National Bank of Romania

Monetary Policies and Banking Institutions in South-Eastern Europe between National Objectives and European Patterns – a Historical and Comparative Perspective

Sixth Conference of the South-Eastern European Monetary History Network (SEEMHN)

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INTRODUCTION

On 18 March 2011, the National Bank of Romania hosted the Sixth Conference of the South-Eastern European Monetary History Network (SEEMHN) in Bucharest.

The SEEMHN is a community of researchers in the history of economics, economists and statisticians alike, established in April 2006 on the initiative of the National Bank of Bulgaria and the Bank of Greece. The Network is currently supported – aside from the aforementioned institutions – by the central banks of Albania, Austria, Romania, Serbia and Turkey. It aims to develop and promote the economic history of South-East Europe as an integral part of the pan-European experience.

In particular, the SEEMHN focuses on comparative analyses in the history of economics, as well as on developing statistical and historical data series for Central and South-East Europe based on up-to-date data collection and processing standards. This contributes to a better understanding of the past and present of this region, which encompasses countries that shared many experiences during their economic history.

Data collection and processing with a view to establishing a historical database on South-East European statistics in the 19th and 20th centuries lie at the root of the activity carried out by the SEEMHN. Partial data have been published so far, both in 2007 with the support of Oesterreichische Nationalbank and in 2009 under the aegis of the Bank of Greece. The third volume is currently underway, thanks to financial support from the central banks of Austria, Bulgaria, Greece and Romania. It will include several statistical and historical data series, starting with the 19th century until the end of World War II.

A conference focusing on topics related to the history of economics in the area is organised every year and is hosted by the central banks in the region. Such conferences have been hosted so far by the National Bank of Bulgaria in Sofia in 2006, by the Oesterreichische Nationalbank in Vienna in 2007, by the Bank of Greece in Athens in 2008, the National

Bank of Serbia in Belgrade in 2009, and by the Bank of Turkey in Istanbul in 2010. The meetings address historical experience in terms of the lessons learned for explaining the present and forecasting future developments.

The 2011 conference hosted by the National Bank of Romania in Bucharest focused on the topic "Monetary Policies and Banking Institutions in South-Eastern Europe between National Objectives and European Patterns – a Historical and Comparative Perspective" and brought together researchers from Bulgaria, Greece, Turkey, Albania, Serbia, Austria, Romania, France, Germany, and Belgium. It was aimed at fostering a debate on the influence of Western economic growth patterns on the developments in South-East Europe.

The event was honoured by the presence of Mr. Bogdan Olteanu, Deputy Governor of the National Bank of Romania, who delivered a welcome speech and thus marked the start of the conference debates. Mr. Olteanu reiterated the National Bank of Romania's support for SEEMHN projects and voiced his belief that they would help promote the shared historical heritage of South-Eastern Europe.

Since South-Eastern Europe has an extensive track record in taking over and customising the economic growth patterns put forward by the West, the conference focused on the importance of choosing the appropriate development pattern and implementing it efficiently as a means of bridging the gap in terms of economic development and not only. Thus, the topic was a good opportunity to examine – in light of comparative economic history – the paths pursued by South-East European countries in adopting the development patterns tested at European level, as well as their efforts to tailor such standards to local realities and possibilities.

This volume integrates nine of the presentations delivered during the conference.

Daniel Dăianu, former Romanian finance minister, acting as a keynote speaker, analysis the flaws of the current financial intermediation and made suggestions for its reform.

Yüksel Görmez and Serkan Yiğit (Central Bank of Turkey) reviewed the changes in monetary policies and banking institutions in Turkey during the 20th century.

Nikolay Nenovsky (University of National and World Economy, Bulgaria, CRIISEA, Université de Picardie Jules Verne, France) shared his views on the opinions expressed by Bulgarian economists with regard to developments in the aftermath of the Great Depression as an example of economic thinking in peripheral European countries.

Dominique Torre (University of Nice – Sophia Antipolis, GREDEG–CNRS, France) elaborated on the monetary views of Paul Einzig, a journalist and commentator born in the nowadays Romanian province of Transylvania, then part of Austria-Hungary.

Dragana Gnjatović (Megatrend University, Belgrade, Serbia) examined the experience of introducing European institutions for financing agriculture in Serbia, primarily Raiffeisen-type farming credit cooperatives, from 1894 to 1913.

George Virgil Stoenescu, Adriana Aloman, Elisabeta Blejan, Brînduşa Costache (National Bank of Romania) described the Romanian experience with adopting the gold standard and tailoring it to the realities of the local economy at end-19th century.

Kim Oosterlinck (Université Libre de Bruxelles, Belgium) and **Loredana Ureche-Rangau** (Université de Picardie "Jules Verne", France) examined the determinants behind the developments in Romanian government bonds on the Paris Stock Exchange during the interwar period.

Branko Hinić and Milan Šojić (National Bank of Serbia) described how Yugoslav hyperinflation was curbed in 1994.

Aleksandar Ivanović (Alexander College of Arts, Business & Management, Belgrade, Serbia) presented a comparative analysis of banks' reserve requirements computation in nine countries of South-

Eastern Europe and the Visegrad Group, along with the influence and convergence to EU parameters.

The SEEMHN continues to promote the exchange of ideas and points of view on economic developments in South-East Europe, which are inextricably linked to global developments. The seventh SEEMHN annual conference took place on 13-14 December 2012 in Tirana and was hosted by the Bank of Albania. The conference topic was Tales of Two Crises: the Great Depression and the Great Recession in South East Europe (Parallels, Crisis Management and Banking Sector Restructuring).

Professor George Virgil Stoenescu, Ph.D.

NBR Board Member

Aknowledgement

We would like to thank all the participants in the conference and the authors of the papers included herein. Our sincere appreciation goes to all the people who helped us organise the conference and, last but not least, to the translation and editing team in the NBR's Economic Research Department.

REGAINING FINANCIAL STABILITY: TAMING FINANCIAL MARKETS IS A MUST[1] – A FOCUS ON NMSs[2]

Daniel Dăianu[*]

Abstract

Something wrong has been occurring with financial intermediation in recent decades. This is like saying that structure has been no less important in derailing economies than misconceived policies and unavoidable cyclical dynamics. By structure is meant the configuration of rules and practices in the realm of regulation and supervision, on one hand; and the evolution and practices of financial institutions, including securitization and the growth of the so called shadow banking sector (which has escaped regulations), on the other hand. For a long time financial stability was relegated, *de facto*, to a second tier policy priority – especially in advanced economies. The current crisis has brought this concern back, with vengeance, and relates it to structure. Nothing seems to be certain any longer, in an increasingly stochastic world. The impact of the current crisis on NMSs illustrates the role of Structure, of the rules of the game in the EU, the nature of regulation and supervision, and not least, massive cross border operations.

NMSs look like they have tried to defy the lessons of previous crises by betting on the virtues of deep financial integration.

Keywords: Financial Stability, Structure, Integration, Systemic Risk, Regulation and Supervision

JEL Classification: E50, F36, G1, G28

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[1] *Paper based on a presentation made at a symposium organized by the National Bank of Romania, Bucharest, 4th September 2010. It was published in the Romanian Journal of Economic Forecasting 2011, Vol. 14, issue 2.*

[2] *NMSs refers to EU new member states from Central and Eastern Europe.*

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1. Introduction

The need for a radical overhaul of the regulation and supervision of financial markets has been acknowledged in all advanced economies. And yet, there still is a line of reasoning which argues that the main source of the current financial crisis is the cheap money of the past, which would have caused large global imbalances as well. But another, that I share, is that something wrong has been occurring with overall financial intermediation in recent decades. This is like saying that *structure* has been no less important in derailing economies than misconceived policies and unavoidable cyclical dynamics. By *structure* we mean the configuration of rules and practices in the realm of regulation and supervision, on one hand; and the evolution and practices of financial institutions, including securitization and the growth of the so-called shadow banking sector (which has escaped regulations), on the other hand. *Structure* has, arguably, influenced policies in view of the relative neglect of systemic risks and the almost blind belief, by some, in the self-regulatory virtues and clairvoyance of financial markets. For a long time financial stability was relegated, de facto, to a second tier policy priority – especially in advanced economies. The current crisis has brought this concern back, with vengeance, and relates it to *structure*. The "great moderation" reveals itself as a "great misperception" period, which compels a rethinking of regulations and practices, of monetary policy itself (of inflation targeting, too), of the linkages between various domains of economic policy. Nothing seems to be certain any longer, in an increasingly stochastic world. Just think about the huge difference between how Spain and Ireland were judged before and after the eruption of this crisis – with a sharp deterioration of public finances and drastic economic downturn.

The economies of EU new member states (NMSs) in Central and Eastern Europe have been most hardly hit by this financial crisis, a fact that has intrigued observers. Because these economies' exposure to toxic products was quite minimal and their budget behaviors, with some exceptions, were not profligate. And yet, apart from Poland, their economic downturn was, on average, the most significant among emerging economies. What this paper argues is that this dynamics can be explained by considering

implications of deep financial integration. The latter can bring benefits and rapid growth, which did take place in the Region until 2008, but it can also harm unless proper institutions and policies operate. Moreover, the impact of the current crisis on NMSs illustrates the role of *Structure*, of the rules of the game in the EU (complete capital account liberalization), the nature of regulation and supervision, and, not least, massive cross border operations. The case of NMSs is all the more significant since these economies imported capital on a big scale as a means to foster growth – while in Asia and Latin America, the episodes of crisis of the past two decades induced countries to attach a high premium on the accumulation of foreign exchange reserves and the reduction of current account deficits. NMSs look like they have tried to defy the lessons of previous crises by betting on the virtues of deep financial integration. This paper looks at their case and probes into future possible developments. This discussion is couched in a broader context, of the need to reform *structure* (rules and arrangements), in the EU, too. A key argument is made: in order to regain financial stability, at the international level, a return to the initial logic of the Bretton Woods arrangements is needed. The financial policy trilemma (*the impossible trinity*)[3] would ask for releasing monetary policy and trade flows from the vicissitudes posed by unconstrained financial flows. The currency war underway and rising protectionism are additional indications that new international arrangements are badly needed if an open global system is to be preserved. Finally, the paper puts forward a range of issues which need further scrutiny in order to make policy more effective.

2. Financial Stability: Rediscovering Structure

The Great Depression prompted a radical reform of the regulation and supervision of financial markets, especially in the US. The Glass Steagall Act, which split investment from retail banking epitomizes that reform. Since then the western world has not witnessed a crisis of the magnitude and implications that the current one has entailed. Arguably, this situation explains why financial stability has staged a formidable comeback on the policy-making agenda in advanced economies. Episodes of financial

[3] *Conceptualised on the basis of the Mundell-Fleming model.*

crises did occur in emerging economies during the past century recurrently. But they were thought about as a specific phenomenon of poorly developed financial systems and fragile institutions. In addition, a paradigm extolling the virtues of deregulation of financial markets dominated increasingly policy-making in advanced economies (in the US and the EU) and influenced, considerably, the policy recommendations made by the IFIs to emerging economies. Once the crisis engulfed almost the whole industrialized world[4] a watershed chain of events has taken place. A cosmology that extolled the virtues of financial markets and neglected systemic risks is fading away. Eugene Fama (and his "efficient markets hypothesis") has given way to Hyman Minsky's insights into how financial markets function. This crisis gripped the markets of the western world, where deep financial integration was seen as a complete blessing. Late in 2008 European leaders continued to be mired in the illusion of a relative robustness of EU economies. They thought that the subprime crisis across the Ocean would stay there; they seemed not to realize the extent of EU headquartered big banks' involvement in the origination and distribution of fancy financial products, the interconnectedness of the financial markets, the presence of a shadow banking sector in Europe as well. As a matter of fact, many people in central banks and finance ministries seemed not to realize the implications of the new structure of the financial intermediation system, of the shadow banking sector – with their immense risks.

The current crisis shows that something is structurally wrong with financial markets. For a long time not a few economists and policy makers decried the fact that policies are geared toward complying with markets' excessive pressure, with the power of a structure – which, seemingly, is beyond any control. What Perroux, though in a different context, called *l'emprise de la structure* (the power of structure) was a cause of major concern before this crisis. Imagine what the thinking is now in this regard. *Structure* is key in understanding the current crisis. For, on one hand, it can derail even brilliantly conceived policies; on the

[4] *Financial crises did happen in western economies in recent decades: in Scandinavian economies in the early '90s, in the US (the Savings&Loan Associations crisis in the '80s), etc. Canada has been less hit by the current crisis owing to its much better regulated and supervised banking system.*

other hand, for it can shape policies wrongly. For instance, complacency vis-à-vis the overexpansion of financial entities overexposes economy to major risks (like it happened to Iceland, Ireland, etc.). Or consider a premature opening of the capital account, as it happened in numerous Asian economies during the past decade, not least under the prodding of the IFIs, and the policy approach what propounded the deregulations of financial markets as a means to foster economic growth.

The paradigm shift which is, currently, underway is rediscovering systemic risks: the complexity and inter-connectedness of financial markets, contagion effects, "Minsky moments". But there is need to make here a distinction between two opposed cognitive approaches: one that believes that nothing can be done about the evolution of markets, whatever way financial innovation goes; and another approach, which does not take the complexion of markets as God given and has misgivings about a range of financial innovations. Networks do not mushroom accidentally only; they are also shaped by policies. As Haldane, the director of research from the Bank of England, aptly remarked: "Deregulation swept aside banking segregation and, with it, decomposability of the financial network. The upshot was a predictable lack of network robustness. That is one reason why Glass Steagall is now back on the international policy agenda"(p.31). The inference is that waves of deregulation of financial markets (see also Johnson and Kwak)[5] have amplified systemic risks and have endangered the functioning of economies.

Financial intermediation, as it has evolved during the past decades proves, peremptorily, that not all financial innovation is good, that inadequate risk and business models have been used by banks and other financial institutions. Quite a while ago clear warnings were sent regarding the growing opaqueness of markets due to securitization and off-balance sheet activity. Lamfalussy observed that financial integration made "crisis prevention and handling it more difficult" (p. 73). Moreover, the financial industry has become oversized in not a few economies. Just think of the damage caused to Ireland, Iceland, the UK, by bank overexpansion and over-risky operations. As a matter fact, the Icelandic and Irish economies

[5] *The repeal of Glass-Steagall in 1999, the Commodity Futures Modernization Act (2000), etc. have favoured high leverage, speculation, excessive risk taking, etc.*

were brought on their knees by the reckless expansion of some of their banks. Some make reference to Diamond and Mirlees (1971) and judge financial transactions as "intermediate production", which, presumably, makes economy function better. Therefore, the argument would be that no interference should take place with this intermediation. And that, consequently, it should not be taxed in order to avoid resource misallocation. But this view is more than questionable when financial intermediation develops its *raison d'etre*. This has occurred in the last couple of decades, with much of transactions undertaken for their own sake – because of inadequate incentives and other reasons. Financial entities created their own demand by enticing clients with various types of securities. They did it because of big fees. Clients accepted this game because they thought they could invest safely; others because they thought they can borrow very cheaply. Add to it the mountain of CDSs and CDOs, which have caused, directly and indirectly, an immense systemic risk[6]. Contrary to what Diamond and Mirlees say, this financial intermediation led to a large scale misallocation of resources and over-indebtedness[7]. Thence resulted the budget crisis in Europe and the US and intense deleveraging by banks. And the distortions will persist if nothing is done about it. Arguably, Diamond and Mirlees might have judged differently a state of affairs as the one we experienced, increasingly, in the financial system until the crisis irrupted. For a lot of fixed income transactions is pure speculation, which reinforces the idea that much of financial intermediation is undertaken for pure financial gains. Some say that a transaction tax would be deleterious overall, since it would increase volatility and transaction costs, but this is a one-sided argument. A liquidity crisis, as the current crisis has amply shown, is more likely when there is a rise in systemic risks. And an increasing volume of "fancy" financial transactions, instead of enhancing liquidity in markets, can bring about their standstill. What matters essentially is the nature of financial transactions, whether they create value, or are simply either a rent-seeking exercise on the part of the financial industry, or pure gambling. This is why

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[6] *Not incidentally Warren Buffett called them financial weapons of mass destruction and George Soros suggested that some of them be prohibited.*

[7] *As the head of the FDIC in the US Sheila Bair put it: "the bust was clear evidence that capital was misallocated and could have been put to more productive use", Financial Times, 24 August 2010.*

a transaction tax, as a means of reducing volatility in currency markets, does make sense. And technology can help implement it.

