Post-Communist Economies
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/cpce20

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Available online: 07 Nov 2011

To cite this article: Nikolay Nenovsky & Patrick Villieu (2011): EU enlargement and monetary regimes from the insurance model perspective, Post-Communist Economies, 23:4, 433-447

To link to this article: http://dx.doi.org/10.1080/14631377.2011.622563

Post-Communist Economies
Vol. 23, No. 4, December 2011, 433–447

EU enlargement and monetary regimes from the insurance model perspective

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(*Received 20 August 2010; final version received 31 May 2011*)

It is widely observed and recognised that economic behaviour in the post-communist countries changed after these countries joined the European Union. The insurance model of currency crises proposed by Dooley, after being modified and interpreted within a broader conceptual meaning, provides good possibilities for analysing the whole process of post-communist transformation and EU accession. This article offers an empirical illustration of the theoretical model using the examples of Bulgaria and Romania. These two Balkan countries, the latest members of the EU (since 2007), have radically different monetary regimes – respectively a currency board and inflation targeting.

It is widely observed and recognised that the economic, political and in general social behaviour of individuals, groups, elites and key players in the post-communist countries changed after these countries joined the European Union (EU). Indeed, these changes manifest themselves to different extents and take various forms. Following EU accession, certain trends, such as the lack of discipline and motivation, the re-emergence of crony behaviour, corruption and nationalism, are clearly observable. At the concrete economic level this is evidenced by broadly undermined fiscal discipline and public finances registering rapidly rising deficits. When orthodox monetary regimes are used (currency boards for example), they lose their disciplinary effects and private sector debt grows rapidly. As a whole, the ensuing post-accession trend is based on accumulating debt rather than on fiscal and monetary discipline.[1] From late 2008 this trend has been exacerbated by the global crisis and the different policy measures to help the financial and real sectors.

These phenomena raise interesting theoretical and empirical issues. The main issue lies in how we could account for such change in the new EU members during the different stages of EU accession. In fact, the same theme arises not only when observing the period of membership but also when we look back at the entire period of transformation, the 20 years of cyclical and uneven trends of alternating discipline and voluntarism, cooperation and opportunism etc.[2] A similar problem arises when we try to find an explanation for the differences in the evolution and the diversity of trajectories across countries and geographical areas (the so-called 'variety' or 'diversity' of transformation).[3]

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ISSN 1463-1377 print/ISSN 1465-3958 online

http://dx.doi.org/10.1080/14631377.2011.622563
http://www.tandfonline.com

The theoretical interpretations of these issues can be various but many common elements and theoretical bridges often link them. In our view, the insurance model of currency crises proposed more than 10 years ago by Dooley (1997; 2000) and empirically applied to the East Asian and Latin American countries (Chinn *et al.* 1999) provides good possibilities for analysing the post-communist evolution and EU accession. Dooley's model, when interpreted within a broader conceptual meaning (not in its narrow interpretation as a model of currency crises), in this case relating to the overall dynamics of the economic system, holds a particular potential for development by including a number of elements from other theoretical approaches. The insurance game model acquires both explanatory power and the potential to point to policy measures that could be useful for dealing with the so-called 'bad' dynamics witnessed not only in the new EU member states but at the EU level as well. The insurance model offers a number of concrete ideas about the level of insurance collateral (foreign reserves) and the relationship between monetary regime (domestic anchor) and euro membership (political, external anchor), their institutional compatibility or incompatibility, moral hazard dynamics and many other issues.

The main objective of this article is to propose a theoretical model that could explain the dynamics of post-communist countries. The aim is to substantiate the logical succession of cause-and-effect relations and their possible interpretations. After a brief outline of Dooley's insurance model, we put forward our arguments for the directions in which the model could be modified and how it could be adapted for the purpose of interpretation of the post-communist transformation. What it offers that is new relative to previous studies, those elaborating a general model of transition and especially those analysing EU conditionality and the post-EU period, consists mainly in proposing a simple operational model in which the basic behaviours are reduced to comprehensible macroeconomic relationships. This in turn gives opportunities for empirical verification. In this regard, in the last part of the article we offer an empirical illustration employing the examples of Bulgaria and Romania, the two Balkan countries which are the newest members of the EU (since 2007) and which use two opposite monetary regimes, a currency board and inflation targeting respectively.

Dooley's insurance model – a synthesis

Dooley put forward a model, a variant of the first generation model of currency crises, broadened to include the issues of moral hazard and the role of the banking sector and to expand and redefine the assets and liabilities of economic players' balance sheets (Dooley 1997, 2000). The new elements included more theoretical flexibility and much more opportunity to further develop the otherwise deterministic first model of currency crisis (Krugman's pioneering work (1978)) in the direction of nonlinearities and multiple equilibria, albeit in another form than Obstfeld's (1996) second-generation currency crisis interpretation.

The main idea of the model is the assumption that there is a logical cause-and-effect chain which leads to a crisis. The major reason for this is the following. The government is under a borrowing constraint, i.e. it cannot borrow currently against future revenue (taxes). In this situation, its net external assets operate as a tool to achieve two objectives. The first objective is to serve as collateral securing the government itself, its liabilities, external debt mainly. The second objective consists in acting as as collateral for the private banking sector's liabilities (to non-residents), as it is assumed that the government will fulfil its lender of last resort function. By means of its net external assets, the government becomes

simultaneously a credible insurer and self-insurer. These net government external assets (in Dooley's model these assets are approximated by official foreign reserves), when positive, are considered as free insurance against a bank crisis and serve as a powerful incentive for non-resident investors to use this free insurance.

After initial constraint loosening, following some form of initial shocks expressed in a decline in international real interest rates (because nominal interest rate declines faster than the price level), or in different forms of debt cancelation, credit lines agreed, successful monetary reforms etc., the return on deposits becomes attractive to non-residents, thereby raising capital inflows. The free insurance intensifies the banks' fight for deposits, for which purpose they offer increasingly higher interest rates on these deposits. The capital inflows lead to growing liabilities in the private sector. Once liabilities equal the government's net external assets, the dynamics reverse, an attack on the insurance fund starts and a crisis begins. The interest rate spread melts and non-residents start withdrawing their deposits. Banks, in turn, are forced to sell assets and collect the deposit insurance from the government.

