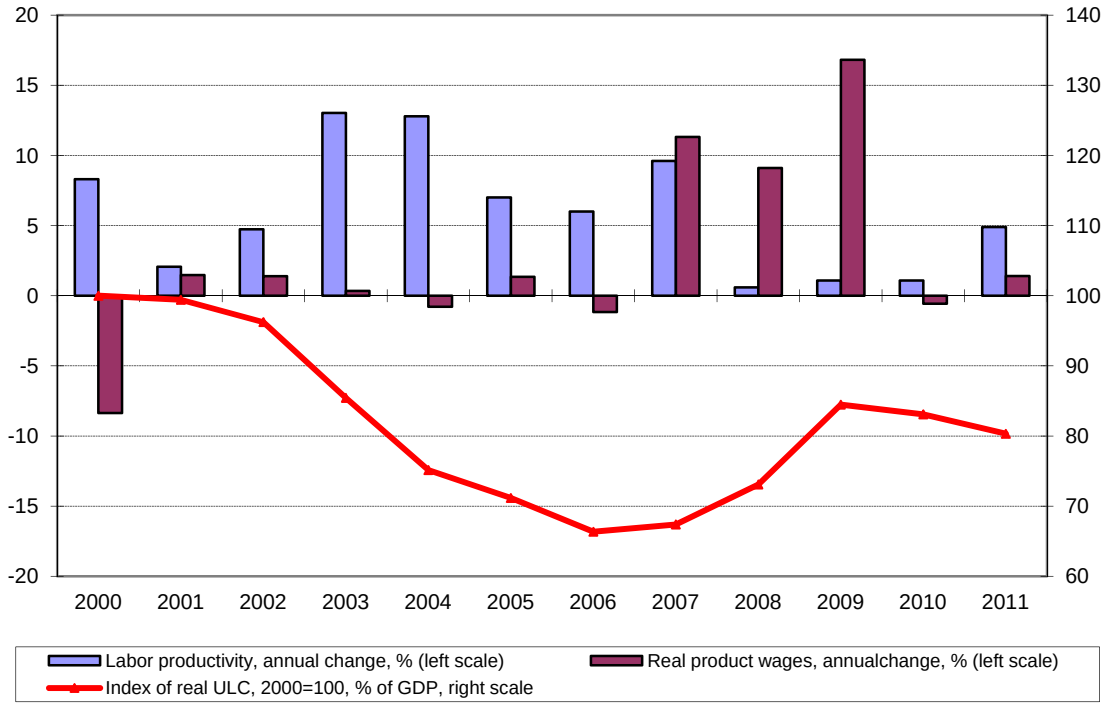
Therefore, what happened in Bulgaria before and during the crisis is more consistent with the interpretation of Gros (2012) who maintains that competitiveness is endogenous (reflecting in the first place the working of the labour market) whereas widening external imbalances are in the first place driven by unsustainable domestic demand. From this perspective the observed trend REER appreciation is consistent with an on-going a catch-up process (the Balassa-Samuelson effect) and was not unequivocally associated with the persistent capital inflows.

A more in-depth look into some of the determinants of competitiveness (Chart 9) reveals a more multifaceted picture. In the years immediately preceding the crisis (2008-2009) there was actually a serious deterioration in competitiveness as measures by real unit labour

costs. The initial push for this was a loosening of incomes policy in the public sector in 2007 which then spilled over through the economy leading to an economy-wide wage surge from 2007 to 2009. It coincided with the weakening in labour productivity starting in 2008 and PPI deflation in 2009.

Chart 9

Competitiveness measures of Bulgarian industry, 2000-2011



Source: National Statistical Institute; author's calculations.

However, starting in 2009, real ULC started to decline again (implying improvement in competitiveness), reflecting downward adjustment in labour input (Table 1) and rise in labour productivity coupled with wage restraint. This episode illustrates the importance of labour market adjustment as a factor of macroeconomic stability under the currency board arrangement. Thanks to sufficient labour market flexibility, the needed adjustment was accomplished relatively swiftly, allowing to restore competitiveness which, in turn, contributed to a reversal in the external balances.