Banking (financial intermediation, in general) performs an essential public utility function; it can do much good, but it can also do much harm unless it is properly regulated. This is why it is essential to understand the functioning of its structure and regulate and supervise it adequately. Nowhere is more glaring the significance of structure than in the European Union, in the EMU in particular. Because, in this area massive cross border operations take place while national prerogatives in regulation and supervision, in tax policies stay, basically, in national hands. Moreover, as some stressed from its very inception, the EMU is not an optimal currency area[8]. The current crisis gas has revealed the inadequacy of existing arrangements. The latter have favored the accumulation of internal imbalances against the background of one-sided policy tools. The "one size fits all" monetary policy of the ECB could not prevent excessive capital, frequently of a speculative nature, flowing into less developed areas of the EMU, in the EU as a whole; a misallocation

[8] *The optimum currency area (OCA) theory shows that the adoption of a single currency pays off when the monetary area is highly integrated economically and has the capacity to adjust quickly to asymmetrical shocks. Traditionally there are five core OCA properties namely: wage and price flexibility, trade integration, cyclical convergence, factor mobility, and fiscal federalism, which are used to assess a success of an OCA area. On these accounts, the euro area still seems to have way to go in order to achieve an efficient functioning. In the EU wage setting continues to be done, predominantly, at the national level, and quite often at the sectorial level. This mechanism reinforces the relative inflexibility of the individual countries' labour markets. Within the euro-area real wages have tended to be downwardly rigid with a relatively high level of indexation. Moreover, although nominal interest rates have largely converged, there is a wide discrepancy among real interest rates of the Eurozone members. Although business cycles synchronization appear to have increased within the Eurozone countries, much of it has to do with the recent fall in the amplitude of global business fluctuations, which benefited from low interest rates, high economic growth and low inflation. However, considerable structural differences remain at the Eurozone country member level. European labour mobility remains fairly limited, despite persistent differences in regional unemployment. Given the existence of an independent EU monetary authority, the ECB, the argument for an EU Fiscal Authority appears to be compelling. This would create more room for manoeuvre for the fiscal mechanisms of purchasing power transfers in the face of idiosyncratic shocks. It would also place less pressure on the ECB when dealing with regional divergences. The EU budget is little more than 1 percent of the EU GDP, providing limited scope for stabilising cross-state transfers. Moreover, a large part of that budget is allocated towards spending on the Common Agricultural Policy and Structural Funds, which are weakly related to cyclical fluctuations in the individual member states.*

of resources was stimulated in this way. Likewise, an increasing entanglement of mutual exposure among financial entities has happened while burden-sharing (fiscal) arrangements were missing. Unless major changes take place in EU economic governance, in the regulation and supervision of financial markets, the very functioning of the Union is put at risk. It is not an exaggeration to say that this crisis is also one of deep financial integration. Thence the need for deep reforms, for appropriate policy and institutional underpinnings. The situation of NMSs is to be seen in this context; the accession treaties ask them to comply with the rules of a Union (structure), which entail benefits but, also, pose risks. As mentioned above, misallocation of resources took place in several NMSs[9] following a premature opening of the capital account. And inadequate regulatory and supervisory arrangements operate in their case, too, in view of the size of cross-border financial flows and the domination of local markets by foreign banks.

Outside Europe, and learning from previous crises, emerging economies tried to forestall shocks by the accumulation of foreign exchange reserves as a buffer (a high premium was put on them). This trend was reinforced by "industrial policies'' aims; uphill financial flows were seen as a cost for the build up of a wherewithal capacity in the advent of anticipated external shocks. In Europe, integration, with its financial component, was seen as a principal way to achieve catching up. And partially, this philosophy brought about expected benefits. But it has also entailed weaknesses, which are not to be linked, exclusively, with weak policies. The power of structure (including the free flow of capital) has an explanatory role in what has happened.

The reform of regulations and supervision has to target the whole structure. In my opinion, banking should get back to its roots. The Volcker's rules, what Lord Turner and Vince Cable advocate in the UK, and some EU reforms are pushing in the right direction; arguably, more is needed – not least for preventing regulatory arbitrage. Regulations need to be comprehensive, which means that the shadow banking sector (including the hedge funds, private equity funds, all kind

[9] *A Bruegel publication highlights this type of capital flow into the Baltic economies, Hungary, Romania, Bulgaria (Becker et al., especially chapter 2, 2010).*

of derivatives) be covered with no exception. Regaining financial stability, therefore, implies reforming *structure* and repairing policies. Monetary policy would have to be redefined; price stability plus financial stability, as objectives of central banks, would, quite likely, make simple rules a thing of the past. Economic policy, in general, would be harder to define and implement in a more uncertain world. For, as Pisani Ferry remarked, deterministic governance does not work in a stochastic world (2010, p.2). A consequence is that policy-makers have to develop policy space in better times, which implies, among others, that they need to conduct anti-cyclical policies.

3. A Focus on NMSs: The Role of Structure

Integration in the EU has been a strategic aim of most post-communist countries. In simplistic terms, it meant the ticket to economic prosperity and being part of an exclusive club, which would operate as a shelter as well. In many respects integration has speeded up institutional and economic progress, not least by forcing EU candidates to undertake major reforms and comply with EU rules of the game. But this crisis indicates also less rosy parts of deep financial integration – some of them linked with the total opening of the capital account and contamination effects.

Financial integration has been a major channel for the transmission of shocks. In some countries the credit crunch has been very severe, liquidity shortages were acute at the height of the crisis and even the spectre of solvency problems emerged, especially where external imbalances had grown quite rapidly in the past decade. The NMSs region experienced a much sharper capital flows reversal than Latin America or Asia during 2008-2009: capital inflows decreased by about 10 percent of GDP on average between 2007 and 2009. The fact that most of these countries are small and open, and hence typically have less domestic resources to avert crises and could be more sensitive to changes in investors' sentiment, cannot be the main reason, as there are many small countries all around the world where the crisis had less of an impact.

A more plausible reason for the special worries about NMSs lies in the deep financial integration that these countries have achieved and in the related reliance on net capital inflows. Financial integration and, in the

case of EU members, the logic of the single market, predisposed NMSs and EU candidate countries to external imbalances. The reliance on net external funding created a systemic risk in non-Eurozone member countries because of potentially devastating chains of corporate defaults and the related currency risk for the economy as a whole. But no meltdown of financial systems has taken place; this is a fact that deserves scrutiny. However, there are worries about future economic growth.

3.1. Deep Financial Integration and NMSs

Huge externalities were produced by the financial crisis in terms of magnitude and the geographic area they cover. These externalities, which are rooted in big countries' policies, are not something new. One could make an analogy with the Fed's policy turnaround decades ago, when double digit inflation was brought down by a very severe tightening of US monetary policy. That move threw in disarray countries which had borrowed heavily externally by having been encouraged to do so by negative real interest rates (which followed the recycling of petrodollars). But the current crisis is much more profound, and its roots are embedded in the pattern of financial markets that have evolved in advanced economies during the past two decades.

EU specifics matter a lot in the way the financial crisis hit NMSs. Thus, there is a single market while national prerogatives remain important. Whereas monetary policy is unique in the Euro Area, the regulation and supervision of financial markets stay in national hands. Massive cross-border operations bring to the fore the issue of crisis management, burden sharing and resolution schemes. A convergence in the regulation and supervision does make sense (hence the need for common rulebooks), but this is not enough for an orderly functioning of the single market. In addition, the very functioning of the single financial market has to come to grips with its imperfections – which implies that macroeconomic policies have to be adjusted accordingly.

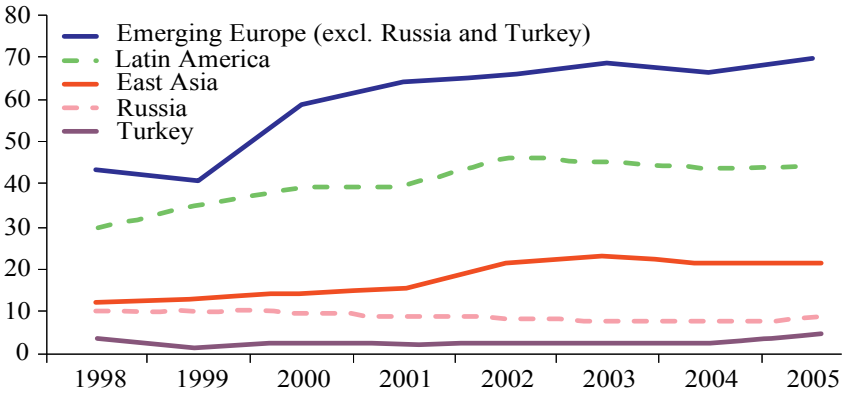
NMSs' varied circumstances matter too: size, in or outside the Euro Area, domination of local financial markets by foreign groups (Figure 1); high euroization (except the Czech Republic). From the euphoria of accession (for NMSs) and pretty high economic growth rates there is now gloom

because of deep recession and much worsened prospects for future economic growth. While Poland has not fallen into recession, that is an exception, its budget deficit, too, rose sharply. The massive presence of foreign banks on local financial markets has brought benefits, but it shows its less favorable side too; the credit crunch has added to the pains of an excessive reliance on capital imports. During the crisis, parent banks in the EU-15 had to face serious liquidity and capital pressures and at the time of acute market turbulences it was not at all clear how these parent banks would manage their subsidiaries and branches in NMSs[10]; this contributed to uncertainties regarding foreign subsidiaries[11].

Figure 1

Foreign bank ownership, 1998-2005

(Assets owned by foreign banks as a percent of banking system assets)



Source: Chart 6b from Berglöf et al. (2009)

Until the crisis hit a rapid expansion of credit (fuelled by foreign lenders) took place in most NMSs. In the currency board using countries, in Hungary, Romania, etc., rates of over 30-40 percent yearly were the norm while much of this credit was foreign currency denominated and taken by the private sector. Though public debts are low in most NMSs private debts had been growing quite rapidly in the years preceding this crisis and a large

[10] *In the heat of the crisis the subsidiaries had difficulties accessing to liquidity and the first bank rescue attempts by EU-15 governments were especially targeted at the home-country operations of the banking groups, thereby weakening the subsidiaries further.*

[11] *Later, however, the ECOFIN issued a declaration that packages must support subsidiaries as well.*

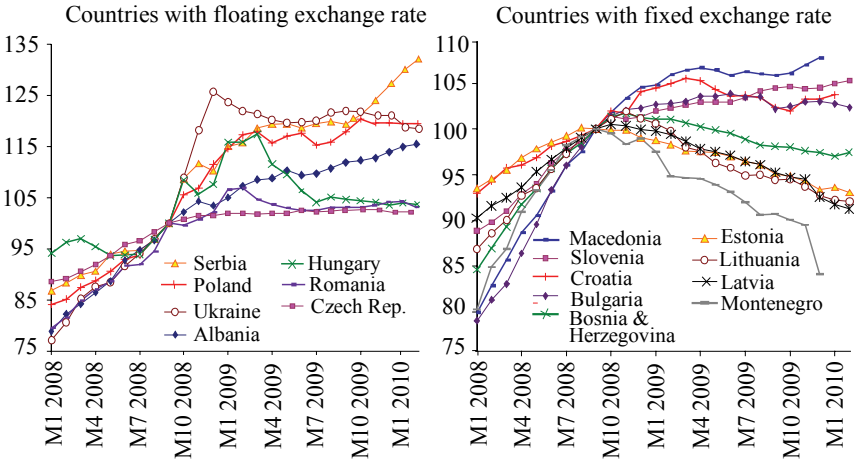
portion of them was short term. A credit crunch was unavoidable[12]. Like in Asia a decade ago the private debt and the sudden stop of funding created a systemic risk in non-Eurozone member countries because of potentially devastating chains of corporate defaults and the related currency risk for the economy as a whole. Therefore, government intervention became inevitable and, in several cases, external official assistance was asked for. Figure 2 shows the level of credit (measured in domestic currency unit) normalized as September 2008 = 100 (i.e. it starts from the date of the collapse of Lehman Brothers)[13]; net lending collapsed and quickly turned to negative soon after September 2008.

Figure 2

Credit to the private sector

(measured in domestic currency unit, September 2008 = 100)

January 2008 to February 2010



Note: The scale of the two panels is different.

Source: IMF International Financial Statistics; Becker et al. (p. 93).

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[12] *Ghosh (2009) studied this question for Hungary, Latvia and Poland for the 2008Q3-2009Q2 period. He finds evidence of a credit crunch in all these countries, though at different times: the crunch affected Poland in 2008Q4 only, Latvia in 2008Q4 and 2009Q1, and Hungary from 2008Q4 to 2009Q2. Ghosh concludes that "the initial credit crunch and credit supply problems is likely to have contributed to the decline in GDP and hence to the decline in credit demand subsequently"(p. 43). This suggests that the credit crunch was an important factor of recession during the current crisis. Other NMSs have quite likely faced similar developments.*

[13] *The fast increase of the market value of credit outstanding to the private sector immediately after the collapse of Lehman Brothers in some countries is largely due to valuation effects as the domestic currency value of foreign currency loans rose sharply as exchange rates depreciated.*

The current financial crisis underlines pitfalls of seeing financial integration as the main driver of real convergence. Financial markets are more volatile than others and are more likely to bring about a boom-bust dynamic. One can establish here an analogy between what happened in several NMSs and in Ireland and Spain, which are members of the EMU. Financial integration and the logic of the single market (in the EU) has predisposed NMSs to growing external imbalances – due primarily to their inferior economic development and, thence, perceived substantial positive yield differentials of investment opportunities. In the Baltic countries, in Bulgaria and Romania, much of this investment was of a speculative nature, or, was focused on non-tradables[14]. The rising indebtedness of households and firms, increasingly on short-term and foreign currency-denominated, should be seen in conjunction with weakened monetary policy and budget policy ineffectiveness as a means of restricting growing imbalances, and the opening of the capital account.