Generally, Dooley believes that there are three preconditions for such a crisis, namely: (i) the external assets of the government should have a net positive value; (ii) the government's commitment should be credible, i.e. the government should be ready to pay its debts and protect the banking system, and (iii) private investors should have free access, i.e. there is no capital control.[4] Subsequently, Dooley's model was applied to Latin America and Asia and gives relatively good explanations of the crises in these regions (Chinn *et al.* 1999).

This in general outlines the theoretical miniature model which, in our view, could be used as the basis for understanding the developments over the last 20 years in the former socialist countries.

What are the directions in which the model could be expanded and modified?

Insurance model extension for post-communist transformation and EU accession

First, the model could be interpreted in a much broader sense as a complex linkage between the institutional anchor (its credibility and disciplinary effect) on one side and the dynamics of the collateral and the liabilities on the other side, a linkage that shapes the differences across periods and countries.

Second, the model could be expanded to include two anchors (monetary regime and EU membership) while also describing the relationship between them and illuminating their mutually enhancing or eliminating effect. The monetary regime plays the role of system internal anchor (institution) and the EU plays the role of external anchor (institution) that together coordinate the expectations and behaviour of economic agents. Within a concrete context this second link could be expressed as the inclusion of three new functional relationships, specifically (i) the insurance premium as a function of the collateral's dynamics (which is implied though not formalised in Dooley), (ii) foreign reserves as a function of the credibility of the anchors, and finally (iii) the relationship between these anchors.[5]

Third, the model can include a number of dependences stemming from the relationship between external transfers (in this case EU pre-accession and EU structural funds), moral hazard, information and incentive distortions, redistribution processes etc.

The insurance game has its specific features during the different stages of transition and EU integration that could be differentiated as different institutional regimes and interpreted in the following way. The first stage $[T_0 - T_1]$ could be defined as from the

second half of the 1990s (1996/97) when practically all countries had undergone different degrees of crisis (point T_0) until the decision was taken for EU enlargement to include the new countries and the negotiation processes started (point T_1). The second stage [$T_1 - T_2$] began at T_1, the negotiation point and continued until actual EU membership at point T_2. The third stage [T_2 – the present] began at T_2 and covers the period of full EU membership (in the case of Bulgaria and Romania, from 2007). The current crisis could be seen as the starting point of a new stage which we will not elaborate here.

For the first stage [$T_0 - T_1$] and even for the period before T_0, i.e. from the collapse of the socialist system until the start of negotiations, the sequence of events and relations is as follows. After the Soviet bloc's disintegration, the choice of a geostrategic orientation and national identification became the most pressing issue (for details see Abdelal 2001), a choice which is key to interpreting the chain of events that followed and the diversity of trajectories across countries. This choice is manifested in two basic anchors, economic and geopolitical. In our view, money and monetary regimes fulfil the main functions of an economic anchor, while EU membership (or non-membership) fulfils the basic functions of a geopolitical anchor.

Without going into details, we will note that the anchor's main function is to coordinate the expectations, interests and behaviour of the social players. The anchor plays two basic roles, i.e. disciplinary effect and credibility effect.[6] We can accept that the credibility effect is more or less associated with assets dynamics (collateral) and the disciplinary effect more or less with liabilities (loans etc.). In turn, the two effects are sometimes mutually enforcing, sometimes mutually eliminating or weakening.

A historical review of the last 20 years shows that the countries within the socialist bloc were characterised by different trends and groupings of monetary regimes.[7] The Baltic countries, for example, had the main goal of quickly leaving the Soviet zone and integrating into the modern Western community. This strategic choice needed a signal that would fix the abandoning of the ruble zone through the choice of currency board arrangements. A currency board legally fixes the exchange rate to a strong Western currency, stipulates monetary base coverage and eliminates discretionary monetary policy as 'hands-tying mechanisms'. These countries then carried out rapid economic and political liberalisation as a total negation of the planned system followed by speedy EU integration. Relatively similar, although slower, developments took place in the other Central European countries – Poland, Hungary, the Czech Republic and Slovakia – while Bulgaria and Romania took a different type of trajectory with more variability and hesitation about their monetary regimes and geopolitical choices. Bulgaria and Romania are the object of our empirical study in the next section.

From the begging of transition to point T_0 and for the first defined period [$T_0 - T_1$] the monetary anchor was the leading one and the only one actually existing. It was still unclear whether the EU would enlarge. A monetary regime served as a manifestation of the national choice and its task was to indicate a departure (or not) from the Soviet bloc and integration (or not) into the zone of advanced market economies.[8] If we consider, for example, the exchange rate and monetary regimes, we can observe that the choice of a fixed exchange rate was dictated by the desire to gain discipline and credibility, which did not exist in the late communist system. In order for these fixed exchange rate regimes to start functioning, cancellation of foreign debts and accumulation of minimum foreign reserves were needed.[9] This was achieved in various ways: foreign loans were extended, a number of 'historically' blocked foreign reserves held in Western countries were recovered, debts were cancelled or restructured etc. This ultimately led to the emergence of a minimum level of credibility and a positive value of net external assets, i.e. of

collateral. It was at this time that the insurance game started, the logic of which we explained. Rapid liberalisation and increased economic flexibility (one extreme case is Estonia) made it possible to limit and counteract the adverse effects of the insurance process and to limit moral hazard behaviour.[10] Practically all countries experienced crisis in 1996/97.

To summarise, in $[T_0 - T_1]$ we have the first post-communist regime when only one anchor existed, the monetary one, and when the countries differed according to their choice of specific form of monetary anchor.

At the end of the 1990s or later, the second period started $[T_1 - T_2]$. After crises of various kinds and degrees, at T_1 a new anchor emerged, i.e. the decision for EU enlargement and the start of the negotiation process for membership. It is important to note that at that time the EU took on no commitments, either in general political terms or in terms of crisis support etc., that could widen the collateral and boost the insurance game. The lack of explicit and implicit guarantees from the EU made it possible for the two anchors (monetary and geopolitical) to move in the same direction and in a way to enhance each other. Some of the countries, especially those from Central Europe, gradually moved to exchange rates that are more flexible or to the alternative of inflation targeting. The Baltic countries retained their fixed exchange rates just as Bulgaria did by introducing a currency board in mid-1997 but tried to compensate by introducing more market flexibility.