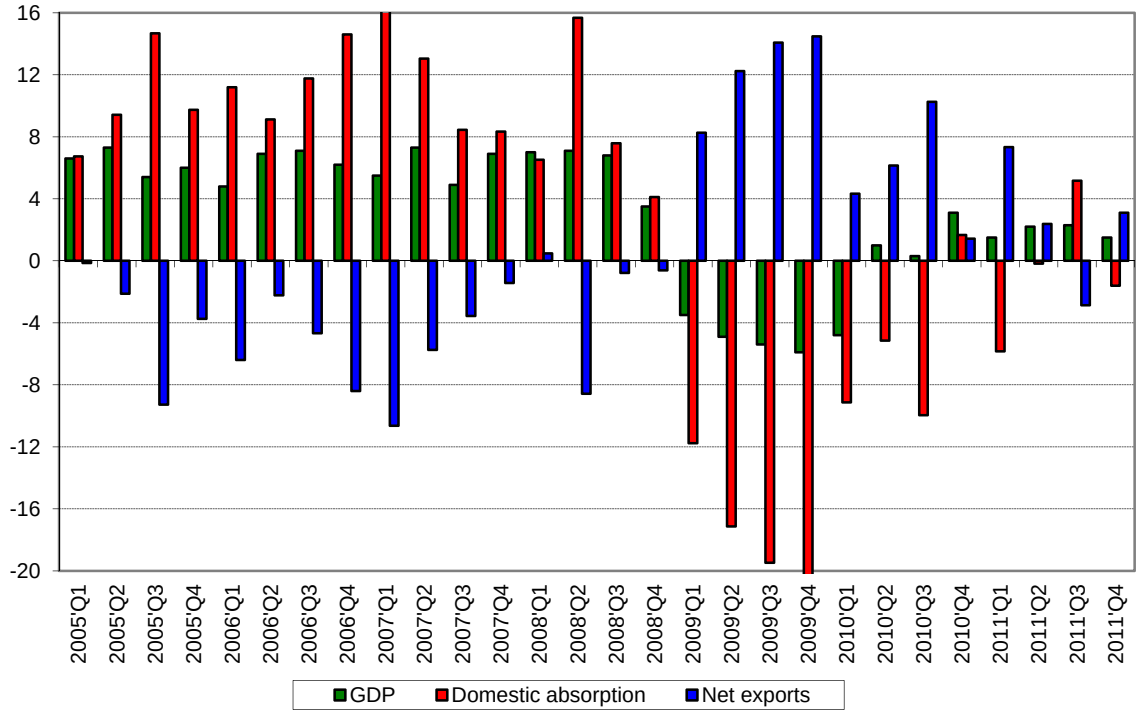
With the start of the global economic and financial crisis in 2009 and its further escalation, the driving forces of demand-driven growth dried up and the 'bubble burst'. What happened afterwards was a typical 'abrupt stop' of capital inflows followed by a reversal albeit of a relatively small magnitude. Respectively, the crisis triggered a drastic macroeconomic adjustment away from the previous pattern of growth which had been led by domestic demand.

The major adjustment can be traced in all aspects of economic performance. Real estate prices rapidly retreated, epitomizing the 'bursting bubble' (Chart 5). Capital flows changed direction resulting in negative outflows in 2010 and 2011; FDI also plunged. Imports dropped dramatically and although exports were also severely hit by the crisis, the external balances improved significantly (the current account balance was even in surplus in 2011. Mirroring these developments, private debt, including private foreign debt started to decline. There was a concomitant correction in the dynamics of the REER, especially that deflated by ULC.

Overall, this amounted to a complete reversal in the pattern of macroeconomic performance. In terms of growth drivers, there was a lasting switch away from demand-driven growth during the boom years towards export-led economic performance (Chart 10).

Chart 10

Contributions to Bulgaria's quarterly GDP growth, per cent, 2005-2011



Source: National Statistical Institute; author's calculations.

This switch, however, did not provide impetus to economic growth; in fact it subtracted from it. Notably, growth was the main casualty of the crisis: the years since the start of the crisis have been marked by economic decline or stagnation plus rising unemployment in the latest period.

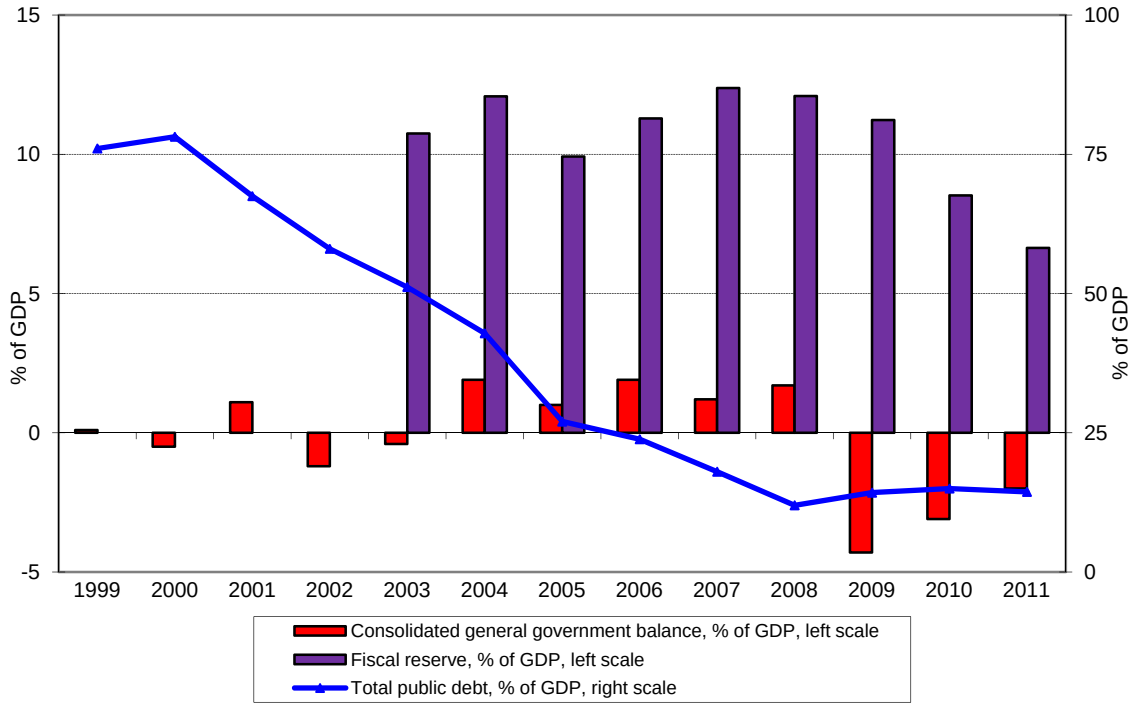
In any case, despite these negative developments and the accumulation of considerable imbalances in the lead-up to the crisis, Bulgaria – unlike a number of economies in Europe – so far did not experience macroeconomic destabilization. An important piece of evidence