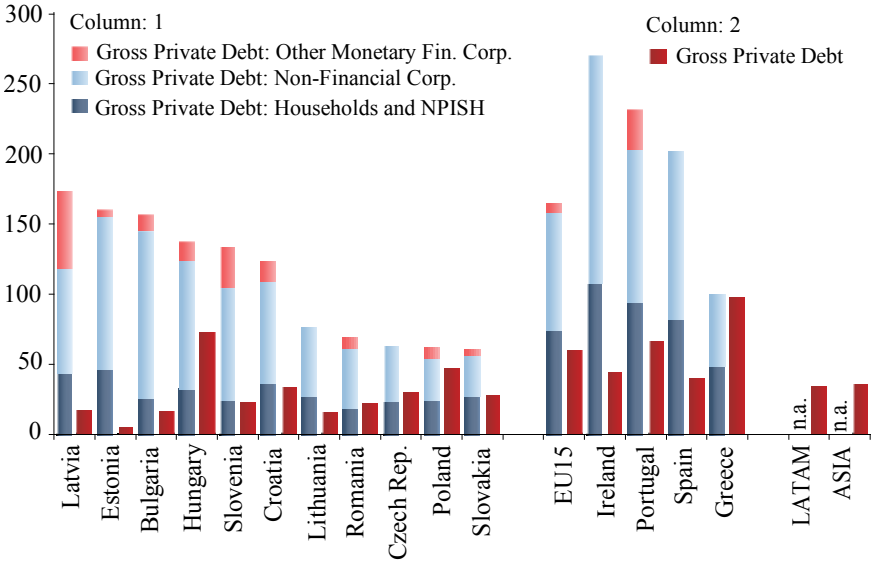
The reliance on massive capital imports is illustrated in Figure 3, which presents data on the 2008 public and private debts in the NMSs and several other EU and non-EU countries. Except Hungary, public debt in NMSs was not high by international standards. Total private debt was comparatively low in Poland, the Czech Republic and Slovakia, but high – taking into account relative development levels – in Latvia, Hungary, Bulgaria and Estonia.

[14] *See especially chapters 1 and 2 in "Whither economic growth in central and eastern Europe?"(Becker et al.).*

Figure 3

Gross private and public debt

(% of GDP), 2008

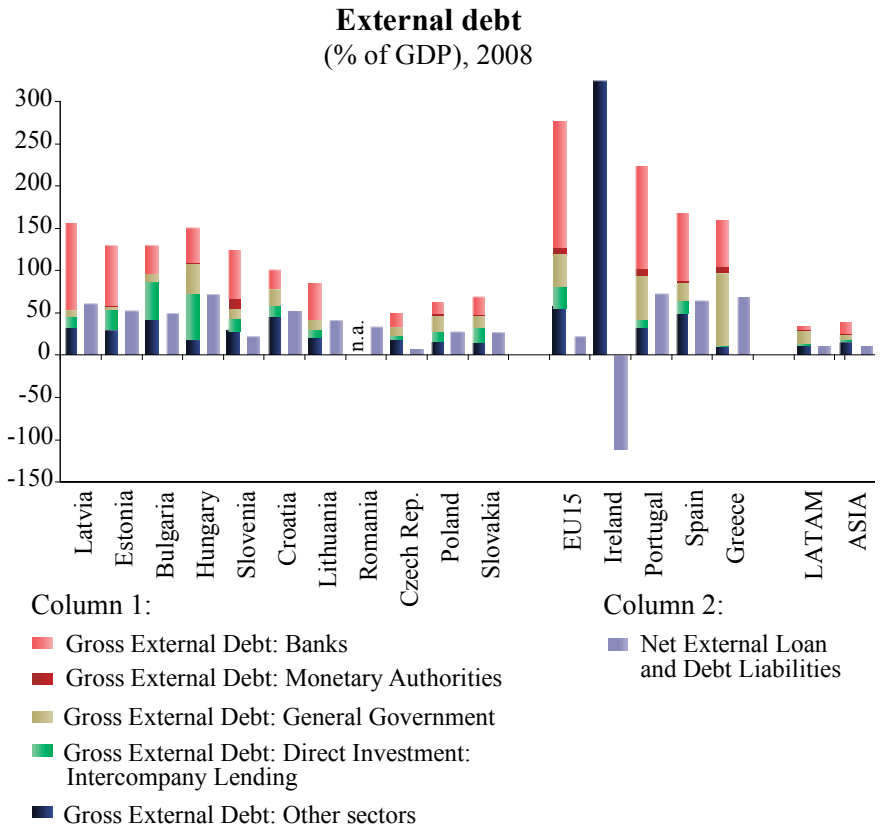


Source: Eurostat, IMF and Becker et al. (p.80)

This relatively high level of indebtedness proved to be a weakness in the crisis, especially when loans had been denominated in foreign currency. Figure 4 presents indicators of gross and net external liabilities for 2008. Differences within the region are evident: Central European countries had reasonably low liabilities, again with the exception of Hungary, while the Baltics and Croatia were heavily indebted externally, especially when compared to Asia and Latin America. So by common standards they could be considered vulnerable *ex ante*. Only three Central European countries – the Czech Republic, Poland, and Slovakia – avoided falling victim to rapidly rising domestic debt and only four (the same three plus Slovenia) avoided the external debt trap. All other countries experienced foreign-financed credit booms and the resulting accumulation of private (or, in the case of Hungary, private and public) debt. In these countries neither monetary and fiscal policies nor financial regulation were able to avoid the build-up of imbalances in a financially integrated environment.

Contagion, i.e. intra-regional spillovers, was also among the major features regarding NMSs during this crisis. As past financial crises show a crisis can spread through contagion even to less vulnerable economies.

Figure 4



Note: Ireland's total gross external debt is 915% of GDP, but for better readability of the figure, the vertical axis has a 300 cut-off. Apart from Croatia, data for Western Balkan countries are generally not available.

Source: Eurostat, IMF, and Becker et al. (p. 82)

3.2. Structure and a Magnified Monetary Policy Dilemma

Rapid growth of credit created bubbles in several NMSs and accentuated a monetary policy dilemma. This policy concern is not unusual in emerging economies, where there is relative capital scarcity, which would create good investment opportunities. Provided these countries enjoy

political, social and economic stability capital inflows would be commonsensical. Essentially, this dilemma refers to the inability of monetary policy to prevent a rise in the current account to possibly unsustainable levels irrespective of the stance of monetary policy; it was highlighted regarding the NMSs owing to their clustering in the vicinity of older member of the EU and their presumed increasing institutional and economic stability following market based reforms – which would have fuelled capital inflows. Even before joining the EU this policy dilemma was pretty obvious and debated[15] since these economies were considered to have very good prospects for durable high economic growth rates under the safety umbrella of the Union. This dilemma is organically linked with the functioning of liberalizing financial markets – when governments no longer have the capacity to restrict, potentially, overwhelming capital inflows. High interest rates would attract capital flows (short-term, in particular) which would appreciate the local currency ever more (for pegged currencies this would occur via real appreciation entailed by inflation differentials), which enlarge the current account deficit; the latter would also increase when low interest rates (aimed at discouraging capital inflows) would fuel domestic demand too much. Thence the acrobatics the policy makers in NMSs had to undertake. One should underline, in this regard, specific circumstances of NMS before and after accession: lower endowment of capital as against labor (capital/labor ratios are lower than in the rest of the EU), financial markets which are much thinner than in EU advanced economies and a gradual, but steady, process of capital account liberalization (which was a must for joining the EU). The latter process has led to intense euroization in most of these economies (except the Czech Republic), which has further crippled the potency of domestic monetary policy. It should be said that euroization was also stimulated by the commitment to adopt the euro after accession.

The capital account liberalization has undermined the monetary policy attempts at cooling down overheating economies. When central banks tried to tighten policy local banks lent in foreign currency at apparently much more convenient rates than for local currencies; the seemingly much more attractive borrowing in foreign currency was reinforced by declining

[15] *Lipschitz, Lane and Mourmouras.*

interest rates on world credit markets during the decade of the Great Moderation and the real appreciation of local currencies. Central banks were left with the option of raising reserve requirements as a very crude way of tightening liquidity.

Until the irruption of the financial crisis a substantial real appreciation did occur in all NMSs, which is not surprising in view of the heavy capital inflows which they received during this decade. In both currency board and managed floating arrangements domestic currencies went up substantially until 2008[16]. But fundamentals of this appreciation were precarious, particularly where current account deficits went into the double digit territory and their funding included much speculative capital. Analysts cautioned European transition economies as to the pitfalls of heavy capital inflows and underlined the virtues of prudent fiscal policies when monetary policy is deprived of efficacy. Nonetheless, like in the Asian experience of the last decade, the largest part of the current account deficits was caused, in not a few NMSs, by substantial private sector borrowing. Actually, the logic of the single market, with its ensuing liberalization of the capital account, is arguably, responsible for their rising current account deficits[17]. It should also be noted that most of the credit drive in the NMSs was the result, primarily, of foreign banks' expansion policies. This is why Baltic economies, Romania and Bulgaria, etc. should not be totally blamed for "home-made" vulnerabilities. Moreover, this expansion is the product of EU rules of the game. That fiscal policies in these economies were too pro-cyclical, in some countries (including Romania) at a time of high economic growth is a different matter for discussion.

The credit crunch, the loss of appetite for assuming risks and, especially, the capital flight seem to have modified the context drastically. Will policy makers revisit this monetary policy dilemma in the not too distant future? Several remarks deserve to be made in this respect:

- pressure toward depreciation is undermining financial stability where euroization is pretty high;

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[16] *See also Brender and Pisani.*

[17] *This is blatantly indicated by Bulgaria's experience; for years this country registered budget surpluses while its current account deficits went above 15 percent in recent years.*

- the financial stability concern is strengthened by foreign currency lending practiced by local banks;
- currency boards arrangements are under pressure in the Baltic economies, where devaluation has been avoided through very painful measures cuts of wages and pension in nominal terms);
- the financial crisis will have lingering effects, which would reduce the appetite for risk taking;
- big economies exert a crowding-out effect on global credit markets, that would keep the cost of credit high in the years to come (in spite of massive liquidity injections by central banks);
- local banks will be more cautious in their lending.

3.3. Cross-Border Bank Ownership and Financial Stability

The substantial exposure to NMSs of banking groups headquartered in older members of the EU has become a source of both home- and host-country concern. One reason is related to potential losses resulting from sharp economic downturns[18]. Another concern, from the host country perspective, is the fear of a possible disorderly disinvestment of these banking groups from NMSs countries. The increased exposure of a bank to a particular geographic area also raises microprudential regulation and supervision issues.

The distribution of responsibilities between home and host country and the inexistence of detailed burden-sharing arrangements in the event of a crisis is a major handicap for the single market under conditions of deep financial integration[19]. Under current arrangements, responsibility for the stability of financial institutions belongs to the supervisor of the country where they are headquartered whereas responsibility for the stability of financial systems belongs to the supervisor of the host country. So for a

[18] *This especially applies to countries like Austria, Belgium and Sweden whose banking sector exposure to the NMSs region is significant macroeconomically.*

[19] *As the de Larosiere report (2009) says, "The absence of a sound framework for crisis management and resolution (with sufficiently clear principles on burden sharing, customers' protection, assets transferability and winding up) complicates the introduction of an effective and efficient supervisory system to avoid financial crises in the first place" (p. 76).*

country whose financial system is dominated by foreign banks institutional supervision belongs to various foreign supervisors whereas the local supervisor has responsibility for the local financial system. To correct this far from ideal allocation of responsibilities, *ex ante* cooperation among supervisors takes place in committees and memoranda of understanding have been agreed upon to guide action in crisis situation, but incentives to share information are weak and provisions for cooperation in crisis management are little more than declarations of good intention. As to crisis resolution, there are no ex ante burden-sharing arrangements and the management of the near-bankruptcies of Fortis and Dexia in 2008 illustrated how much solutions are dependent on the ability of governments to quickly agree on *ad hoc* arrangements[20].

This crisis brings ammunition to the idea that a common rulebook, more integrated supervision, and a common framework for crisis resolution are all needed to match the degree of market integration in financial services. On the other hand, the burden-sharing issue prompts national governments and supervisors to think more along national lines, in view of their accountability toward national tax-payers. How this contradiction will be addressed and whether or not it will be resolved is crucial for the future of European integration.

Before this crisis, the lead supervisor concept (which was promoted by leading financial groups) was resisted by small countries on both political and financial stability grounds. These countries feared that a loss of final say in the deliberations of the supervisory colleges, because of their host-country status, would cripple their capacity to intervene during a crisis. Because foreign groups, that operate multi-jurisdictionally, could be tempted to reallocate capital in a way that might create havoc locally, what would seem optimal for a financial group might be quite suboptimal for a host country. If problems emerge there may be a divergence of interest with "the home supervisor wishing to see maximum transferability of liquidity to offset the emergence of group wide liquidity problems, while host supervisors wish to ring fence liquidity at national

[20] *Pisani-Ferry and Sapir (2010) provide an informative account of the management of the banking crisis in the EU.*

level precisely because they have growing concerns about the whole group position" (*The Turner Review*, 2009, p. 99). And, as the Turner Review stresses, even well capitalized local bank subsidiaries are likely to face liquidity crises if the whole group is seen to be in trouble. And in view of the powerful contagion effects which are likely to operate in the event of a crisis the trouble would extend to whole banking systems.

The De Larosière group report, followed by the decisions by the Ecofin meeting of 9th June (2009) to strengthen microprudential supervision via turning the Lamfalussy Level 3 Committees into "European Authorities" and the creation of the ESRB (European Systemic Risk Board) in charge of macroprudential supervision are important steps which have given an impetus to the creation of a European system of regulation and supervision.

3.4. Why no Meltdown Occurred

There are four main explanations behind the avoidance of a financial meltdown in the NMSs. Thus, prior to the crisis, the region's financial sectors were relatively sound, in comparison to, e.g., the Asian countries in the 1990s (see EBRD, 2009). Multilateral responses were undertaken. Medium-term financial assistance conditional on fiscal consolidation and on the implementation of comprehensive economic reform programmes has played a crucial role.[21] Other multilateral support includes the frontloading of disbursement from EU structural and cohesion funds as well as the expansion of European Investment Bank and European Bank for Reconstruction and Development activities. Next, a European Bank for Reconstruction and Development Co-ordination Initiative aiming at ensuring a rollover of the Western European bank's claims on the region

[21] *Programmes were led by the IMF, but for three EU countries (Hungary, Latvia and Romania) with EU participation both financially and substantively (as well as World Bank and EBRD assistance, and, for Latvia, bilateral assistance by seven European countries).*

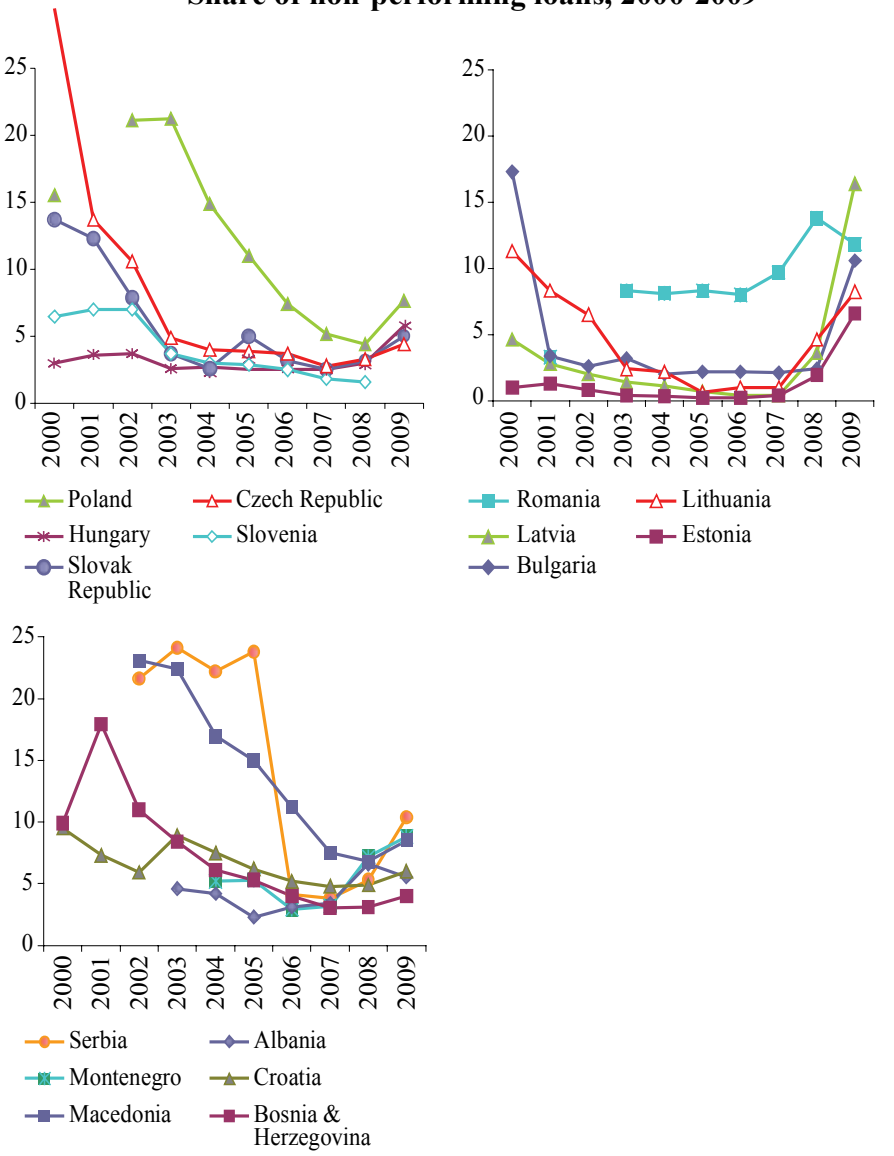
("The Vienna Initiative")[22], the ECB's support for parent banks, and the EU's political commitment that bank rescue packages would have to support subsidiaries, have all played important roles. And, not least, the swift rescue of parent banks by EU-15 governments has greatly contributed to stability. Without it, crisis management measures specifically targeted at the region would have not been effective. In the case of a failure of a parent bank that has an important market share in a NMS country, that country – even if it was a least vulnerable one – would have suffered much more.