The efforts of the key players, and the public at large, were aimed at complying with the restrictions and preparing for EU membership, which required observing strong discipline. The new EU anchor introduced the fresh infusion of credibility needed to sustain the growing trend of the insurance game. In other words, the fresh EU anchor compensated for the diminishing marginal importance of the old monetary anchor. We can say that the credibility effect and the disciplinary effect are acting in unison and institutionally compatible. This coincided with the decline of interest rates on international markets and liquidity excess, which finally led to a strong capital inflow. In turn, capital inflows increased banking sector liabilities. In addition, the pre-accession funds started to flow in too.

On the whole, despite the potential accumulation of risky behaviour, overall in the second period $[T_1 - T_2]$ two anchors existed and they were more in harmony that in conflict. In the case of currency boards, for example, the public sector and public finances were restricted and needed to be in surplus because private sector debt started to grow rapidly and the private sector took on more risk

In the last phase, which started at T_2 and continues to the present, i.e. EU membership, things changed considerably. A range of guarantees emerged, mostly implicit, for intervention in times of crisis. Uncertainty regarding the value of collateral rose, as did asymmetry of information and moral hazard in the banking system. Generally, restriction was relaxed and a shift to soft budget constraints occurred. The credibility effect and the discipline effect started to work against each other and became mutually incompatible.[11] The new anchor began to undermine the credibility of the monetary anchor, notably in the countries with fixed exchange rates and currency boards. Reliance now was upon the new anchor and the old one was no longer valued, which caused a shock to the collateral and led to its impairment. The role of foreign reserves declined while the role of implicit aid increased. Private liabilities rose enormously. In a sense, we can speak of a process of driving out the explicit, visible and clear anchor of the monetary regime by the implicit, invisible and insecure anchor of EU membership. The former strengthens the discipline effect while the latter weakens it. The new EU funds amplify moral hazard, distort

incentives and motivations, and fuel the fight for misappropriation of these funds. Non-cooperative behaviours come to prevail and corruption and crony strategies gain ground again, which ultimately widens social differentiation.[12] This holds some analogies with Gresham's law of bad money driving out good money.

In 2008 the current crisis finally broke through into the new EU member states, causing a sharp turn in the dynamics of the collateral (insurance) and the liabilities that insurance covered. While the former decreased, the latter rose. Liabilities increased because the quality of loan portfolios deteriorated and the volume of bad debts increased, and this inevitably led to the expansion of the functions of net foreign assets (they now also had to cover the losses of the banking system). Furthermore, the crisis came as an initial shock, which led to a bank panic or an attack on the exchange rate in the fight to exercise the insurance option.

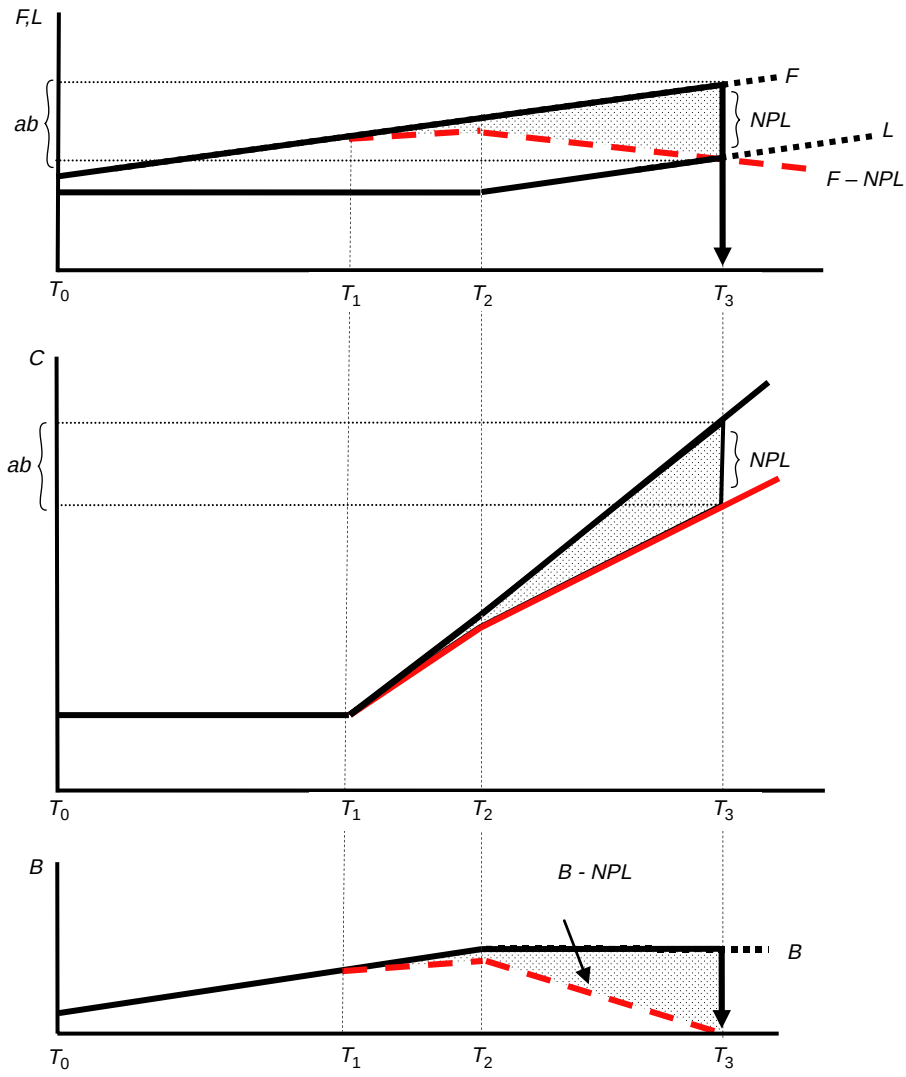


Figure 1. Graphical presentation of the insurance model.

The story of the three phases can be illustrated graphically as a modification of the graph from Dooley (1997, p. 16) and Chinn *et al.* (1999, p. 662). Figure 1 shows the dynamics and changes in the structure of the net assets of the government and the liabilities of the private sector.

The three periods are presented, $T_0 - T_1$, $T_1 - T_2$ and $T_2 - T_3$ where T_3 is the moment of probable collapse, with the dynamics of the main building blocks of our insurance model. We use the following notation: F for foreign reserves, L for public debt, C for private debt, B for net reserves and *NPL* for non-performing loans. On the horizontal axis we have the timeline. The top graph shows the dynamics of government foreign assets F and liabilities L. The middle graph shows private liabilities C and non-performing loans *NPL*, and the bottom graph net foreign assets B, with and without *NPL*.