in support of this statement is the dynamics of interest rates throughout the crisis (Table 1). In fact interest rates (which, as argued in the previous section, are among the 'self-stabilizers' of the currency board arrangement) reacted only marginally to the abrupt stop in capital flows. This implies that, on the one hand, there was no turbulence in domestic financial markets and, on the other hand, that the overall economic effect of the change in the direction of capital flows was insignificant.

We now turn towards the factors that prevented macroeconomic destabilization by analysing the process of unwinding of the accumulated imbalances.

Chart 11

Bulgaria's fiscal position, 1999-2011



Source: Ministry of Finance; author's calculations.

Probably the key stabilizing factor in this period has been the solid fiscal position of the country (Chart 11). It combined two elements: an institutional arrangement embodied in the fiscal reserve (which was established as part of the currency board arrangement[3]) and a persistent conservative fiscal policy stance anchored on a medium-term fiscal framework (also instituted in the context of the currency board arrangement). As already noted, Bulgaria was among the very few EU countries (along with Denmark, Estonia and Ireland) that maintained surpluses in their consolidated general government balances during the

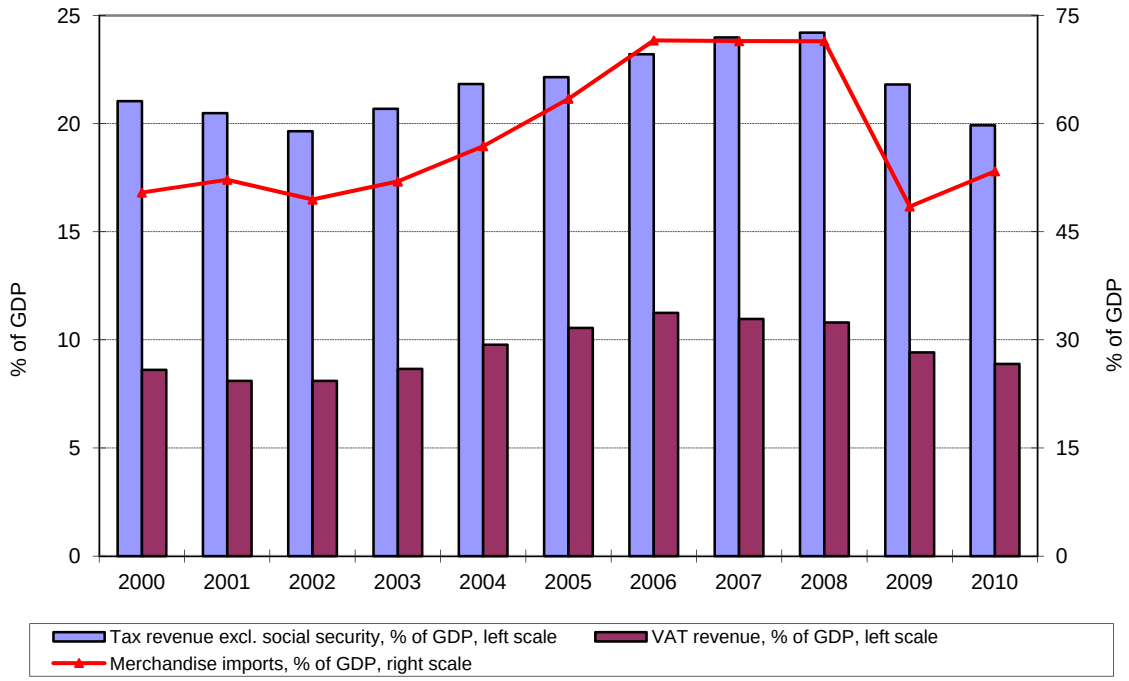
[3] The fiscal reserve represents the balance of all funds available to all arms of the general government at any given time, both in local and in foreign currencies. Under the IMF-supported programme that led to the establishment of the currency board, Bulgaria pledged to maintain indefinitely a minimum balance in foreign currency in this account (held with the Bulgarian National Bank) as a stabilizer of the currency board.

boom period preceding the crisis. These surpluses were mostly used to beef up the fiscal reserve, which at its peak in 2007-2008 reached levels above 12% of GDP.[4]

Solid fiscal performance and growth during much of the past decade also made it possible to reduce drastically the level of public debt in proportion to GDP: from close to 80% in 2000 to little more than 10% in 2008. The extraordinary low level of public debt (it only increased marginally during the crisis) in Bulgaria was another key factors safeguarding macroeconomic stability in times of external turbulence.