Stress tests for banks were conducted. Yet the overall assessment of the ECB at the end of 2009 was cautious: "Looking ahead, the macro-economic outlook in the non-Euro Area EU countries has improved somewhat …, although there is still an unusually high degree of uncertainty. Rising unemployment, lower incomes and corporate defaults are likely to lead to a further increase in loan delinquencies and a further deterioration of bank loan portfolios." (ECB, 2009, p. 29.) The share of non-performing loans (Figure 5) has indeed been rising in many countries, though end-2009 levels were still well below, even in the worst hit countries, the levels reached in several Asian countries in the late 1990s (30-40 percent in some of these countries). Yet the share of non-performing loans is a lagging indicator. Also, as it does not include all rescheduled debt, it may not give a full picture of bad loans.

[22] *The "Vienna Initiative" is a multilateral effort to secure financial sector stability in those CESEE countries with substantial foreign bank ownership. It stipulates coordination between all relevant stakeholders, including international banking groups, home- and host-country authorities, international financial institutions and the EU, with the aim of developing a common understanding on key issues. It aims to secure the commitments by both international banking groups and home- and host-country authorities, and to coordinate a fair burden sharing (see Box 1.4 in EBRD, 2009).*

Figure 5

Share of non-performing loans, 2000-2009



Note: Data refer to end of the year.

Source: IMF GFSR October 2009, EBRD, Berglöf et al. (2009), and Becker et al. (p. 87).

4. Regaining Financial Stability

Regaining financial stability must target both *structure* and policies. *Structure* refers to its configuration, in the EU and globally. The reform of the governance in the EU and the reform of the regulation and supervision of financial markets are essential for improving the functioning of EU structure. In the EU national policies depend on EU institutional and policy arrangements. Likewise, national policies would have to consider the effects of the current crisis, the external environment and the rising sovereign debt problem.

4.1. EU Arrangements and National Policy Options

This paper puts emphasis on *structure* in understanding the roots of this crisis and the tension in the EU (EMU). Such a perspective reinforces the rationale for a reform of EU economic governance; since without it a breakdown of the EMU is to envisage, with effects on the existence of the EU itself. As the current crisis indicates it is not only fiscal rules and their compliance with that a proper functioning of the EMU hinges on. Growing imbalances stemming from the dynamics of private sector saving and investment flows have also played a major role in triggering the sovereign debt crisis in the EMU. In this context the overexpansion of financial institutions and their investment behaviour is to be highlighted. Therefore, a reform of governance has to address, apart from fiscal rules and compliance with them, issues such as imbalances in current accounts, wage dynamics and, not least, how to strengthen surveillance of member countries in the working out and reporting of economic data. How to foster real economic convergence is another major policy challenge since the EMU does not enjoy sufficient optimality as a currency area. It appears that the policy proposals which are put forward in Brussels (either by the special task force led by President Herman van Rompuy, or by the Economic Commission) address less the issue of dealing with insufficient real convergence and ensuing disequilibria which, sooner or later, strain the Union. A threat for the EMU is a growing cleavage between its northern and its southern tiers, with the latter one being held in vicious circles, incapable of overcoming the impact of austerity measures (which are asked for by fiscal consolidation). In this context

resolution schemes, including orderly restructuring of sovereign debts is to be highlighted.[23] But would these schemes help achieve convergence? I doubt it. Moreover, the involvement of the private sector in these schemes is quite tricky under the current circumstances, though it does make a lot of sense in order to restore the logic of properly functioning markets – which implies that those who take risks bear both rewards and losses. For it would, quite likely, raise budget deficit funding premia for some EMU states, which are already under the threat of sovereign debt crisis. Not least, in the structure of EU governance reform, the reform of the regulation and supervision of financial markets – with its European (EU) bodies – and the construction of burden-sharing arrangements are to be underlined.

NMSs have a stake in EU governance reform since they cannot escape the impact of EU wide externalities, contagion effects. For even countries which were quite prudent budget policy-wise and limited their external disequilibria (ex: Czech Republic, Poland, etc.) were caught into the crisis maelstrom. In addition, NMSs are bound to join the EMU according to accession treaties. This crisis has taught them lessons regarding linkages between overall economic policy and financial stability. In this context a rethinking of monetary policy is in the cards, too. For most NMSs in which the private sector has become highly indebted a process of deleveraging is underway. A crucial issue for these countries is how to avoid that deleveraging weigh too much on growth in the years to come. In a few Central European countries with reasonably low private sector indebtedness controlling the expansion of credit may come to the fore earlier than elsewhere. But in all countries, liquidity and perhaps solvency risks may show up again should market sentiment worsen again. Last but not least, crisis resolution remains an issue in countries with significant foreign bank ownership.

[23] *What Jean Pisani-Ferry calls a "statutory European Debt Resolution Mechanism" (2010). The task force under Herman van Rompuy, the president of the European Council, does address this issue as well.*

Rethinking Monetary Policy

How would this crisis change the practice of monetary policy ("inflation targeting", where it is practiced) owing to the new focus on financial stability? One problem regards the control of monetary aggregates when credit expansion is very intense and financial innovation loosens the relationship between the monetary base, M0, and broad money, M2. Over the last three decades, the relationship between M0, over which a central bank has control, and M2, over which a central bank does not have control, has weakened considerably. This has made the task of implementing monetary policy by a central bank more difficult. In hindsight, the increase in M2 in a global low inflation environment was made possible with increased leverage by financial institutions – helped by the development of complex financial product and the creation of a parallel architecture to the banking system (the so-called shadow banking system). The size of the latter, which was basically non-regulated, has been constantly increasing over the last 10-15 years. This evolution brings to memory the Gurley-Shaw report of decades ago, which highlighted the imprecision in distinguishing between credit and money; and, consequently, major hurdles for effective monetary policy. Financial stability, by being added quite explicitly to the objective of price stability, will complicates the conduct of monetary policy.

Credit Resumption

Government policies can impact on credit creation in several ways:

- credible macroeconomic policies (including the consolidation of public finances and the reduction in the level and volatility of inflation, where these are needed) so that markets do not ask for excessive risk premia in lending to local businesses;
- macroeconomic adjustment in countries with overvalued exchange rate and high private debt. Both internal adjustment and currency devaluation would increase the debt/income ratio further, but in the actually adopted first scenario the adjustment is slower, economic recovery is also slower, and banks do not need to rely on government support. An adjustment in macroeconomic policy that may include devaluation would lead to immediate heavy losses to the banking

sector and government intervention would be needed. This would ask for debt resolution schemes, and the government may assume part of the bad loans (i.e. provide subsidy to banks and/or the non-financial private sector). But, any subsidy will likely raise serious moral hazard and distributional issues and NMSs governments have very limited resources for such an undertaking;

- fostering credit through public banks or through domestic development banks. Governments or central banks may promote lending this way. The use of this channel would find a boundary in the scarce resources NMS governments can muster to this end;
- creating a public institution ("bad bank") to deal with dubious credits and fostering banks to sell their dubious credits to this institution. But cleaning up banks would not automatically raise banks' propensity to lend, and there are questions marks about whether such an institution could be set up at a host country level.

The EU can support these actions by a high use of EU structural and cohesion funds to bolster economic growth and enhance the crowding in of commercial lending.

Access to Liquidity and Solvency Problems

There are several means to enhance access to liquidity and mitigate solvency threats at a supra-national level, and indeed many of possible remedies have been implemented during the crisis: rules on convergence of deposit guarantees, which should prevent beggar your neighbour policies; medium-term financial facilities[24]; other IFIs credit lines and investments. Two avenues to improve the EU's support to NMSs deserve discussion: swap lines between the ECB and central banks of non-Euro Area countries; a broadening of ECB range of accepted collaterals to national currency denominated bonds issues by non-euro NMSs countries. These two measures, which would have helped to ward off euro liquidity shortages, were considered but not implemented at the height of the crisis. They should apply, if conditions require them again, at least to EU members, but the ECB may also consider EU candidate and

[24] *IMF resources were tripled from USD 250 billion to USD 750 billion, and the EU's medium-term financial facility was also upgraded from EUR 12 billion to EUR 50 billion.*

potential candidate countries, with appropriate provisions to risk considerations, of course)[25]. Finally, although a rise in capital requirements is necessary, an immediate implementation of Basel III would be counterproductive at a time when economies are still fighting to get out of recession and credit markets are functioning very precariously. The phasing-in should rather be gradual.

Crisis Resolution

Since NMSs' financial markets are dominated by foreign groups, the home-country authorities have to work very closely with host-country authorities should a case of bank distress appear. It would be important for governors of the central banks (representing the main regulatory/ supervisory bodies) in the region to stay in close contact and coordinate their measures. To this end, it would be useful to set up a Financial Stability Initiative (FSI), which should focus on the systemic problems of the non-Eurozone countries and report back to the ESRB and the EFC of the Council. Such a body would demand close cooperation among supervisors and central banks in the region and it would broaden the concerns which have motivated the establishment of the Vienna Initiative. As a matter of fact, the de Larosiere report (2009) recommends that special issues and events should prompt the "Authorities" to create and lead groups of national supervisors, which should tackle those issues. When arguing in favour of creating such groups the de Larosiere report refers, in particular, to "bankruptcy of a third country systemic group" (p. 54).

Preventing Future Credit Booms

The most frequently considered instruments are: counter-cyclical capital and reserve requirements; dynamic provisioning against expected losses; limits on leverage and maturity mismatches; discretionary macro-prudential measures under the guidance of newly created macro-prudential supervision bodies such as the European ESRB. The difficulty

[25] *The indication by the ECB in March 2010 that it wishes to review its collateral policy (which was arguably prompted by the escalation of the Greek crisis, because under the previously announced return to pre-crisis collateral rules Greek government bonds would have not been eligible for ECB refinancing) provides an excellent opportunity to consider extending the ECB's regional responsibility to the CESEE region.*

for the NMSs is that this toolbox mostly applies to countries where credit is in the hands of national banks or autonomous local subsidiaries of foreign banks. It is not likely to be effective in countries where credit is mostly in the hands of foreign bank branches or lending can be outsourced to foreign entities of the banking group (i.e. the parent bank or a subsidiary in another country). Coordination among supervisors can be a response and should continue being developed but calling for coordination is no solution when institutions participating in it have different, possibly conflicting mandates and incentives. Structural measures to improve the monitoring of financial stability in host countries include: turning foreign bank branches into fully-fledged subsidiaries; making foreign-owned subsidiaries "subject to the same capital requirement calculations, and hold that in domestic assets, as the domestic banks"[26]; imposing restrictions on the setting up of new bank subsidiaries in certain areas[27].

The outsourcing of lending to foreign entities of the banking group does obscure the scope of regulatory measures. Therefore, a range of additional means have to be considered both at the national and EU level. At the national level:

- tax policy should be actively used (e.g. abolishment of deductibility of interest payments in tax declaration and other tax incentives to the housing sector where they exist; introduction or increase in property taxes);
- measures to encourage domestic saving, such as creating schemes, perhaps with tax incentives, to promote long-horizon saving would also improve the loan/deposit ratio and thereby limit the potential to unhealthy credit booms and the vulnerability of a country in the wake of a crisis.

At the EU level:

- use the college of supervisors for coming to a common understanding with the home country supervisors regarding a proper conduct of foreign banks' external lending operations;

[26] *Brunnermeier et al., p. 65.*

[27] *"The EU home country authorities should limit the acquisition of subsidiaries in other countries, where appropriate" EFC (2009), p. 14.*

- the home – and host-country supervisors should compare the exposure of various banking groups towards a host country as it is illustrated by their consolidated balance sheets as against those of the subsidiaries in the host country; they should also assess the attempts to optimize the use of liquidity on a regional basis, which may harm local currencies;
- the ESRB and the EFC should address this issue and ask the home country supervisor to "internalize' in its policy requirements the host country's risk judgment and worries regarding the expansion of credit and the "optimization" of the use of excess liquidity.

Capital controls have resurfaced after the Asian crisis and are increasingly talked about nowadays. There are also studies (by the IMF too[28]), which show that capital controls, if used smartly, can help macroeconomic policy in small open economies, as financial markets can be inherently unstable. Thus, contrary to the common perception that capital controls can be easily evaded, they do affect the cross-market premium in a sustainable way[29,30]. NMSs cannot rely on capital controls as the single market prohibits such measures. But in candidate countries outside the EU capital controls could be considered. It may be that renewed capital inflows in and the relative ineffectiveness of regulatory measures would force governments to implement measures as being applied in other emerging economies, where there is an attempt to restrict speculative capital inflows by taxing currency, equity, debt and real estate transactions[31]. Capital controls that are now being proposed are more in the spirit of "macroprudential regulation, to be taken in response to capital flows surges that have the potential to create bubbles in asset

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[28] *Ostry et al.*

[29] *Controls on capital inflows put downward pressure on domestic markets relative to international ones, generating a negative premium. The opposite happens with controls on capital outflows. This signals the inability of market participants to engage in perfect arbitrage (see Yeyati et al.).*

[30] *Rodrik 's opinion: "Prudential controls on capital flows make a lot of sense. Short-term flows not only wreak havoc with domestic macroeconomic management, but they also aggravate adverse exchange-rate movements. In particular, "hot" capital inflows make it difficult for financially open economies to maintain a competitive currency, depriving them of what is in effect the most potent form of industrial policy imaginable".*

[31] *In Brazil a 2 percent surcharge was imposed on purchases by foreigners of equity and debt. Russia, India, Thailand, have also resorted to such restrictions.*

prices, including exchange rates" (Subramanian)[32]. For current EU members the risk of destabilizing capital inflows leading to credit bubbles has to be addressed through other means, which may include action on the demand for credit. Regulatory and tax instruments can, for example, be used to tame mortgage credit when deemed excessive from a macro-prudential point of view. Finally, the issue of the denomination of lending, i.e. whether in domestic or foreign currency, also deserves important considerations.