In period $T_0 - T_1$ only the monetary regime plays a definite role. Foreign reserves F increase, public debt L is stable, as is private debt C, and net reserves B increase.

During the second phase, $T_1 - T_2$, the period of negotiation and anchoring to the EU, reserves F continue to increase and the public debt L is stable. The EU credibility effect provokes an explosion of private debts C. The two anchors, the EU and the monetary regime, are compatible. Non-performing loans *NPL* begin to emerge but remain limited.

Then the third period, $T_2 - T_3$, arrives with EU entry. This time the credibility effect works against discipline. Private debts explode, spurred on by the implicit guarantee offered by the EU. *NPL* also explode. Even if foreign reserves F continue to rise, net reserves *(F-NPL)* decline. The two anchors (monetary and political) become mutually inconsistent. The *(F-NPL)* balance is important because F reserves are an implicit guarantee to the banking sector for refinancing in the event of non-repayment of bad debts. Therefore, an attack is inevitable at some point. At T_3 net reserves B are just equal to *NPL*, limiting the implicit coverage of the banking system. In addition, bad loans are not guaranteed. In the diagram, the crisis takes place at T_3, when $B\text{-}NPL = 0$, but the crisis may start earlier. The important point is that the crisis comes even when foreign exchange reserves F are relatively stable, which means that it is not the explicit guarantee of the currency board that is in question but all implied guarantees on the banking sector. In other words, we observe a crisis more of banking origin than a currency crisis *per se*. Moreover, this crisis is produced by the incompatibility between the decrease in discipline triggered by EU entry and the monetary regime.

Empirical illustrations – Bulgaria and Romania

To illustrate the above model, consider the development of Bulgaria and Romania, the last two countries integrated into the EU in 2007. Bulgaria and Romania are often mentioned as an example of failed and crony transition, corruption and political instability. The decision for their acceptance, which was political in nature, is often subject to criticism. There is a basic difference between the two countries: Bulgaria and Romania differ significantly in their choice of monetary regime. While Bulgaria employs an extremely orthodox currency board regime introduced after the deep financial crisis in 1996/97, Romania, after the crisis in 1996, continued to improve its discretionary monetary policy and in 2005 announced the transition to inflation targeting although many deviations from the inflation targeting principles could be noted.

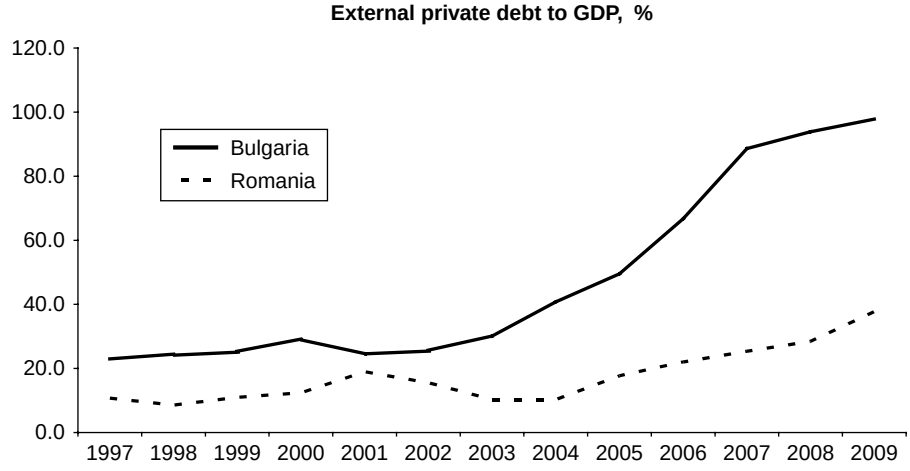
Different monetary regimes (internal anchor), in conjunction with Euro membership (external anchor), shape the whole structure of the economy differently and concentrate economic activity, risks and adjustment mechanisms in different ways. For example, the

hard currency regime in Bulgaria disciplined the public finances and the public sector, concentrating activities and risks in the private sector. The situation is different in Romania, where the possibilities for conducting monetary policy lead to relatively greater development of the public sector and public debt and less discipline in the public finances. Figures 2–10 illustrate our argument.

First, the public external debt decreased significantly in both countries while private foreign debt rose. This was especially pronounced in the period preceding EU membership and later during effective membership (Figures 2, 3 and 4). In Bulgaria the private foreign debt reached a level close to 100% of GDP. In Romania the figure was closer to 40%. Here is one of the main differences in the loss of discipline in the two countries. The loss was more concentrated in the private sector in Bulgaria and more in the public sector in Romania, where public debt, and especially its domestic component, grew. It is worth noting here the sudden and considerable rise of public sector wages in Romania in 2008, difficulties with maintenance of the budget in 2009 and thereafter the agreement with the IMF and the IFIs. In some sense, we could even speak about two types of moral hazard, caused respectively by the private sector (Bulgaria) and the public sector (Romania).[13] While Bulgaria maintained a fiscal surplus determined by the restriction of the currency board, Romania always ranbudget deficits (Figure 5).

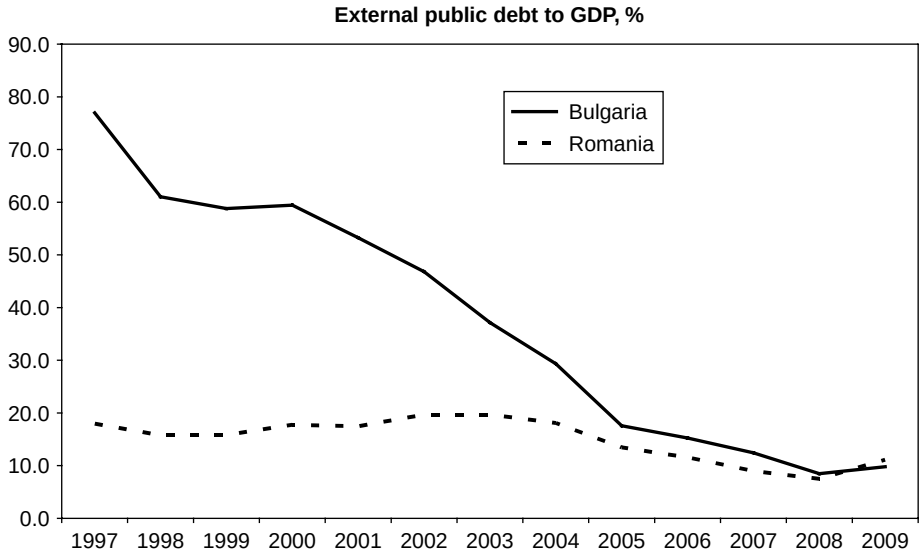
Second, Figures 6 and 7 show the rapid growth of private debt in Bulgaria and Romania as well as the increase in bad loans (*NPL*), which was especially pronounced after EU membership in 2007 (Figure 8).