Chart 12

Imports and tax revenue in Bulgaria, 2000-2010



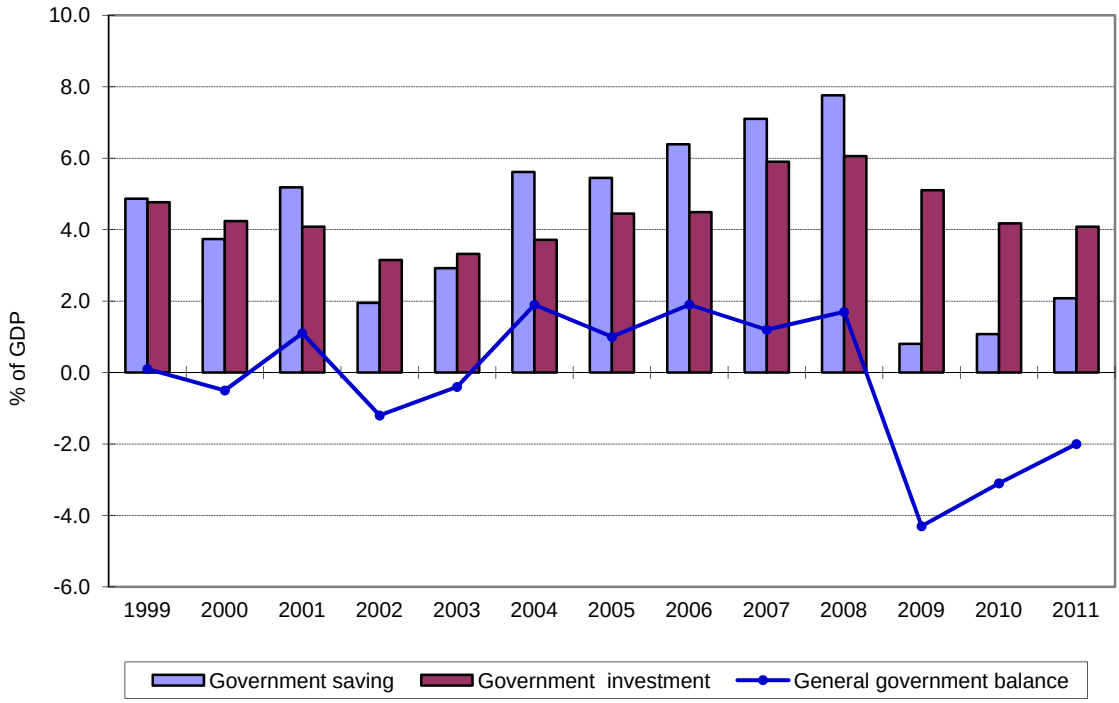
Source: National Statistical Institute; Ministry of Finance; author's calculations.

When analysing Bulgaria's fiscal position during the boom years, it is worth looking more closely to the sources of the fiscal surpluses. Obviously, they partly reflect typical cyclical effects related to above-trend economic growth in this period. However, this is likely only part of the explanation. In fact another major source of public revenue was above-trend VAT receipts due to the unusually strong import expansion in this period: from an average of around 50% of GDP in the period 2000-2003 merchandise imports jumped to an average of above 70% of GDP in the years 2006-2008 (Chart 12). And as can be seen on the chart, there is a strong correlation between import activity and VAT revenues. In fact, a large portion of the fiscal surpluses recorded in this period can be associated with the import boom in this period – and the growing indebtedness that accompanied this expansion.

[4] The uneven dynamics of the level of fiscal reserve on Chart 11 reflects the fact that during the boom years both the reserve itself and some of the budgetary surpluses were used to retire public debt; by contrast, during the crisis, part of the deficits incurred were financed by drawing funds from the reserve.

Chart 13

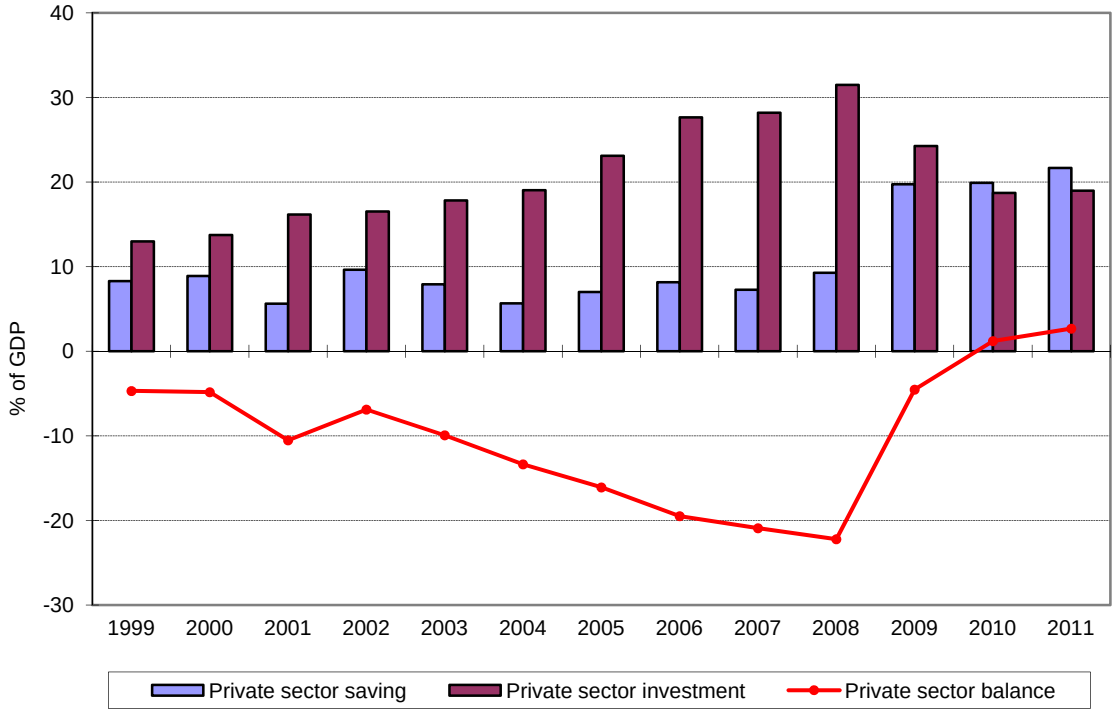
Bulgaria's saving-investment balance: government sector, 1999-2011