4.2. Structure: Taming Financial Markets is a Must

A return to the initial logic of Bretton Woods is needed in order to preserve an open global system. The current crisis has reinforced one of Keynes' intellectual legacies, which was enshrined in the Bretton Woods arrangements – namely, that highly volatile capital flows are inimical to trade and growth and that financial markets are inherently unstable. As a matter of fact restraining financial flows is a way to solve the 'financial policy trilemma" (*the impossible trinity*); if free trade and relative stability of exchange rates are to support durable economic growth capital flows need to be managed.

For decades now a mantra has been heard worldwide: that not much can be done, in this regard, because markets would punish a government. But aren't they, aside from technological drivers, also the product of human beings' decisions to set rules for finance, trade and investment? To claim that nothing can be done about financial flows, when they bring about misery, is unconvincing. Whereas cycles in the motion of markets are to be expected deep crises can be averted. The bottom line is that well functioning markets, which serve most citizens, are not synonymous with deregulated and un-supervised markets!

The financial crisis cannot be explained only by years of cheap money and growing imbalances in the world economy. Mistakes in macro-economic policy were accompanied by gross abuses of securitisation, abnormally skewed incentives and a loss of moral compass, inadequate risk-assessment

[32] *Subramanian (2009) also notices that, in contrast, the initial Tobin tax and the Turner variant would be structural, in the sense that would tax all financial transactions irrespective of the state of the macroeconomic cycle.*

models and failures to check for systemic risks, a breakdown of due diligence and an almost blind belief in the self-regulating virtues of markets. Harmonization of rules is not a sufficient response to the crisis, since the very content of regulations and supervision needs change. This is what comes out prominently from the de Larosiere[33] report and the Turner report (in the UK), from documents of the European Parliament[34] and directives of the EC. A reformed regulatory and supervisory framework would observe certain basic principles:

- all financial entities (including hedge funds and private equity funds[35] should be regulated and leverage be constrained);
- derivative markets should be regulated (products be standardized/ simplified and clearing houses be used);
- remuneration be tied to long-term performance and be constrained;
- banks be better capitalized (both the amount and quality of capital, primarily of tier 1) and capital adequacy ratios set in light of systemic risks;
- pro-cyclicality be avoided in macro-economic policymaking and the way banks modify their capital adequacy ratios;
- banks asked to hold equity shares of securitized loans;
- accounting rules should not fuel pro-cyclicality and be standardized globally[36];

[33] *"Report" by The High Level Group on Financial Supervision in the EU, chaired by Jacques de Larosiere, Brussels, 25 February 2009.*

[34] *See also Ieke van den Burg and Daniel Daianu (2008).*

[35] *Hedge funds and private equity funds contribute to higher systemic risks. The claim that it is the money of investors which is at stake is very little of the whole story. High leverage and focus on short term gains increase overshooting and the speculative nature of such operations enhances instability.*

[36] *There are still major differences between the standards used by EU countries and those used by the US.*

- dealing with the "too big to fail" and "systemically important" entities: the splitting of big groups[37] and a return to a sort of Glass-Steagall[38] legislation are sensible options;
- regulatory arbitrage (including tax havens) be avoided;
- use of capital controls for macroprudential reasons (these are not permitted in the EU);
- limiting volatility in exchange rates and commodity markets (buffer stocks, curbing naked short-selling);
- the protection of consumers of financial services;
- transaction taxes as a means to downsize an over-expanded financial sector, diminish negative externalities, and create fiscal revenues[39];
- and, not least, a rethinking of systemic risks[40].

Vested interests have a long arm and try to influence regulations and supervision. Already the financial industry is fighting back, by arguing against "regulation overkill". But vested interests must be strongly resisted. In the real world, we need regulators and supervisors who have a good

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[37] *Market power (concentration) leads to market abuse and, in banking, as this crisis has glaringly proved, to heightened systemic risks by the formation of conglomerates that have engaged in the manufacturing of synthetic products, used high leverage and very risky investment strategies. Ironically, "the oligopolistic banking system that has emerged from this crisis is riskier than the one that went into it" (Wolf, "The Challenges of Managing our Post-crisis World", Financial Times, 30 December, 2009, p. 9). Those who claim that size does not matter use a self-serving argument. The British authorities have already taken steps in this field by asking several banks to divest from some of their business components.*

[38] *However complicated such an undertaking would be it does make sense. "Casino-type" banking has to be curtailed as much as possible and "proprietary trading" operations of banks be severely restrained.*

[39] *There are two basic issues here: a) systemic risk, which cannot be divorced from size; and b) allocation of resources and distribution of profits. The intake from such a tax would help the IFIs cope with effects of crises in emerging economies, poor economies in general. Proceeds from such a tax could also help the EU set up a stabilization funds for dealing with crises.*

[40] *For an overview of the current thinking on systemic risks see "The Concept of Systemic Risk", in Financial Stability Review, European Central Bank, December 2009, pp. 134-142. See also "Global Financial Stability Report. Responding to the Financial Crisis and Measuring Systemic Risks", IMF, April 2009, particularly chapter 3.*

understanding of how financial markets function[41]. They should never underestimate systemic risks; they should always be alert to financial stability. Strains and crises cannot be entirely avoided – but we can limit the damage they cause. Next two issues are looked upon: whether there is danger of regulation overkill; and the "too big to fail" problem.

4.2.1. The Danger of Overregulation is Overblown

Over time, as the financial crisis has deepened, it has demolished long-held tenets, forcing even zealous advocates of light-touch regulation and self-regulation to admit fundamental flaws in such regimes.[42] But despite this seismic change and despite the evidence of a financial system in need of thorough reform, a line of reasoning has persisted, whose intent appears to be to resist reform and regulation of the financial industry. Consider the debate on both sides of the Atlantic about whether and how much derivatives – over-the-counter (OTC) products – should be regulated.

The financial industry is fighting back, arguing that such regulations would stifle innovation and prompt companies to re-locate where regulation is lighter. But not all financial innovation is benign. Likewise, many financial products which were created by using mathematical models have proved to be highly unreliable. Nor is the risk of re-location convincing. Financial institutions' reputations are tarnished; avoiding regulation limits the chances of restoring some of that reputation. And, secondly, regulation will follow financial institutions, because most countries increasingly realize that reform needs to be coordinated internationally. Principally, though, the industry is arguing that more regulation would cut its profits, which might sound a good argument at a time of the pressure for recapitalisation. But that argument is short-

[41] *Beatrice Weder says that reforms should address the flawed incentives in the regulatory and supervision systems, including low pay ("The dog that did not bark", The Economist, 3 October, 2009, p.88). By emphasizing the neglect of systemic risks Gillian Tett talks about a "silo curse" (Financial Times, 6 October, 2009). The experience of Spain and Canada, where regulators and supervision have done a much better job than in other advanced economies, is quite indicative in this regard.*

[42] *Alan Greenspan, the long-time head of the US Federal Reserve told the US Congress in October 2008, a "risk-management paradigm held sway for decades. The whole intellectual edifice, however, collapsed in the summer of last year [2007]".*

sighted, self-serving. It is short-sighted, because what is at stake is the prevention of similarly acute crises in the future. It is self-serving, because one industry's profits should not be protected at the expense of the rest of the economy. And it is unjustified, because over the past two decades the financial industry's profit share of the world's gross domestic product (GDP) has increased four or five fold. The argument also avoids the moral dimension of the debate on regulation and reform of the industry. How can governments sell painful policies that clobber public budgets to citizens while allowing those that caused the mess to preserve their old ways of doing business and get big bonuses again while their operations are massively subsidized by governments? How can they do so when big financial institutions, deemed “too big to fail', have been kept afloat with public money?

The current crisis is no ordinary recession, and its effects will be long-lasting. In the years to come, a phrase frequently used in the poor world – “distributional struggle” – will probably begin to gain greater traction in advanced economies as well. The past couple of decades has revealed a growing income inequality in the US and Europe. This income discrepancy will strain public policy and welfare states and cause political tensions. At this point, “over-reforming” is, arguably, not the big threat. What would be fatal would be failure by policymakers to learn from this huge debacle.

4.2.2. If Banks are Too Big to Fail, then Split Them up

The demise of investment bank Lehman Brothers is seen by many analysts as the event that brought the confidence crisis in world financial markets to a head. Although the financial crisis erupted almost a year earlier, the demise of Lehman Brothers seems to have been the tipping point into a worldwide recession. Lehman Brothers did not receive government help but many other large financial institutions have. One of the key issues in the debate on government bail-outs is whether (and why) the entities that are given public money pose any significant systemic risk. When the insurance group AIG was bailed out with a staggering amount of US taxpayer's money, the argument was clear: the scope and depth of its operations and its links to financial clients around

the world made rescue a must; non-intervention was judged potentially fatal to the financial system as a whole. In a way, the action to rescue AIG replicated, on a much grander scale, what the Federal Reserve did in 1998 when it helped, indirectly, LTCM, by summoning five investment banks to participate in a joint aid initiative.

The phrase "too big to fail" has frequently been used in terms of bail-outs. If the size, or influence/reach, of financial groups can become an overwhelming problem and policy issue, then it has to be dealt with. Anti-trust legislation used to be enacted by governments, in the US and in Europe, in order to combat monopolistic behavior that undermined competition and extracted undue rents[43].

In finance, waves of deregulation over recent decades increased the scope for the formation of very large groups, with operations covering the entire gamut of financial services. Globalisation of markets and new information and communication technologies (which enhanced global trading in real time) stimulated the emergence of genuinely global players – one of which was AIG. Some of these groups have cornered the market – as demonstrated by the manifold rise in the share of world gross domestic product accounted for by the financial industry's profits in the past couple of decades.

But a fundamental challenge is that reckless behaviour by financial giants, accompanied by the intense degree of interconnection among them, has epitomised systemic risk. Such groups are an obvious flaw in the financial system, to the extent that governments are forced to step in when there is need to avoid financial meltdown.

The current efforts to overhaul the regulatory and supervisory systems of financial industries in industrial economies should firmly address the size of financial groups. If they are too big to be left to die, one has to find an effective response to two problems: the moral hazard (not to encourage bad practices by eliminating failure); and reducing, as much as possible, the burden on the public purse in cases of government action. When the size of some players holds the system hostage, it is arguably not enough

[43] *Both Standard Oil and AT&T were split up in this way. There were also waves of divestments in certain industries when it became clear that conglomerates and oversized groups did not necessarily bring about better performance.*

simply to increase transparency, cap leverage, improve capital adequacy ratios, avoid pro-cyclical behaviour, impose new remuneration schemes, try to regulate conflicts of interest and improve quantitative methods. Splitting large financial groups, however, does, arguably, make sense under such circumstances. When CEOs of large banking groups argue that not size is the problem – but interconnectedness – it sounds very much like a self-serving argument. It would be interesting to see one major, global financial institution, which has engaged in merchandizing only simple, not toxic, financial products. The big groups have been very much behind the financial innovation which has gone astray during the past decade. The irony is that the current crisis has induced a spate of takeovers which run counter to this policy. In addition, in Europe the burden-sharing of rescue is more than murky while the supervision and regulation of banking sectors is fragmented along national lines. This state of affairs may discourage the drive by many banks to continue to expand internationally; they may even retreat and become more parochial. But overall, this crisis is likely to lead to a consolidation in finance, the perpetuation of "too big to fail" syndrome (be it on a local or national scale), which might recreate the systemic risks we are trying to diminish via regulatory and supervision reforms. This situation is a further reason to resort to anti-trust law, or very strict regulation of finance if banking should be deemed a special industry of a "public utility" nature.

Some might ask if the US and Europe can afford to split up large financial groups at a time when Asian financial entities appear to be gaining a competitive edge in the wake of the current crisis. This motivation has to be seen in relation to the regulatory arbitrage argument. Both these issues need to be taken into account. But it would be wrong to jeopardize the functioning of whole economies for corporate benefits which are, in the end, uncertain. In addition, why would Asian banks themselves ignore the lessons of the current financial crisis, which has worldwide implications? And why should the G20 and the Financial Stability Board not help major countries see eye-to-eye in this regard?

5. Issues to Ponder on

Disentangling private from public debt has become a huge, overwhelming issue in the EU in view of its deep financial integration. As a matter of fact, the rescue program for Greece, which was worked out by EU leaders in the Spring of 2010, was motivated, not least, by the big exposure French and German banks have to Greek sovereign debt. Private sector debts are making up enormous contingent liabilities on public sector debts when bankruptcies are not tolerated. This is one of the big revelations entailed by the current crisis. And the inability to disentangle the myriad of intertwined debts will impact, negatively, on fiscal policies for years to come. Even now this feature of deep financial integration seems to be under-estimated. What is even worse is that bank consolidation would increase moral hazard in this industry and would preserve the hostage relationship governments budgets are held into.

The current crisis has refocused attention on public budgets owing to big jumps in their size registered in countries where large financial entities were threatened by collapse and state intervention (rescues) did take place. But the fiscal deficits are no less important in economies where the economic downturn has been significant and a permanent fall of potential output has been entailed – where the crisis blew up bubbles and underlined years of resource misallocation. A country may have, relatively, a low public debt, but if a newly revealed structural deficit is pretty high its dent service can skyrocket. Unless fiscal consolidation is put into motion a solvency crisis looms at the horizon. Related to this issue is the relevance of economic indicators. Fiscal deficit may be low for a while, until they explode when "hidden" imbalances come into the open. In the EMU current account imbalances among member states were not paid enough attention until this crisis hit. Not a few loved to use an analogy with US member states – which is quite irrelevant in view of the totally different fiscal arrangements in the EU as against the US. And to what extent the intended reform of economic governance in the EU would change things dramatically is to be seen. Fiscal rules, surveillance and peer pressure may not be enough for strengthening the cohesion of the EMU, of the EU in general. An additional handicap in the EU is linked with the political reality that tax-payers are, ultimately, national.

Can “common goods” (including the euro) be protected unless “common resources” are more substantial? Can resolution schemes and orderly restructuring schemes of sovereign debts be devised so that they compensate the smallness of the EU budget and complexity of the EU decision making process?

Would a deflationary bias in the conduct of monetary policy appear in view of the willingness to prick bubbles in their infancy? On the other hand, would’ n’ it, by fostering less instability, support long-term growth? This is also an issue which demands more thorough answers. In a way, answering this question is analogous to deciding on a proper speed of implementing Basel III: for a too fast implementation could stifle recovery; on the other hand, a too slow implementation would create prerequisites for a new crisis.

Debt deflation is a policy risk. If this would occur in several major economies a relapse into a financial crisis could ensue, with staggering effects. A “japanization” of these economies, namely a long period of stagnation induced by liquidity trap and low consumption, would take place. Financial stability would be once more at the top of public agenda in view of the steadily worsening bank balance-sheets. Public debts may be burdened again provided an exit via deliberate creation of inflation is considered not an option.

Does size matter for judging fiscal risk? It appears that it does. Large economies are, seemingly, considered to have a bigger capacity to resists shocks; they are, potentially, more resilient. Resilience (ability to withstand external and internal shocks) will increasingly be a principal policy aim.