Third, following the basic logic of the insurance model, it is worth looking at the behaviour of foreign exchange reserves and net assets of the government. (Figure 9 and 10) show that around 2004/05 foreign exchange reserves (international reserves) began to surpass public liabilities. This is precisely the moment where the strength of the credibility effect generated by the two anchors is visible (this point corresponds roughly to point T_2 in the theoretical model presented in Figure 1). Then the loss of discipline is observed, manifested first in a major increase in private foreign debt and subsequently in



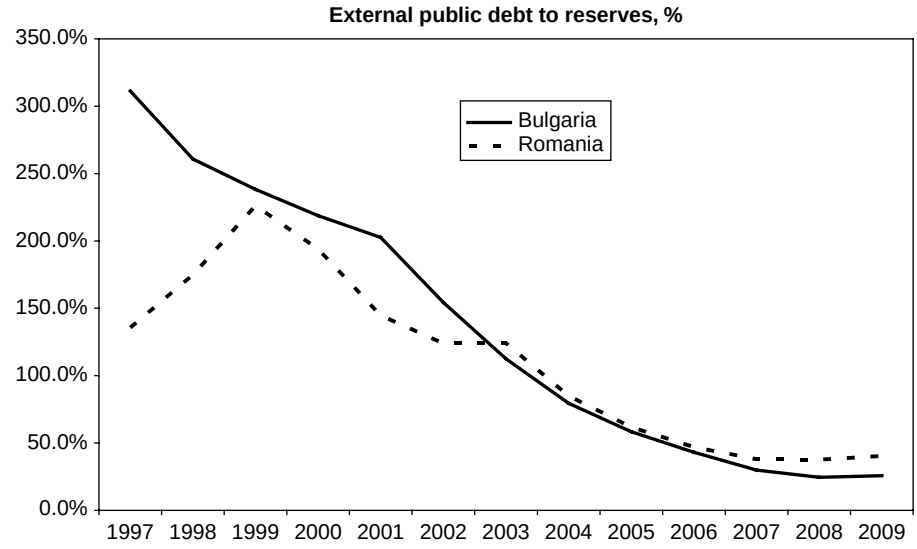
Source: Bulgarian National Bank, National Bank of Romania, Bulgarian and Romanian Ministries of Finance.

Figure 2. External private debt as % of GDP.



Source: Bulgarian National Bank, National Bank of Romania, Bulgarian and Romanian Ministries of Finance.

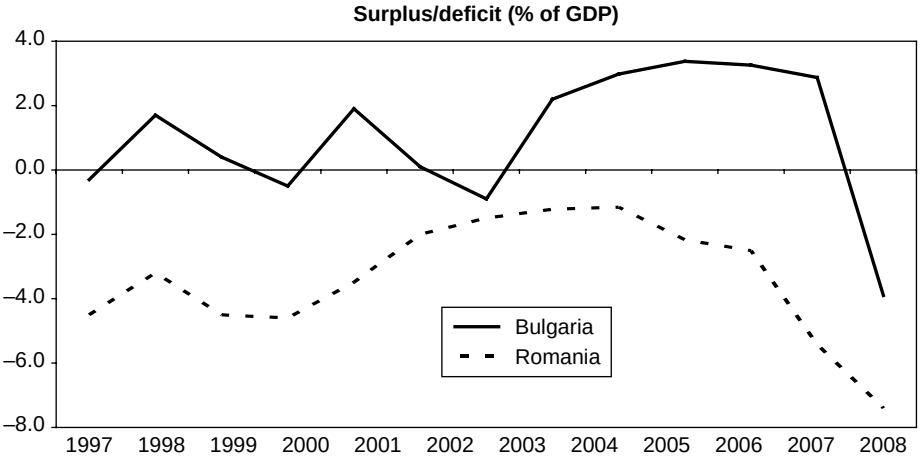
Figure 3. External public debt as % of GDP.



Source: Bulgarian National Bank, National Bank of Romania, Bulgarian and Romanian Ministries of Finance.

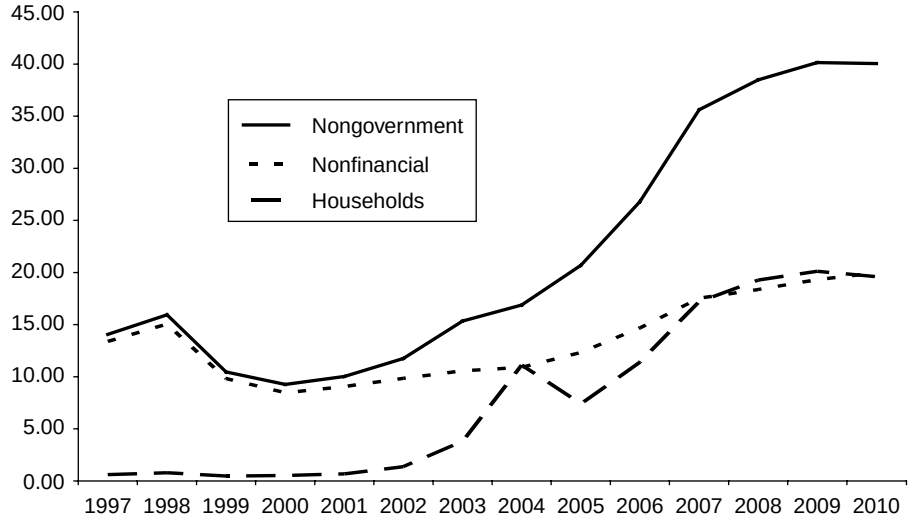
Figure 4. External public debt as % of foreign reserves.

accumulation of non-performing loans. The graphical representation gives a first approximation of the theoretical relationships, clearly showing the insurance moment, i.e. the time when the foreign exchange reserves line crossed the public debt line and the positive difference begin to play the role of free collateral for the private sector.