Source: National Statistical Institute; Ministry of Finance; author's calculations.

Chart 14

Bulgaria's saving-investment balance: private sector, 1999-2011



Source: National Statistical Institute; Ministry of Finance; author's calculations.

Therefore, the level of tax revenue in this period (respectively, the fiscal balance) was likely pushed up even higher thanks to abnormally high VAT revenue related to levels of imports. In other words, excessive VAT-associated public revenue generated a peculiar type of 'windfall' cyclical surplus (over and above the 'normal' cyclical fluctuation) associated with the unusual import boom. This message apparently was read correctly by the Bulgarian fiscal authorities and they wisely put aside this surplus into the fiscal reserve rather than spend it, the latter risking to lock the economy into a structural deficit position. This was the correct course of action as the import boom – and the associated 'windfall' revenue – was clearly unsustainable. One could safely infer that the situation experienced by Bulgaria was not unique within the EU. However, very few countries adhered to a similar fiscal policy stance.

Once the crisis hit, there was a reversal in Bulgaria's fiscal balance as well (Chart 11). The deficits, largely cyclical in nature, have been to some degree financed from the fiscal reserve accumulated during the boom years. Due to that, there was only a marginal increase in the level of public debt in proportion to GDP during the crisis. Basically public debt can be considered as a non-issue in Bulgaria at present.

The reversal in the fiscal balance mirrored a process of rebalancing between the public and private sectors, in particular, in their aggregate saving-investment balances that accompanied the gradual unwinding of accumulated imbalances (Charts 13 and 14). These pictures also reflect how the overall burden of the crisis was shared by the government and the private sector.

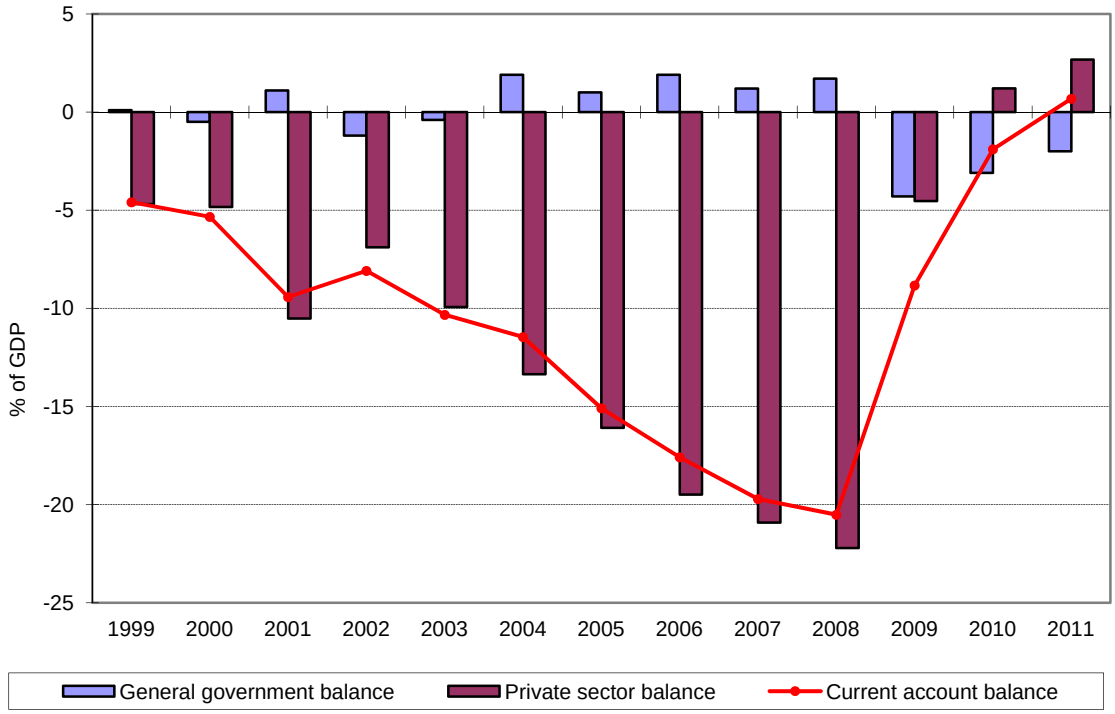
Thus while the government was a net saver during most of the past decade, it switched to dis-saving during the crisis to offset the process of deleveraging by the private sector which was triggered by the crisis. By contrast, the private sector was dis-saving during most of the past decade and as a result accumulated considerable debt. It then switched to saving during the crisis (and becoming a net saver in 2010-2011) in a process of deleveraging.