When it comes to judging structure globally the emergence of new economic powers and the dynamic of competition, via non-zero sum games, get to the forefront. Because unwinding global imbalances, when zero-sum games are frequent, is quite painful. This has to be seen in conjunction with a shifting geopolitical reality. The latter is visible also in the functioning of the G20, in the functioning of the IFIs. Bank competition should be seen through geopolitical lenses too. And if this is so prospects for a reform of regulation and supervision would be influenced.

What would be the impact of new technology for circumventing rules (ex: high-frequency trading)? Regulators and supervisors need to take it into account as well, when thinking about financial stability. The latter can be linked also with the capacity of economy to withstand effects of natural disasters, with social strain. Demographics, too, plays in a role when it perturbs inter-generational balance and, consequently, fiscal equilibrium.

Overall, the years to come will quite likely be accompanied by an increasingly uncertain environment; complexity will also be on the rise. These circumstances would advocate for a more simple financial intermediation system, for banking getting back to its roots. If this will not happen, more fragmentation is to be expected, with societies turning, probably, more inward-looking. This will have profound implications for the global system. It may be that, by taking into account the lessons of financial crises and the need to lend to economies more resilience, that there is an optimal size of openness (trade and finance-wise). This implies that firms need to think globally and operate selectively (be close to home) as a means for mitigating risks. It may also be the case that, over the longer run, we will end up with a three blocs-based world financial system as a means to maintain a relatively open global system.

References

Bank of England — *The role of macroprudential policy*, Discussion Paper, 2009.

Becker, T., Daianu, D., Darvas, Z. et. al. — *Whither Growth in Central and Eastern Europe? Policy Lessons for an Integrated World*, Bruegel Bluprint Series, 2010.

Brender, A., Pisani, F. — *The Crisis of Global Finance and its Collapse*, Paris, 2009.

Borio, C. — *Ten Propositions about Liquidity Crises*, BIS Working Papers, No. 293, November 2009.

Brunnermeier, M.K, Crockett, A., Goodhart Ch. A., Persaud, A., Shin, H.S. — *The Fundamental Principles of Financial Regulation*, 11th Geneva Report on the World Economy, preliminary draft, 2009.

Caballero, R., Hoshi, T., Kashyap, A. — *Zombie lending and depressed restructuring in Japan*, NBER Working Paper, No. 12129, 2006.

Darvas, Z. — *The EU's role in supporting crisis-hit countries in Central and Eastern Europe*, Bruegel Policy Contribution 2009/17, 2009b.

Diamond, P.A., Mirrlees, J.A. — *Optimal Taxation and Public Production I: Production Efficiency and II: Tax Rules,* American Economic Review, 61: 8-27 and 261-278, 1971.

Eichengreen, B. — *Globalizing Capital,* Princeton University Press, 1996.

*** — Decisions of the Ecofin Meeting of 9 June 2009.

European Central Bank — *Financial Stability Review,* December 2009.

Ghosh, S. *Credit Crunch or Weak Demand for Credit?*, The World Bank EU10 Regular Economic Report, pp. 37-44, October 2009.

Haldane, A. *Rethinking The Financial Network*, Speech at the Financial Student Association in Amsterdam, April 2009. http://www.bankofengland.co.uk/publications/speeches386.pdf

International Monetary Fund *Global Financial Stability Report, Responding to the Financial Crisis and Measuring Systemic Risks,* IMF, Washington DC, April 2009.

Johnson, S., Kwak, J. *13 Bankers. The Wall Street Takeover and the Next Financial Meltdown,* New York: Pantheon Books, 2010.

Lamfalussy, A. *Financial Crises in Emerging Economies,* New Haven: Yale University Press, 2000.

Lipschitz, L., Lane, T., Mourmouras, A. *The Tosowsky Dilemma. Capital Surges in Transition Countries*, Finance and Development, September, 2002.

Minsky, H. P. *Stabilizing an Unstable Economy*, New York: McGraw-Hill (first edition published in 1986 by Yale University Press), 2008.

EFC *Lessons from the financial crisis for European financial stability arrangements*, EFC High-Level Working Group on Cross-Border Financial Stability Arrangements, 18 June 2009.

Ostry, J. D., Ghosh, A., Habermeier, K., Chamon, M., Qureshi, M. S., Reinhardt, D.B.S. *Capital Inflows: The Role of Controls,* IMF Staff Position Note, IMF, Washington DC, 19 February 2010.

Perroux, F. *Independence de la Nation*, Paris, Montaigne, 1969.

Piątkowski, M. *EU-10 Banking Sector Credit Losses*, The World Bank EU10 Regular Economic Report, pp. 45-53, 2009.

Pisani-Ferry, J. *Euro-area Governance: What Went Wrong? How to repait it*, Bruegel Policy Contribution, June 2010.

Pisani-Ferry, J., Sapir, A. *Banking Crises Management in the EU – An Early Assessment,* Economic Policy, 25(62): 341-373, 2010.

Rodrik, D. *The IMF Needs Fresh Thinking on Capital Controls*, Project Syndicate, 2009.

Roubini, N., Miham, S. *Crisis Economics*, London: Penguin Press, 2010.

Subramanian, A. *Coordinated Capital Controls: A Further Argument in Favor*, Real time economic issues watch, December 2, 2009.

Taleb, Nassim N. *Fooled by Randomness. The Hidden Role of Chance in Life and in the Markets*, London: Penguin Books, 2004.

******* The High Level Group on Financial Supervision in the EU, chaired by Jacques de Larosière, *Report*, Brussels, 25 February 2009.

The Turner Review *A Regulatory Response to the Global Banking Crisis*, FSA, London, 2009.

Weder di Mauro, B. *Taxing Systemic Risk: Proposal for a Systemic Risk Charge and a Systemic Risk fund,* presentation made at the Bundesbank, 25 May 2010.

Yeyati, E.L., Schmukler, S.L., Neeltje, van Horen *Crises, Capital Controls and Financial Integration*, ADB Institute Working Paper No. 121, November 2008.

MONETARY POLICIES AND BANKING INSTITUTIONS IN TURKEY: LESSONS FROM THE PAST

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Abstract

When monetary policies and banking institutions in Turkey were being investigated in order to drive some lessons for the future from the past, there may arise a couple of front-leading conclusions. The first lesson may be called as that it takes time to develop an efficient and effective two tier banking system if there is no reliable human and capital capacity to support the evolution of the financial system. Only foreign aid or technical assistance may not be sufficient to design an ideal system. Other than that a second lesson would be named as the parallel linkages between developments of central and commercial banking. It may not be true that each tier develops contemporaneously and co-development seems complementary. Another lesson might be called as the critical importance of a societal agreement to functionalize the market forces in terms of relative price determination and optimal price discovery by the market forces. Also seems relevant that instead of trying to be excessively creative in terms of central banking and financial service provision; sometimes it might be more productive or more welfare enhancing to keep things to the basics with lower leverage and conservative expansion or the so called narrow banking.

Keywords: Monetary Policy, Banking Institutions and Services, Central Banks

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1. Introduction

The beginning of the 20th Century may *not* be identified as an ideal environment for the successful implementation and welfare enhancing function of monetary policy in general terms. The world was in almost permanent political conflicts with ever-lasting force use against each other for much type of disagreements, be it serious or simple. Such a *status quo* forced one of the highest prices of these unending restructuring of the financial and monetary order in the globe by the demise of power of the Ottoman Empire. After surviving more than 600 years and creating one of the strongest and biggest political establishment with one of the highest welfare creation that the history has ever witnessed, winners of the World War I have invaded the capital Istanbul and speeded up de facto end of the Statehood.

Through the Independence War mainly engineered by Ataturk and supported by the Minor Asian resistance, the new Turkish Republic Grand National Assembly gathered in Ankara, a small Anatolian city in the central part of the Mainland, and Republic was being declared in 1923, a date also set the official end of the Ottoman Empire. Naturally, the primary goal of the newly independent and young republic in terms of the monetary policy was not and could not have been to target low inflation with high growth. In those years with lots of political unrest and institutional bottlenecks, crisis prevention and ending the hunger danger arising from the scarcity of basic household consumption goods were almost only policy option to shape the monetary and financial domestic landscape. Global environment was not promising, as well: even after the end of a destructive global conflict, there were clear signs of emerging conflicts to lead to another World War in less than two decades. It was easy to destroy an Empire with all its institutions but, as a double force major of the transformation, it was also costly to establish a Republic from scratch, especially when the human capital was mostly being lost from unending conflicts surrounded the last half century with such a terrible cost of many lives and injuries.

One of the inevitable outsets of inconclusive discussions about the history was that whatever the circumstances have been, certain decisions had to be made. In this regard, one of the most critical political transitions in

South Eastern Europe was the end of Ottoman Empire and the emergence of the Republic of Turkey. This paper takes central to its topic in twofold: in the first part, monetary policy will be placed under the spotlight and with a historical perspective, stages of critical decision will be investigated including early years' fight against hunger prevention and poverty reduction, two-pillar economic policy strategies in 1930s and 40s and 50s when the State was leading to major investment with partial private sector involvement. Then, a special emphasis will be given to so called liberalisation efforts of 1950s and heavily planned periods of 1960s. Most of the critical monetary policy decision of these periods will be addressed including devaluations. With the reforms of 1970s, emergence of semi-independent central banking will be analysed in depth because that was the start of modern central banking in the country. Collapse of Bretton-Woods system and double oil crises placed a heavy burden but also forced more reforms for the transition to a market economy. It was those years when marketization of financial sector in 1980s began and monetary policy came to the limelight of everyday life because of so many critical decisions made under high and volatile inflation leading to unpredictable movements of interest rates, foreign exchange rates and deposit and credit market developments.

The first part of the paper investigates evolution of central banking in Turkey from the early days until present. Then it proceeds to discuss major monetary policy decisions made under the 1994 banking crisis and 2001 banking and financial sector crisis. The first one was put on the radar as an early sign of unsustainable imbalances surrounding not only the monetary policy but also economic policy environment. The section concludes with an investigation of very successful transformation of the economy from the collapse in 2001 to the surviving the worst global crisis in 2008 without injecting a single penny to the banking sector. This resilience is called as a direct end of successful monetary policy implementation during the implicit and explicit inflation targeting regimes of early 2000s, which has been completed with a financial stability pillar in the late 2010s. The future challenge for the central banking seems to sustain the recent pace to bring inflation permanently under control so that the dangerously bleak future for the global monetary

and financial order places the least cost of contagion on the national economy.

The second part of the paper discusses the banking institutions with a historical agenda. It argues how low was the inheritance of financial service provision capacity from the Ottoman Empire, evident with a request from the Ottoman Bank, which was a fully foreign owned bank with a licence of central banking to the government, to employ more Turkish Citizens in their departments in order to allow a class of bankers to emerge for the future. With the lack of capacity in the national level, during the emergence years of the Turkish Republic, it was basically foreign financial institutions that have been providing financial intermediation including the central banking services.

However, there were clear indications to support public private partnership for subsidising the establishment of national private banks. As national banks were given a status of choice, many foreign banks preferred to cease their activities, leaving their position fulfilled by local capital. Under the heavily controlled economic policies, it was in the middle of 1950s that commercial private banks started to emerge but the heavy presence of public banks in almost all sectors to support growth was preventing the emergence of successful and well-capitalised financial institutions. This part of the paper also addresses the early reforms of banking system to allow the dynamics of market forces to determine the deposit and credit markets with free interest rate settlement in the early 1980s. These wishful initiatives were given a break because of ponzi-style banker institutions' destructive collapse in 1983. Then, another phase has taken the leading role, which may best be described as the marketization of financial industry with the establishment of capital and money markets including Capital Markets Board. However, high and volatile inflation has led to the partial collapse of the banking system in 1994, which was followed by an economic crisis in 2001 with a cost of more than 20 percent of GNP.

Luckily, crisis management, resolution and restructuring with recapitalisation during the turbulent years in the first half of the first decade of the 21st Century helped the Turkish banking institutions' costless survival without a single penny public money injection during

the global crisis that has started to create a domino effect leading to many bankruptcies or public rescues in many countries since 2007. Recent statues of the banking institutions from a competitive perspective seems quite advantageous in terms not only the regional level but also the global level facing quite limited structural issues, namely privatisation of shares in the public banks. The rest lies on the entrepreneurial capacity of the banking institutions in Turkey to utilise national and international opportunities to maximize their contribution to the optimal intermediation quality to the economies that they serve.

This paper will address the monetary policy developments in the following part, address the banking sector developments in the next part and then conclude with some recommendations.

2. Monetary Policies in Turkey

It might be unacceptable to argue that the heritage from the Ottoman Empire with regards basic infrastructure of monetary policy conduct was sufficient to jumpstart an efficient framework to design a well-functioning efficient and effective financial transmission mechanism in the early years. Priorities of the economic policy was far behind to include price stability or so distant from an initial launch of national financial infrastructure. This sections aims to describe basic stages on the emergence of Turkish monetary policy infrastructure from transition of central banking from a foreign financial entity to a national institution and from passive monetary policy to liberalisation and marketization efforts of later years and finally, a full-fledged inflation targeter that tries to incorporate financial stability into its reaction function.

2.1. Monetary Policy in the Transition Period: Ottoman Bank

The Republic of Turkey faced so many political turmoils with so many serious difficulties to design a new financial system in the early stages of the emergence from the collapse of an Empire to built-up of a State from the roots. The resistance against invaders, with the cost of Independence War including the destruction of basic infrastructure, was preventing any early launch of ideal economic policy decision making framework. As a

result, the early years passed by on a "business as usual" bases with well-capitalised and respected foreign banks kept providing financial service demand from the society. The lack of resources including human capital prevented any initiative to start an immediate jump-start for national banking services. Hunger prevention and poverty reduction was being prioritized as part of economic policies as these were life-threatening aspects or realities for those difficult times.

Still, it was in 1925 that the Ottoman Bank had a chance to renew some of its licenses of central banking until 1935 only with conditions that they have forgiven their exclusive right to be the main financial agent for the Treasury and to cancel their supervision authority for the national budget. Financial sector redesign was not the initial agenda in early years. It may at least be argued that there were no well-footed initiatives to launch a new central bank against all hurdles and all lack of capabilities in a very hurry situation. On the other hand, for the medium and long term, cancelling the control of national budget or imposing the Ottoman Bank for employing Turkish citizens were clear indications of the future target of designing a national bank when the time becomes more suitable and more accommodative to support such an initiative. The capacity build-up initiatives for a national bank with well-equipped knowledge and expertise were urgently needed before dismantling the status-quo or de facto financial architecture.

2.2. Establishment of the Central Bank of Turkey and Independent Monetary Policy

The Young Republic did not have the best luck of giving a well-established financial infrastructure but has always intended to establish own central bank. Under negotiations with the Ottoman Bank, it was not a secret that the given agreements were not intended to be kept alive in the medium to long term. Preparations to set up a central bank from the early 1920s were already visible but lacking behind the targets because of one reason or another. Lack of capital was one of the basic barrier to realize the dreams of a national bank.

Against all difficulties and all hardship the Law on the Central Bank of the Republic of Turkey, which was numbered as 1715 was enacted on

1930 and the Bank was legally created in 1931 even though operations began officially on January 1, 1932 with a license to issue the national money for 30 years. This license was extended in 1955 up until 1999, which was redefined as indefinite during the changes in the Law in 1994.