Source: Bulgarian National Bank, National Bank of Romania, Bulgarian and Romanian Ministries of Finance.

Figure 5. Budget surplus/deficit as % of GDP.



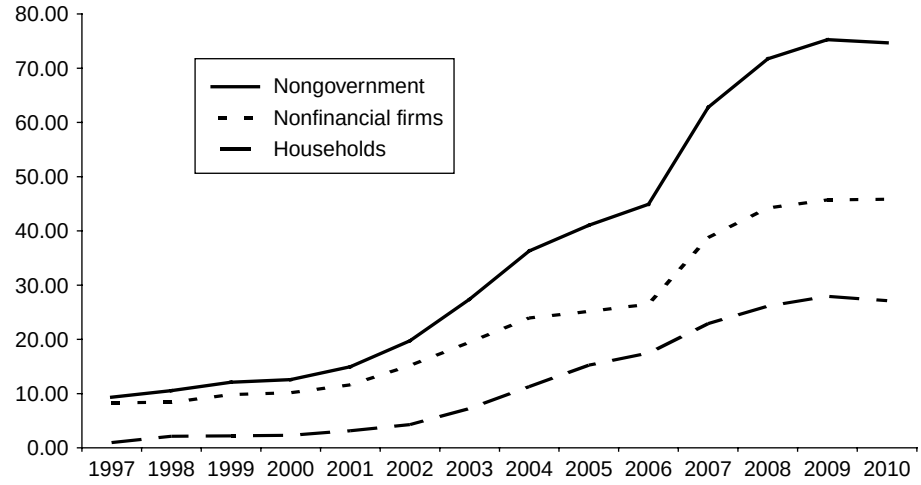
Source: Bulgarian National Bank.

Figure 6. Bulgaria: credit as % of GDP.

Concluding remarks

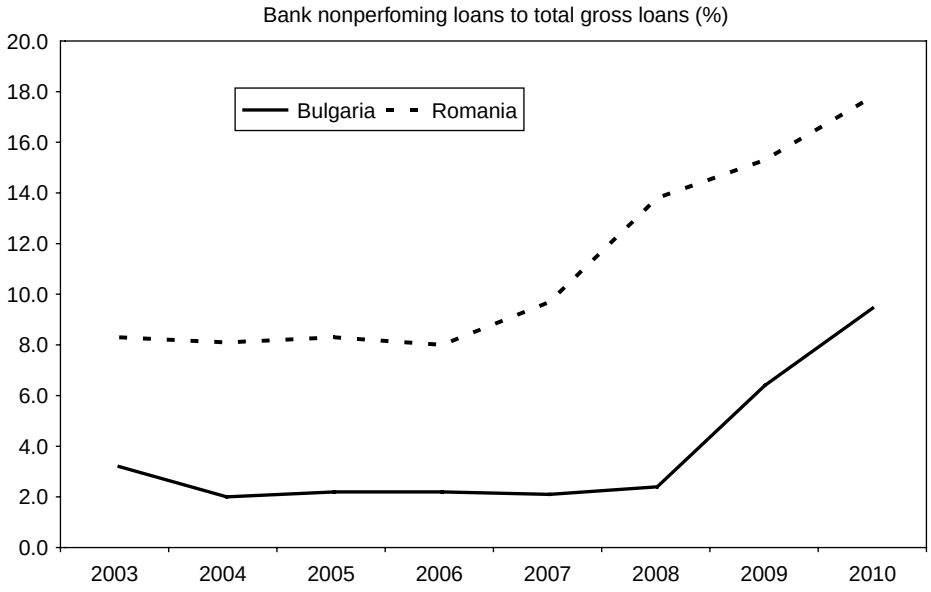
It is reasonable to consider the theoretical and empirical limits of the model presented and possible extensions. In purely theoretical terms, there are several possible developments. These concern mostly refinement, development and formalisation of all functional relations, assuming their various nonlinear forms, presence of thresholds etc. Another possible direction is the theoretical elaboration and compounding of the anchors in order to make them operational, easier to quantify and to measure.

The confrontation of our model with reality needs its basic notions and concepts to be quantified and statistically checked. Of course, empirical verification cannot prove a theory by



Source: National Bank of Romania.

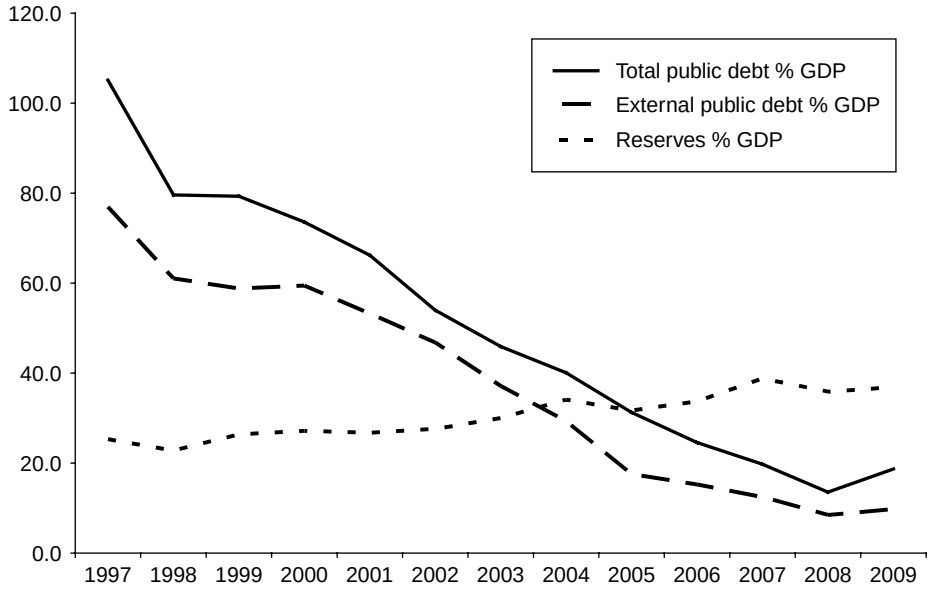
Figure 7. Romania: credit as % of GDP.



Source: National Bank of Romania, Bulgarian National Bank.