In relative terms, the changes were much more dramatic in the private sector, where a saving-investment deficit amounting to more than 20% of GDP turned into a surplus within a period of two years, between 2008 and 2010 (Chart 15).

While well pronounced, the process of re-balancing between the public and private sectors did not have destabilizing macroeconomic effects either, mostly thanks to the fiscal cushion in the hand of the government. There were, however, casualties of the process of re-balancing and the main victim was fixed investment: both the government and the private sector severely reduced investment during the crisis. In this process, the re-balancing by the government was not sufficient to offset the drastic deleveraging by the private sector and the result was a growth sacrifice during the crisis.

Chart 15

Bulgaria's current account balance by key institutional sectors, 1999-2011



Source: Bulgarian National Bank; National Statistical Institute; Ministry of Finance; author's calculations

One could argue that during the crisis, the Bulgarian authorities did not explore all fiscal policy options to counterbalance to a higher degree the negative effects of the crisis. In retrospective, in terms of downsizing (both in absolute and in relative terms) the single most affected item of public expenditure was public investment. This alone subtracted directly from economic growth in this period. Without any doubt, there could have been alternative options – involving some internal restructuring of public spending – which could have been more conducive to growth, even within the same overall range of the general government fiscal balance (see also Gligorov and Landesmann, 2011a, 2011b).

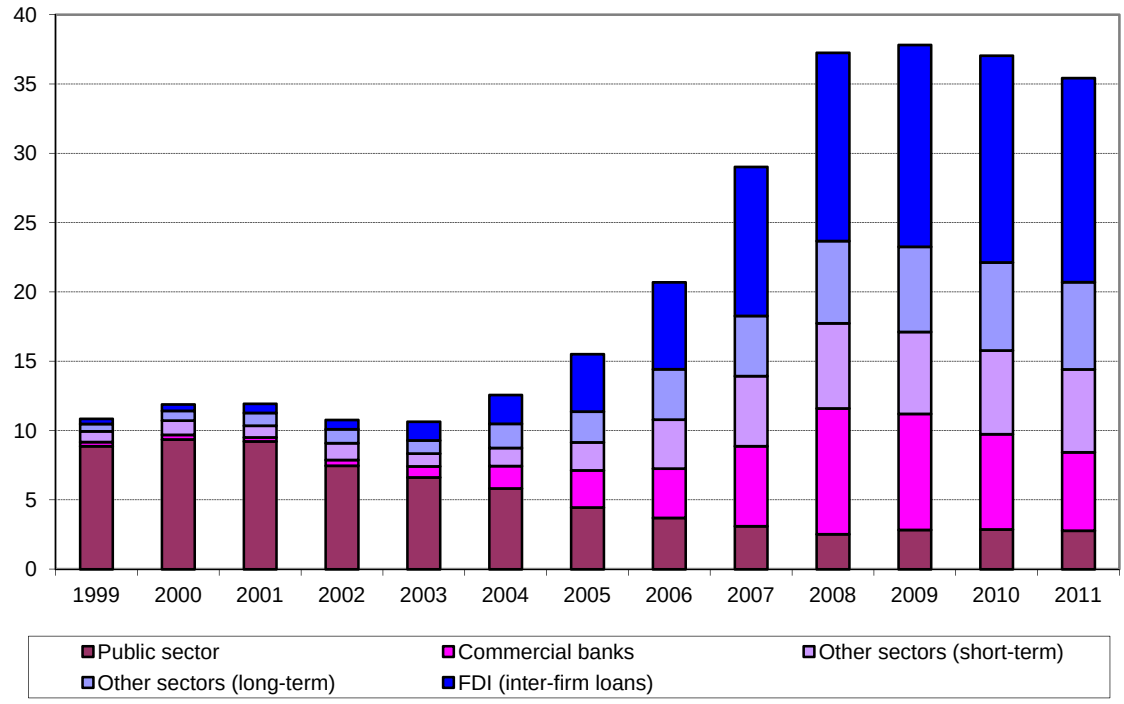
During the boom years Bulgaria rapidly accumulated foreign debt which was very large by any token (gross foreign debt reached 108% of GDP in 2008 – Table 1) and thus a source of macroeconomic risk. Moreover, the overwhelming share of this debt was private and thus subject to increased volatility. Possible massive capital outflows (in a range consistent with the level of debt) thus could endanger the stability – and even the existence – of the currency board arrangement.

However, these risks so far have not materialized. Capital outflows were a fact during the crisis – mirroring the ongoing process of deleveraging – but only in proportions that did not pose threats to macroeconomic stability. So why was the pace of deleveraging not as high as it could have been expected given the level of measured imbalances?

To find clues to such questions one needs to take a closer look at the breakdown of Bulgaria's gross foreign debt by institutional sectors (Chart 16). The chart illustrates the very specific – and rather peculiar – structure of Bulgaria's foreign debt which is dominated by significant shares accounted for by inter-firm loans and long-term external debt by local firms while public sector foreign debt is small and diminishing.

Chart 16

Breakdown of Bulgaria's gross foreign debt by institutional sectors, EUR billion, 1999-2011



Source: Bulgarian National Bank; author's calculations.