Having a central bank was far more than symbolic for the sake of those years. First of all, almost all independent states of the world were launching their own central banks. Some private central banks were being nationalized in those years as well. Because of catastrophic and extremely volatile financial market conditions in the late 1920s and up until the end of Second World War, having a well-designed financial architecture centered on a well-functioning central bank was critical to sustain monetary and financial stability in the long run. 1929 financial collapse in the US and currency wars around Europe that has led to one of the most destructive hyperinflation in Germany were confirming the severity of the situation and it was so legitimate to concentrate on an stable financial system to empower financial intermediation and support growth in the future, which was desperately needed in order to diminish unbearable poverty and persistent lack of or not extensive availability of some basic consumption goods.

2.3. Passive Central Banking until 1970s Including Year Based Plan

Initial launch of a national bank does not mean that the monetary transmission mechanism might start functioning the next morning. Unfortunately, financial sector dynamics were much more complex in 1930s and 1940s with all complications of global conflicts turning into massive wars. In the new concept to create a national financial system, lack of capital accumulation was preventing the establishment of a deposit base that could be distributed to potentially profitable investment projects. For the emergence of intermediation, having a national well-functioning banking system was also a prerequisite, which was lacking behind as well.

Foreign banks did not want to expand their activities as soon as they realized that they will not be welcomed anymore as they have been treated as one of the main reason behind the collapse of the Ottoman Empire. Subsidizing national banks actually started before the creation of the

central bank and the intention of the new State was almost obvious to be nationalistic in terms of financial system provision. As foreign banks left one by one, lack of fresh resources to finance much needed infrastructural investment were becoming more and more visible.

Etatism or statism was somehow inevitable under these *de facto* structures of the economy and state sponsor banks started to play basic roles on the transmission. As a result of the dominant role of state banks, central banking was not active by definition and it may be argued that those years passed as living on the learning curve in terms of human resource build-up. Still, The Central Bank Law has been changed many times, especially during the planned years from 1960s or on the status of advances to the Treasury. Advances to the Treasury were being invented in 1950s and has turned out to be one of the most structural inflationary dynamics on the history of banking in Turkey. This was the main reason that it has always been in the economic stabilization programs to be cancelled. However, it was only in 1994 changes in the Law that the conduct of advances has been narrowed down in definition with a progressive cut in the available funds. Finally, the 2001 economic crisis defined the termination of this facility to the Treasury, which was also the end of `lost decades` with a fresh start of revitalisation of the economy.

It may be worth to mention that after Bretton-Woods system, central banking has been pacified by the international agreements. There was not much role other than following the foreign exchange rate that was pegged to the US dollar, which was pegged to the price of gold. As soon Turkey became a member of these international institutions, the monetary policy became inactive once again, this time as a result of international developments or global agreement on a fixed exchange rate system. That’s why the period until 1970s may best be described as passive central banking as many other factors such as hunger prevention and defensively preparations on the destructive implications of the Second World War.

During 1960s, a new trial for etatism or statism has brought back and 5 Year Plans that has underlined priorities of economic policies has given all the power of investment and implicitly consumption and income distribution as well. This has blocked any active central banking

implementations or activities. Even the settlement of deposit and credit rates was not on the sole control of the Bank. All the basic decisions about the economy were programmed in those 5 years plans and strangely early plans have worked very well even the successors were not that successful.

2.4. Emergence of Active Central Banking from 1970

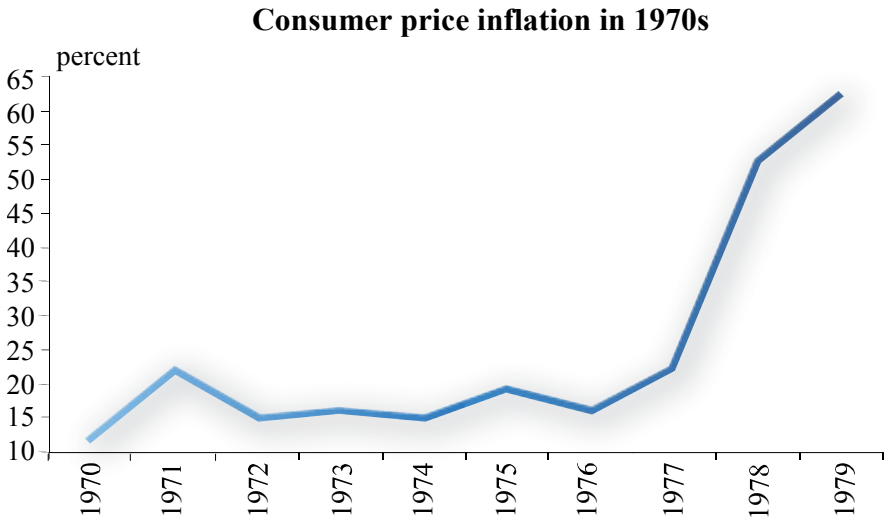
It was a coincident that the collapse of Bretton Woods was exactly coming in those years when central banking was on a restructuring process in Turkey. Successfully planned years of 1960s were coming to an end and there was more awareness about the basic requirements of modern central banking. The most critical change on the Law of Central Bank in 1970 was to aim to create a central bank that has a power to conduct open market operations in order to provide short-term liquidity to the banking system.

The big picture was a target to create a two-tier banking structure when the central bank engages in activities similar to any modern central banks in developed countries as one tier, which is completed by the intermediary institutions including banks that collect deposit and distribute it to entrepreneurs and households. It was also a semi-run away from etatism or statism. It was this year that full-fledged planned economy was not chosen as the way to go in the following decade and there was a clear intention to design a liberal economy. As a result, the central bank was enacted to set rediscount rates, which was the beginning of the elimination of deposit and credit rate controls as well. This was going to be a common practice more applicable from 1980. It was also given a license to execute Treasury operations and protect the value of Turkish lira with the Government. It may be argued that the changes applied were a road map for the market forces to be allowed in full force to determine resource allocation in Turkey.

Unfortunately, global developments were not supportive at all. 1970s turned out to be one of the least favorable performances in terms of growth and inflation. Actually it was this decade that high and volatile inflation became a macro problem (Figure 1). Because of the double oil crises, the economy faced a bottleneck and after 50 years, lack of basic

consumption goods became a social issue. Oil was an input for many manufacturing lines and supply chain distortions led to the collapse of main distribution channels of basic goods.

Figure 1



Source: Turkstat, Statistical Indicators, 1923-2009

2.5. Marketisation Period and 1980s with Open Capital Accounts

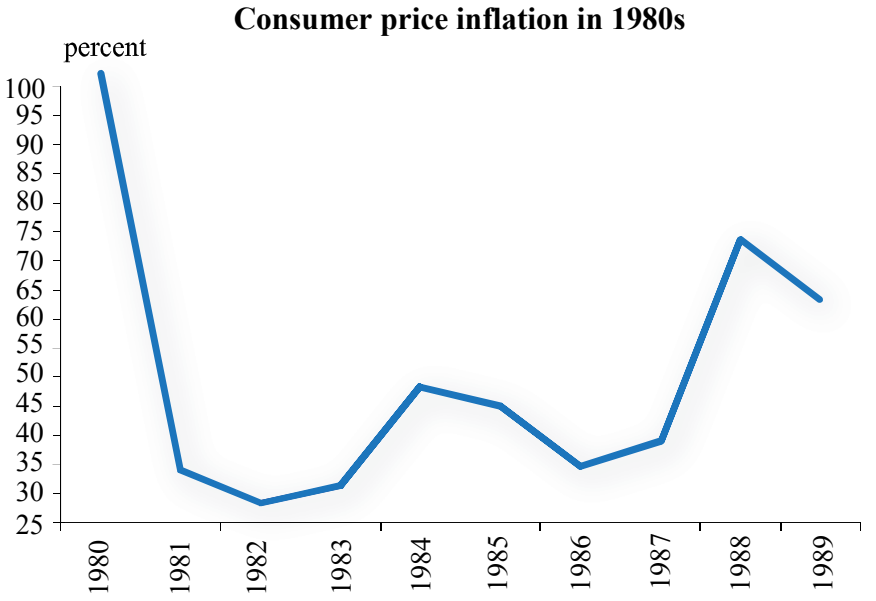
Double oil crises of 1970s have taken away all the etatism "or statism" approaches to macroeconomic management in Turkey and liberalization efforts started to dominate the restructuring efforts. It was obvious that planned economy could not survive external shocks. Import substitution strategy failed to prove its resilience when double oil shocks made the availability of raw materials almost unreachable and export-led growth strategy was the only available macro-strategy to jump start sustainable growth after all.

The Central Bank of Turkey was once again in the middle of this transformation. Once the new stability program was launched in January 1980, most of the reform items were directly or indirectly related to monetary policy. First, exchange rate controls was put on the agenda of change. During the 1970s, a parallel unofficial black market for foreign exchange has emerged and even many devaluations had narrowed the gap

between official and unofficial rate, it never disappeared. In order to cure the anomaly, the Central Bank started to announce forex rates daily and from 1983, parallel rates downplayed its role until 1994 when there was a banking crisis. Just after this crisis, market rate has been taken by the Central Bank as official rates through a primary dealer system as data source and unofficial market finally lost its impact. During this process, foreign exchange rate operational responsibilities has been placed more and more on the Central Bank on a step by step basis.

Liberalization efforts dominated the macroeconomic policy environment from the 1980s. Financial market liberalization played a critical role on that. But premature and fast reforms brought some well known side effects as well. For example, interest and credit rate determination was being liberalized and in a couple of years a banker crisis in 1983 led to chaotic bank collapses. This type of road accidents delayed social support for reforms as well and kept inflation still high and volatile.

Figure 2



Source: Turkstat, Statistical Indicators, 1923-2009

In a more controlled manner, the Central Bank of Turkey has taken a bigger role on marketisation efforts. One of the early primary market operations of the Bank was the beginning of buying and selling gold in 1984, even it was in limited amounts. A regular intermediary organized Gold Market was established in 1989. Before that stage, there have been progressive developments of different markets within the Bank in order to support the establishment of a free and liberal market economy in Turkey:

- 1985: Treasury Borrowing Mechanism with the Establishment of a Primary Market;
- 1986: Interbank Money Market;
- 1987: Open Market Operations with Repo and Reverse Repo Markets;
- 1988: Foreign Exchange and Banknote Markets;
- 1989: Gold Market, which was de facto ended when the Gold Exchange in Istanbul has been created in 1993 in Istanbul.

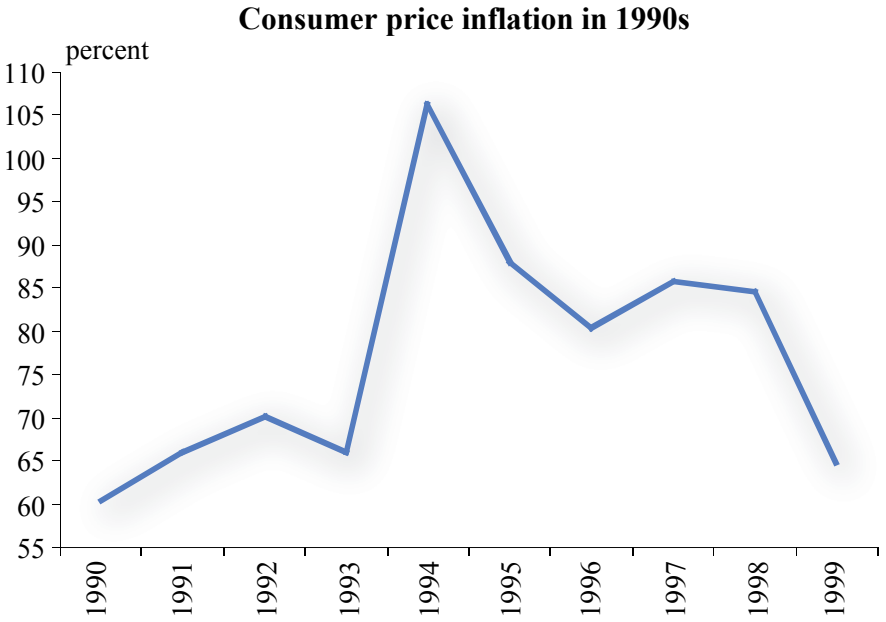
With these institutionalizations efforts, financial intermediation became more effective and at least wholesale markets were becoming operational from progressive strategy. One of the clear benefits of these prescriptions to clear barriers for the emergence of an efficient and effective financial system was the interest of foreign banks. After almost forty years that they left Turkey, external capital was once again found attractive to operate in Turkey.

Another critical component of the marketisation efforts in Turkey was the opening of current account with Degree number 32, which came with the de jure convertibility of the Turkish lira and eliminated all of the major capital controls in the last year of 1990s. Capital account liberalization was in a sense the final frontier in marketization efforts and Turkey became a “small open economy” as commonly or initially referred in the literature. This decision liberalized the deposit and credit markets and there might be some arguments that asset and liability dollarization gained one additional phase with this decision to bring forex risk to a higher plateau.

2.6. Banking and Liquidity Crisis in 1994 and Economic Crisis in 2001

Reformist efforts of 1980s brought its own mistakes and one critical mistake was to miss the capital adequacy in the banking system in order to manage volatile market conditions and increase their resilience to internal and external shocks. 1994 banking crises was coming with a noise because there was clear signals from the fiscal sustainability front but still no counter measures were declared to sustain market confidence. There was also two much intervention on the government bond and bill markets and some of them was not very common practice not only in Turkey but all around emerging counties such as putting caps on term structure of borrowing in favor of short term borrowing. The shortening of duration increased the rollover risk and the expected crisis hit in January 1994. Unfortunately, until May there was no clear road map for the recovery. Volatile market conditions became the norm in those years and the term "lost decades" was brought into literature as the expected stability program was not on the sight. Inflation volatility increased further and the level was still on high territories.

Figure 3



Source: Turkstat, Statistical Indicators, 1923-2009

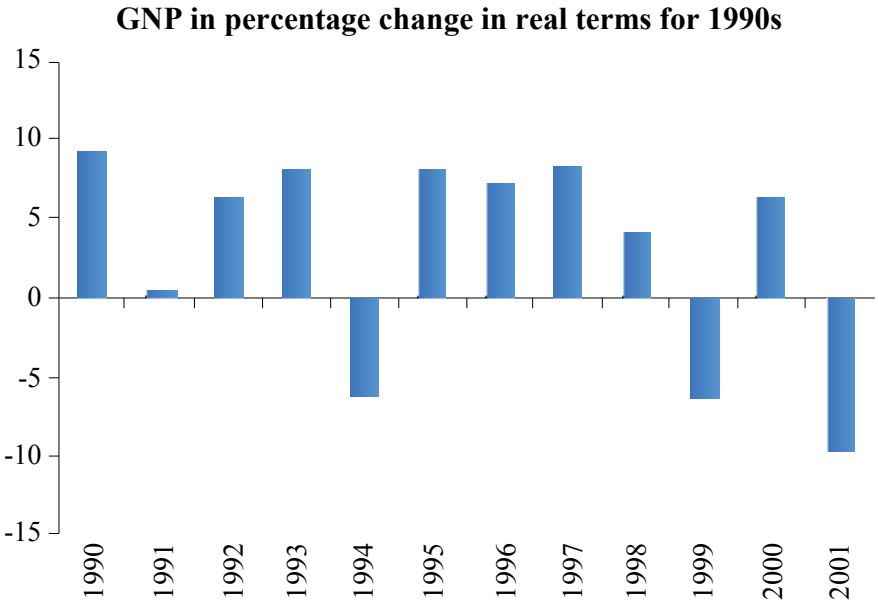
Central banking in those difficult years was actually quite in a difficult position and as the best policy option available under those unstable economic conditions was to watch out daily functioning of payment and settlement systems with an eye on financial stability. Actually, there was an exchange rate stabilization program from 1999 but promised privatization revenues were missed and exchange rate anchor collapsed in February 2001 and Turkey fell into a very destructive economic crises.