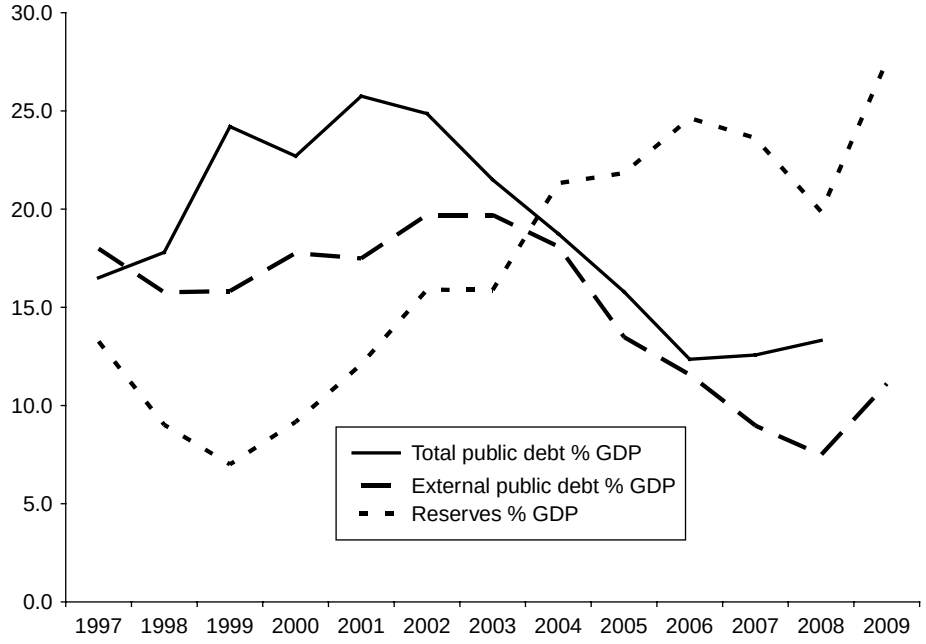
Figure 8. Non-performing loans in Bulgaria and Romania as % of total loans.

itself but meaningful use of statistical data would be of benefit to the theoretical model. Quantification and empirical verification of institutional concepts is an extremely difficult task. The important thing is to find reasonable approximations for the fundamental institutional (anchor) variables. For example, an approximation for the monetary anchor could be the behaviour of various monetary variables (currency in circulation/deposits ratio, money multiplier volatility, CDS premiums etc.) or the results obtained from different sociological polls (Valev and Carlson 2007). Concerning the political, EU anchor and its



Source: Bulgarian National Bank, Bulgarian Ministry of Finance.

Figure 9. The Insurance game: Bulgarian public debt and foreign reserves.



Source: National Bank of Romania, Romanian Ministry of Finance.

Figure 10. The Insurance game: Romanian public debt and foreign reserves.

impact on new members, things are even more complex.[14] Substantial quantitative work is necessary on the definition of collateral, either explicit or implied, and accurate measurement of public and private liabilities

Finally, it is important to elaborate a coherent set of practical proposals that can form the basis of an economic policy seeking to prevent and counter the emergence of the insurance game, and to mitigate its consequences when the game appears.

Notes

1. What is now happening in Greece, Ireland and other South European countries and in the euro zone in general may have similar explanations to those proposed in this article.
2. See Ialnazov and Nenovsky (2011) on the interpretation of transition from the perspective of cooperation and game theory. On social anchors and the euro-integration process see also Ialnazov (2003).
3. Without claiming to be exhaustive, we could mention Kornai (2000), Abdelal (2001), Aslund (2002), Colombatto (2002), Pejovich (2003), Winiecki (2004), Beck and Laeven (2005), Sandholtz and Taagepera (2005), Csaba (2007) and Petrovic (2008).
4. Moreover, Dooley's model can be expanded with new elements, related for instance to the role of uncertainty about the foreign reserves (collateral) which the government is ready and able to mobilise, i.e. uncertainty is seen as a trigger of crisis (Aizenman and Marion 1999). An alternative extension is to include asymmetry of information (adverse selection) about bank assets (Furman and Stiglitz 1998), which intensifies with the increase in deposits, i.e. the collateral secures increasingly risky liabilities.
5. Two possible formalisations of the present model are set out in Nenovsky (2010).
6. The integrating social role of money as an anchor was noted quite some time ago (see Simmel 1990 [1900, 1907]), as well as the fact that it is an important part of the national identity (Helleiner 2003). On discipline, the credibility and the confidence effect of monetary regimes, and their links, see Raybaut and Torre (2005). On the role of the broad institutional context in which a monetary regime fits see Ball (1999) and Nenovsky (2006).
7. On the evolution of monetary regimes in post-communist countries see Nenovsky (2006, 2009). These differences are determined not only purely economically but also by the institutional development, which generally speaking determined how far and how fast the systemic soft budget constraints inherited from socialism and known from the work of the Hungarian scholar Janos Kornai (1980) are eliminated. For extensive discussion of this see Vahabi (2001).
8. Just as the adoption of the gold standard in the late nineteenth century was considered a strategic, national and civilisation choice in some peripheral countries, such as Russia, Japan, the Balkans etc.
9. This bears a resemblance to the policy of mercantilism from past centuries, when international reserves were considered a symbol of autonomy, independence and power.
10. The existence of flexibility of goods and labour markets is the major requirement for the success of fixed and rigid monetary regimes, which has been known ever since the operation of the gold standard (Desquilbet and Nenovsky 2005).
11. The dangers of relaxing budget restriction, increasing moral hazard and diminishing the credibility of the monetary authorities within the context of monetary coordination and monetary union have long been an object of analysis: see Rogoff (1985). As Feldstein points out (1988, p. 11), 'governments may not take the politically painful steps that they should because they believe that foreign actions will make such policies unnecessary or because they want to use their lack of action as part of a bargaining strategy to induce desired policies on the part of foreign governments'. The same author also mentions the existence of this 'free rider' in the EU and the euro area years later (Feldstein 2005). Today the loosening of budget constraints and the underestimation of this process in the EU is widely recognised; see Bini-Smagni (2010).
12. In Ialnazov and Nenovsky (2011) the above three phases of post-communist transition are interpreted from the perspective of the relative predominance of cooperative and non-cooperative strategies within the framework of two types of big social games, the 'prisoner's dilemma' (lack of a common goal) and the 'stag hunter' (the existence of a common goal). These two types of meta-games depend on the existence and the character of anchors. On the adverse impact of foreign aid and financing see Bauer (2000), Zettelmeyer (2000) and Williamson

(2010). In the light of the above we can propose the hypothesis, extravagant at first glance, that the lower its utilisation of euro funds, the better the economy develops.