Within the private sector, the largest share of foreign debt is accounted for by 'inter-firm loans' (loans that foreign firms lend to their Bulgarian subsidiaries). This sort of debt is very similar to equity financing and is almost equivalent to FDI. It is characterized by relatively low volatility as evidenced by the fact that since the start of the crisis there has been almost no outflow of such funds.

Another major component is direct long-term borrowing abroad by companies based in Bulgaria (most of the first that had a profile allowing them to borrow internationally are foreign-owned). In the last couple of years there has been almost no outflow of such funds either.

Therefore, one can trace a process of deleveraging mostly in the declining foreign debt of local commercial banks; i.e. in funds that were borrowed abroad and then channelled to

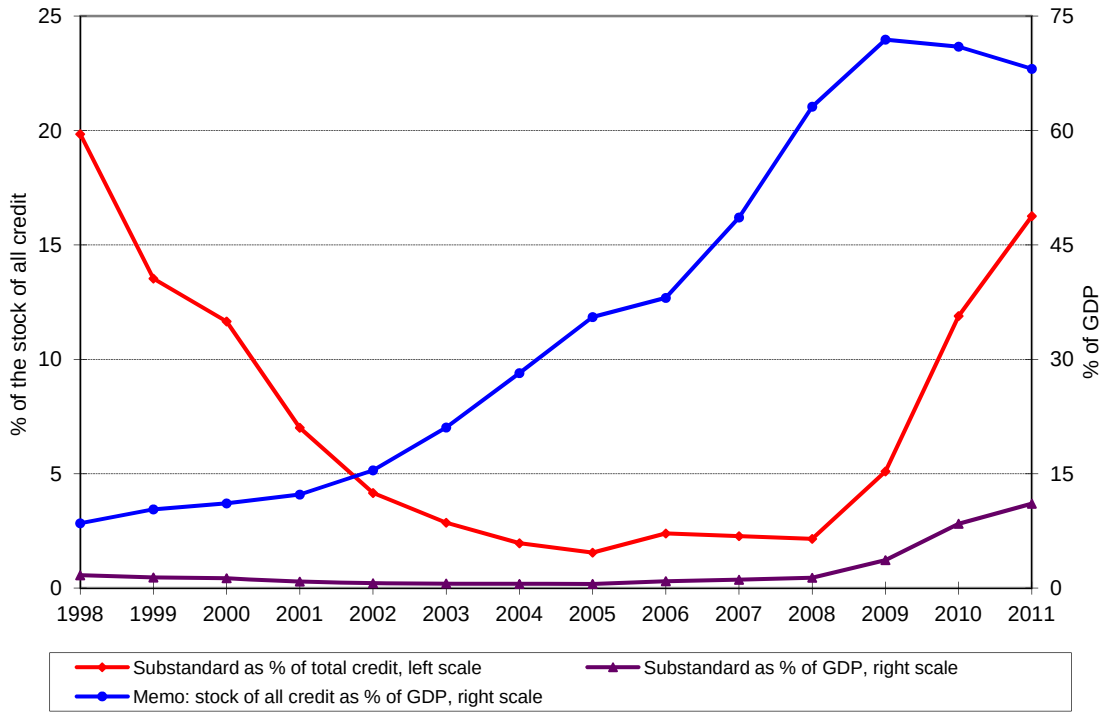
local borrowers through the banking system. But even in this segment of the market the outflow is not in proportions that could endanger macroeconomic stability.

The general conclusion from this insight is that when assessing the risks stemming from foreign indebtedness it is not sufficient to consider the overall level of debt; one needs to analyse the structure of the debt and the risks associated with each of its components.

On the other hand, the unwinding of imbalances in a period of crisis has not been smooth as evidenced by the deterioration in the commercial banks' portfolios (Chart 17). The share of substandard loans has grown rapidly since the start of the crisis reflecting both the deterioration in the economic environment in the country and the reluctance of banks to re-finance or roll over problematic debt.

Chart 17

Substandard loans in the Bulgarian economy, 1998-2011



Source: Bulgarian National Bank; author's calculations

Bad loans are still relatively low in proportion to GDP and the banking system as a whole is generally perceived as stable, in particular, thanks to its strong capital base. Nevertheless, the quality of banks' portfolios has been another casualty of the crisis and is a process to be watched in the foreseeable future.

Policy lessons and conclusions

This paper seeks to analyse Bulgaria's economic performance before and during the crisis, in particular, the dynamics of macroeconomic imbalances and the risks associated with them.

The rapid expansion of domestic demand during most of the past decade fuelled by capital inflows and a credit boom was indeed associated with the accumulation of imbalances of considerable magnitude. In terms of housing price hikes, the bubble in Bulgaria was commensurate to that experienced by other South European countries. Years of unsustainable current account deficits led to the skyrocketing of private foreign debt. Being an emerging economy, Bulgaria was also prone to contagion, implying high volatility in capital flows during the crisis. So there was an abrupt stop in capital flows followed by a reversal in the years that followed.

Standard measures of macroeconomic imbalances (such as the EC's 'alert mechanism') indicated elevated macroeconomic risk. Judging by the sheer numbers of such alerts, by 2011 Bulgaria was among the most endangered countries in the EU.

Despite all these warning signals, at this point in time one could claim that the Bulgarian economy has weathered the crisis relatively successfully and with limited damage. Given the fact that other EU countries – even economies that were subject to fewer alerts – experienced much more severe macroeconomic problems, the paper seeks to identify the factors that prevented a crisis in Bulgaria.

The analysis in the paper is focused on Bulgaria and its conclusions reflect the specific macroeconomic conditions and policies in this period. However, such an assessment may have broader relevance and significance for eurozone countries as in terms of its macroeconomic framework (absence of independent monetary policy due to the currency board arrangement), Bulgaria was probably resembling a eurozone economy.

The paper identifies several key factors that, through their simultaneous effect, contributed to upholding macroeconomic stability in Bulgaria.

The first among these factors was the consistently prudent fiscal policy stance over a period of some 15 years (since the establishment of the currency board in 1997). Despite the fact that several governments changed during this period, none of them deviated from this policy course or attempted to challenge the underlying principles of the fiscal policy stance set up within the currency board arrangement. This policy course contributed to a radical reduction of the level of public debt during the 2000s and the accumulation of a significant fiscal reserve. Moreover, during the boom years, the authorities carefully analysed the dynamics of fiscal revenue and identified some very specific cyclical windfall

revenues which they put aside into the fiscal reserve rather than spending them on current expenditure.

The legacy of years of fiscal prudence paid off during the crisis as the accumulated fiscal reserve provided an important cushion dampening the negative effects of the external shocks. Thus by drawing from the fiscal reserve, the authorities could contribute to the process of re-balancing of the economy and deleveraging by the private sector without putting pressure on public debt. In fact, this aspect of macroeconomic adjustment was basically accomplished with very little net new borrowing and only a marginal increase in the level of public debt.

The second key factor safeguarding macroeconomic stability was the relative *de facto* flexibility of the labour market. Such flexibility was demonstrated especially in the downward adjustment (both in employment and in real wages) during and after the crisis. This helped restore – and even improve – competitiveness, which in turn facilitated the necessary adjustment in the external balances.

The disclaimer *de facto* in this case is inserted to distinguish between how the market can be expected to behave given the existing regulations and how it behaves in fact. Such a disclaimer is necessary because, judging from existing regulations, a rapid downward labour adjustment would have been impeded by a number of safety clauses safeguarding existing jobs. These formal rigidities, however, did not prevent a relatively rapid (and still ongoing) downsizing of labour. There can be two possible explanations for this, possibly acting in combination. The first is the low degree of enforceability of regulations due to the inefficiency of the institutions responsible for that. The second is the informal labour market which, albeit diminishing, is probably still sizeable in Bulgaria.

Both factors that contributed to greater flexibility in the labour market are related to its immaturity and, for once, the immaturity of this specific market had a positive macroeconomic effect. This is by no means something flattering regarding the state of the Bulgarian labour market; it rather suggests the directions of its future reforms which should be directed towards removing the existing rigidities in the formal labour market together with bringing the grey economy into the limelight and improving the enforcement of regulations. Labour market flexibility needs to be clearly spelled out in the existing regulations; it should be transparent and enforceable. Providing employers with greater freedom to downsize labour should be accompanied with a support package to those losing their jobs, helping them to swiftly find new gainful occupations.

Summing up, two of the important self-stabilizers of the CBA did in fact act in the way they were designed to and contributed to maintaining stability. These two key factors (fiscal policy and labour market flexibility) are heavily loaded with policy content. The first one –

the fiscal policy stance – was a case of a deliberate policy choice which was meticulously pursued in good and bad times. The second one – *de facto* labour market flexibility – is a case when the reality of an emerging economy defied a consciously chosen policy course and, in this case, to the luck of the authorities.

There was also a third factor of macroeconomic stability which was void of policy content, and this was the institutional structure of private capital inflows which then surfaced in the breakdown of private foreign debt. The structure of these capital flows – dominated by inter-firm loans and long-term external debt by local firms – is in fact also to a large degree associated with the status of Bulgaria as an emerging economy. Such a structure of the private foreign debt, as argued in the paper, implies a relatively low degree of volatility and hence reduces the associated macroeconomic risks.

Another disclaimer needs to be added here. The policy focus of this paper is very narrow as it only deals with issues related to macroeconomic stability. The fact that Bulgaria deserves praise for maintaining stability in a very turbulent period does not in any case imply that it deserves praise for all aspects of its economic policy. If fact, throughout the 2000s the overall policy course has been rather hectic, inconsistent and lacking direction; but this is outside the scope of the present paper.

Besides, the fact that Bulgaria has so far escaped macroeconomic destabilization does not in any way suggest that the economy was not hit by the crisis. As discussed in the paper, the main victims of the crisis were growth and employment. In the absence of capital flows economic performance is expected to remain anaemic for some time to come. The paper also argues that there were probably missed opportunities in this regard and the economy could have gone through the crisis with less sacrifice.

As noted, some of the conclusions related to the factors of macroeconomic stability have broader policy implications. In particular, the importance of the combination of a persistently prudent fiscal stance and a flexible labour market appears to have been the key to success in this regard. This is especially so as regards preserving macroeconomic stability in the absence of independent monetary policy, the conditions faced by all countries in the eurozone.

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