13. On this difference see Nenovsky *et al.*(2011).
14. See for example the interesting empirical analysis by Mathisen and Mitra (2010), who try to differentiate the movement of capital due to the influence of the EU (convergence factors) and that caused by different types of monetary regimes. In the same direction is the study of Hegerty (2009) on the role of fixed exchange rates in explaining the movement of capital in the Baltic countries and Bulgaria. See also Lane and Milesi-Ferretti (2007).

References

Abdelal, R., 2001. *National purpose in the world economy. Post-Soviet states in comparative perspective*. Ithaca, NY: Cornell University Press.

Aizenman, J. and Marion, N., 1999. Reserve uncertainty and the supply of international credit. *NBER working paper*, no. 7202.

Aslund, A., 2002. *Building capitalism. The transformation of the former Soviet bloc*. Cambridge: Cambridge University Press.

Ball, R., 1999. The institutional foundations of monetary commitment: a comparative analysis. *World development*, 27, 1821–1842.

Bauer, P., 2000. *From subsistence to exchange*. Princeton, NJ: Princeton University Press.

Beck, T. and Laeven, L., 2005. Institution building and growth in transition economies. *World bank policy research working paper*, no. 3657.

Bini-Smagni, L., 2010. Challenges for the euro area and the world economy. *The group of thirty*. Rabat, 28 May 2010.

Chinn, M., Dooley, M. and Shrestha, S., 1999. Latin America and East Asia in the context of an insurance model of currency crises. *Journal of international money and finance*, 18, 659–681.

Colombatto, E., 2002. Is there an Austrian approach to transition? *Review of Austrian economics*, 1 (15), 61–74.

Csaba, L., 2007. *The new political economy of emerging Europe*. Budapest: Akadémiai Kiadó/Kluwer.

Desquilbet, J.B. and Nenovsky, N., 2005. Confiance et ajustement dans les régimes de caisse d'émission. *Monde en développement*, 2 (130), 77–95.

Dooley, M., 1997. A model of crises in emerging markets. *NBER working paper*, no. 6300.

Dooley, M., 2000. A model of crises in emerging markets. *The economic journal*, 110, 256–272.

Feldstein, M., 1988. Distinguished lecture on economics in government: thinking about international economic coordination. *Journal of economic perspectives*, 2 (2), 3–13.

Feldstein, M., 2005. The euro and the stability pact. *Journal of policy modelling*, 27, 421–426.

Furman, J. and Stiglitz, J., 1998. Economic crises: evidence and liquidity. *Journal of political economy*, 91, 401–419.

Hegerty, S., 2009. Capital inflows, exchange market pressure, and credit growth in four transition economies with fixed exchange rates. *Economic systems*, 33 (2), 155–167.

Helleiner, E., 2003. *The making of national money: territorial currencies in historical perspective*. Ithaca, NY: Cornell University Press.

Ialnazov, D., 2003. Can a country extricate itself from its post-socialist trajectory? The role of external anchors in Bulgaria. *Comparative economic studies*, 10, 85–103.

Ialnazov, D. and Nenovsky, N., 2011. A game theory interpretation of post-communist evolution. *Journal of economic issues*, XLV (1), 41–55.

Kornai, J., 1980. *Economics of shortage*. Amsterdam: North Holland Press.

Kornai, J., 2000. What the change of system from socialism to capitalism does and does not mean. *Journal of economic perspectives*, 14 (1), 27–42.

Krugman, P., 1978. A model of balance-of-payments crisis. *Journal of money, credit and banking*, 11 (3), 311–325.

Lane, Ph. and Milesi-Ferretti, G-M., 2007. Capital flows to Central and Eastern Europe. *Emerging markets review*, 8, 106–123.

Mathisen, J. and Mitra, S., 2010. Managing capital inflows: emerging Europe is different, again. *VoxEU*, 25 May 2010.

Nenovsky, N., 2006. Monetary convergence on the road to EMU: conceptual issues for Eastern Europe. *ICER working paper*, no. 33.

Nenovsky, N., 2009. Monetary regimes in post-communist countries: some long-term reflections. *Sofia: agency for economic analysis and forecasting working paper*, no. 2.
Nenovsky, N., 2010. EU enlargement and monetary regimes from the insurance model perspective. *WDI working paper*, no. 997.
Nenovsky, N., Tochkov, K. and Turcu, C., 2011. From prosperity to depression: Bulgaria and Romania (1996/97 – 2010). *WDI working paper,* no. 1018.
Obstfeld, M., 1996. Models of currency crises with self-fulfilling features. *European economic review*, 40 (3/5), 1037–1047.
Pejović, S., 2003. Understanding the transaction costs of transition: it's the culture, stupid! *The review of Austrian economics*, 16 (4), 347–361.
Petrovic, M., 2008. The role of geography and history in determining the slower progress of post-communist transition in the Balkans. *Communist and Post-communist Studies*, 41, 123–145.
Raybaut, A. and Torre, D., 2005. Discipline, confiance et stabilité des régimes de caisses d'émission en transition vers l'euro. *Colloque international,* Marrakech, March.
Rogoff, K., 1985. Can international monetary policy cooperation be counterproductive? *Journal of international economics*, 18, 199–217.
Sandholtz, W. and Taagepera, R., 2005. Corruption, culture, and communism. *International review of sociology/Revue internationale de sociologie*, 15 (1), 109–131.
Simmel, G., 1990 [1900, 1907]. *Philosophy of money*. London: Routledge.
Vahabi, M., 2001. The soft budget constraint: a theoretical clarification. *Recherches économiques de Louvain (Louvain economic review)*, 67 (2), 157–195.
Valev, N. and Carlson, J., 2007. Beliefs about exchange rate stability: survey evidence from the currency board in Bulgaria. *Journal of economic policy reform*, 10 (2), 111–121.
Williamson, C., 2010. Exploring the failure of foreign aid: the role of incentives and information. *The review of Austrian economics*, 23, 17–33.
Winiecki, J., 2004. Determinants of catching up or falling behind: interaction of formal and informal institutions. *Post-communist economies*, 16 (2), 137–152.
Zettelmeyer, J., 2000. Can official crisis lending be counterproductive in the short run? *Economic notes*, 29, 13–29.