These two crises have deeply reshaped central banking in Turkey. In the first instant, the short-term advances to the Treasury have been progressively decreased and the amount has been decreased from the 15 percent of annual expenditures in the national budget to a certain amount of annual increase in the national expenditures, which has actively eliminated the base effect. Short term advances to the Treasury was always being perceived as one of the main factor supporting high and volatile inflation in Turkey since 1970s. Banking crisis in 1994 was used as a good opportunity to cancel out this structural issue forever and actually the reform worked well in the following years.

In the 2001 crisis, short term advance practice has totally being cancelled in order to open the way to design an independent central bank, at least from the instrument independence. In the same year, major structural changes have been designed and taken into action in a regular basis and the whole conduct of monetary policy implementation has been placed under the implicit inflation targeting framework which has transferred the settlement of operational interest rates to the Monetary Policy Committee. The Law openly declared that the main responsibility of the Bank is to achieve and sustain price stability and then support growth in accordance. Almost all market unfriendly duties on the Bank have been cancelled forever and the Law was brought much closer to the European standards.

A simple analysis of the growth performance of the Turkish economy for 1990s clearly exhibits the extremely volatile growth. Unfortunately, doing business in those years has been quite difficult and volatile growth eliminated any chance of capital accumulation for future generations, which has been always an issue since 1920s.

Figure 4



Source: Turkstat

2.7. Implicit Inflation Targeting: 2001-2005

This period may best be described as the capacity built-up for the effective and efficient market economy central banking. Most of the investments within the Central Bank prioritize the credibility and transparency on the conduct of monetary policy. Resources have been invested to increase the quality of communication skills and further investment was put on the quality of date provision, including the measurement of expectations, which was a vital source of information on the inflation targeting framework. In 2005, another major central banking decision has been taken and six zeros from the Turkish lira have been dropped in order to erase the strongest reminder of the past failures with high and volatile inflation, which did not enhance much welfare that has stayed under potential for more than three decades.

Implicit inflation targeting period has witnessed one of the most challenging macroeconomic stability programs in emerging markets. To be more precise, one of the basic anchors of that stability program was a

primary surplus of 6.5 percent. It took more than six years for the IMF to lose this conditionality. Compared to the recent stability programs that has been designed for south European countries with still primary deficits as part of their stability action plans, such a high primary surplus was a "once in a life time" experience for the conduct of monetary policy as well. It helped a lot to the Turkish Central Bank to find some flexibility to clean up historical bad memories all about fiscal dominance and high risk premium arising from it.

2.8. Explicit Inflation Targeting after 2006

Most of the radical changes that have been required for a rational environment for the conduct of monetary policy under inflation targeting have been complete when official launch of explicit inflation targeting has taken in effect. The challenge from then on has been to contain the risk of price level volatility by increasing the analytical strength of the Bank in such a way to obtain an economic environment that financial intermediation decisions can be taken with an ignorance of price fluctuations. As the price stability has been defined in this way, one may argue that it has been gained in Turkey under the explicit inflation targeting regime and the current problem right now is to sustain this stability by limiting all risks that may bring high volatile prices back to the scenes of financial loops.

When we take an easy look at the Central Bank performance in terms of inflation targets and realizations, it seems much apparent that implicit inflation targeting period was much more successful compared to explicit targeting period. As a whole, bringing inflation to single digits after 40 years has been a remarkable achievement and the new goal is to sustain price stability in such a way that price level plays just a minor role in terms of investment, consumption and other decisions that firms and households make in the daily conduct of their lives.

Table 1

Inflation targets and realizations

	Target (%)	Inflation (%)
2002	35.0	29.7
2003	20.0	18.4
2004	12.0	9.3
2005	8.0	7.7
2006	5.0	9.7
2007	4.0	8.4
2008	4.0	10.1
2009	7.5	6.5
2010	6.5	6.4
2011	5.5	-
2012	5.0	-
2013	5.0	-

Source: CBRT

This success story attracted heightened interest from foreign investors especially to the banking industry and Turkey observed an influx of additional capital to banks from multinational investors. This has helped increasing capital adequacy ratios of the private banks to levels not being seen before. Public banks financial performances were also on the accommodative side for additional capital add-up. This is a case that has been so helpful for the Turkish economy to survive global economic crises dominating the World since 2007 as there was no need to inject to the financial sector a single penny from the taxpayers' funds.

2.9. Maintaining Price and Financial Stability Together: A Reaction to Global Crises

To contain price level stability on a sustainable platform, one strategy was to react external shocks in the most appropriate way. This has been done during the beginning of global financial crisis and operational rate has been cut drastically in order to ease financial conditions. The new challenge is to respond external imbalances so that they do not threaten the future prerequisites for the financial stability. For this aim, an additional anchor on the monetary policy decisions has been declared

as prioritizing financial stability, a condition necessary for price stability in the long run. And also, additional monetary policy tools such as liquidity management strategy and required reserves have been activated and being used against excessive rapid credit growth, which leads to risky levels of current account deficits.

On the other hand, challenges may best be described as unprecedented. Global financial crises have got no easing tendencies at the moment. One day, it is the US economy and next day it is the continuity of Euro as the single currency of the Eurozone. Arguments such as currency wars have been used more often compared to two years ago. Global imbalances seem to stay as a persistent issue that has been kept on the agenda of G-20 for all meetings.

Under these difficult circumstances, it is almost impossible to argue that challenges for the monetary policy implementation in Turkey are easing. It is just the opposite case that the future seems more complex and complicated. More than that if the financial architecture of the current status quo goes to a disorderly restructuring, challenges for the emerging economies would be on the high end.

Against all odds, it may also be correct to argue that the Central Bank of Turkey since its launch has never been better equipped against domestic and global challenges. The monetary policy implementation has been institutionalized and analytical skills have been increased on a regular basis. The Bank has been working on institutional capacity built-up for a decade now and human resources have been prioritized accordingly. As a result, it may be concluded that even challenges seems to be unprecedented, after all those difficult years of 1980s and 1990s and after all those extremely destructive banking and economic crises of 1994 and 2001, the Central Bank of Turkey is now much more capable of facing the difficulties of the future challenges including integration of financial stability into the reaction function without undermining price stability. At least, it may be argued that the sources of future crises might be external and the probability of a domestically built-up of financial imbalances seems quite low under these conditions. This should be regarded as an achievement at the end, even if the learning process took more than 80 years.

3. Banking Institutions in Turkey

First of all, it may be worth underlining that commercial banking has been nationalized much more earlier that the central banking in Turkey. Obviously, Ottoman Empire has never had a central bank similar in design to the Bank of England or Riksbanks from Sweden. But, commercial banks have been quite active especially from the second half of 18th Century. Most of those banks emerged strongly with foreign ownership and in terms of financial liberalization, actually Ottoman way of doing business was extremely friendly to external investment.

3.1. Heavy Dependence on Foreign Capital in the Early Years of the Republic

It may be argued that the end of Ottoman Empire was disorderly in terms of financial service provision. Heavy debt burden and invasion by the foreign forces ruined the financial paradigm. Already scarce capital was mostly disappeared and uncertainties about ownership rights for the future created a collateral issue for credit transmission. Under these circumstances, domestic capital formation was limited as well. Political chaos and lack of future direction made all financial service providers more and more conservative. Technically, the literature calls this phenomenon as credit crunch when the financial service provision pauses in one way or another.

From the end of First World War until the Peace Agreement with the Republic of Turkey, the financial chaos persisted. During these difficult years, there has always been a reaction to foreign financial service providers as they were blamed to behave against the nation interests. Still, most of the financial companies that has been engaging their businesses with the licenses from the Ottoman Empire preferred to keep their activities especially in Istanbul for an extended period.

On the other hand, to enhance the emergence of a national banking system after the declaration of Independence, the prerequisites was to have enough resources to form a capital base for the new financial institutions. Capital accumulation inherited from the Ottoman Empire to the Republic was not enough to help national banks being established in

the short run. This was the reason why basic banking services have been provided by foreign institutions in early years even there was always an intention to create national banks. However, it is worth mentioning that there were some very efficient city banks all around Anatolia and it would be an exaggeration to argue that financial activity was almost nil during the transition period. The main tendency was the diminishing market share of foreign financial institutions as a whole while there were heightened signs of an emerging national financial infrastructure even the dependence on external capital was high. A couple of mainly banks with national capital and mainly active in the last decades of Ottoman rule has also successfully sustained their activities namely Ziraat Bank, which was basically responsible for agricultural credits. This bank is still the biggest on deposit collection in Turkey, today with a long history of resilience to changing paradigms and a main strength of survival against major crises.

3.2. Incentives for the Emergence of National Banks

Early national banks were a part of public and private partnership. As the excessive private licenses given to the Ottoman Bank have been limited from 1925, there was some space for national banks to make business in a profitable manner. It was after this stage that national banks started appearing in the financial landscape. The first decade of the Young Republic passed without a national central bank, as detailed in the first part of this paper. Ottoman Bank as a foreign bank was providing central bank service to the government. It was the only foreign bank that was dedicating its activities for the future while many more, especially those banks in Istanbul with foreign capital base realized quite soon that the new paradigm would not have preferred them in the medium to long term.

By the cooperative structures and with the help of incentives originally to support the emergence of national banks, there were some financial institutions with a certain amount of capital to emerge and start providing financial services. It is worth mentioning that his was an evolutionary phenomenon and the speed was really slow because of the lack of capital base and because of the lack of business potential with no strong sigh of deposit accumulation.

3.3. Demise of the Dominance and Categorical Disappearance of Foreign Banks

Foreign banks dominated the system until 1929, when certain laws have been enacted to keep the Turkish lira rates stable and defend the value of lira in the long run. After this law, many foreign banks left Turkey and did not come back for so many years. Because of the global turbulence and the US catastrophic disorderly financial collapse of 1929, like many other nations, Turkey also tried to defend stability of the national currency with heavy controls. Laws imposed on this front and profitability of commercial banking decreased sharply. Already fragile and sensitive foreign banks preferred to scale down their activities and in the following short distant, they terminated their activities permanently and left the country.

As argued in the first section, Ottoman attitude toward financial service provision was quite liberal and global in terms of tolerance to foreign ownership based financial service provision. Quite opposite was the case in the young republic, a case that was around as a national strategy until 1980s. Foreign banks somehow understood sooner and later that there will be a categorical reaction to their activities. There was no profitable business case for them anymore.

With the establishment of the Central Bank in the first part of 1930s, it was quite obvious that the new financial paradigm aimed to support nationalization of financial service provision. The slow pace of capital accumulation and lack of deposit base did not stop nationalistic motives of that time.

It might be also worth to underline that most of the foreign capital in Turkey during the first decade of the 19th Century was European capital and Europe was almost in permanently destructive conflicts in that period. If we take into account both pull and push factors, it may be argued that both pull and push factors was supportive of the nationalization of finance in Turkey. European capital was also going back somehow because of unending chaos in its mainland.

3.4. Birth of Commercial Banking from 1950s

Lack of a strong capital base and chaotic global financial conditions forced a narrow banking system development in Turkey. Intermediation was far from being efficient or effective and most of the financial decisions were coming from the central authority. Macroeconomic decision making was quite authoritative even if there were clear support to the emergency of a national banking system.

During the 1930s and 1940s most of the profitable and less capitalized city banks went bust or through mergers and acquisitions they tried to create a national branch network in order to increase their survival prospect arising from the hectic national and global financial disorder. Some of them managed to create the needed network but most of them went bust. This period was the end of local banking service provision and national networks had a better performance compared to banking activities concentrating in a narrow geographical space.

After the Second World War, the whole global financial architecture faced a new paradigm with the emergence of Bretton Woods. Monetary policy was being pacified by these institutions and all national currencies in IMF member countries was anchored to US dollar, which was anchored itself to a fixed price of gold. Turkey preferred a high level of advantageous and pre-organized devaluation in order to increase its comparative advantage in this new paradigm. Devaluations turned out to be the basic monetary policy decisions from then on. Here is a list of major devaluations of Turkish lira:

Table 2

Major devaluations in Turkey as recorded by the central bank

Date	TRY/USD rate (before)	TRY/USD rate (after)	Devaluation rate
7.09.1946	1.26	2.80	122.2
4.08.1958	2.80	9.00	221.4
10.08.1970	9.00	15.00	66.7
1.03.1978	19.25	25.00	29.9
10.04.1979	25.00	26.50	6.0
12.06.1979	26.50	35.00	32.1
24.01.1980	47.00	70.00	48.9

Source: Parasiz, Tezel, Zarakolu

Unsustainable etatism or statism growth strategies of early decades came to an end from the beginning of 1950s. More liberal macroeconomic strategies were preferred by the new decision makers of the era. Heavily controlled economic policies have been replaced with a more open and market friendly policy. The private sector was not late to respond to this new paradigm and many commercial banks have been established with private capital to provide financial services. Even if deposit and credit rates have been regulated heavily, private banks has at least started to accumulate a certain amount of experience for the future challenges.

Global conditions were appropriate for the emergency of commercial banking as well. After the destructive events of the conflicts and wars, the global economy enjoyed a period of fast growth and welfare creation speeded up almost in all countries. The impact cold war was not dominating the global arena as a barrier on the realization of global potential growth at that stage. Reconstruction spending arising from the destruction of long running wars was empowering the global growth as well. Turkey was no exception and there was a high growth era for the early 1950s with no inflationary pressures on sight. Major manufacturing groups and major trade groups were being attracted on the future profit capacity of commercial banking and it was a period when many commercial banks started their operations one by one and one after another. One special step in terms of financial institutions during this period was the establishment of Banks Association of Turkey in 1958, which was another reflection of the maturation of financial service provision.

3.5. Heightened Role of Public Banks

From 1960s, planned economic polices replaced liberal and market friendly decision making procedures. Suddenly, etatism or statism became dominant once again. An import substitution framework was selected as macroeconomic growth strategy. The new paradigm limited the activity areas of the young commercial banks. As the welfare decisions were centralized, market based optimal price discovery left its place for government determined relative price structures.

A 5-Year Plan has been prepared and almost all economic policy has put in action accordingly. Banks expected intermediation in this framework

was to collect deposit and distribute credit in accordance with Plans. Deposit and credit rates have been strictly controlled during the new paradigm. Banks were not allowed to compete with interest rate or credit rate settlement. Practices like attracting customers through lotteries or additional "*present*" distributions for selected depositors became common practices.

Market unfriendly structure was keeping foreign capital away from any investment. The foreign capital was not being attracted by the future potential of financial service provision in Turkey. One reason for this was the interventionist character of the national financial architecture. Early performance of this planned period was actually quite bright in terms of growth and non-inflationary pressures.

A storyline for this period was the trend to create one public bank for almost all sectors that has been prioritized in the Plans: If the tourism industry was taken more attention in one particular 5-Year Plan, then a bank to distribute credits in that sector was founded and named as "tourism bank". In a couple of years, all major sectors had a public bank. Most of the banks did not have a deposit base but somehow they were assumed to have resources to support related sectors. Sometimes, central bank advances or credits had been used as a strategic mistake as well because this practice proved excessively inflationary in the following decades. Even the initiative had its right arguments from the ideologist planners, in the following years, there was a very high cost to consolidate these banks as they lost all their profitability and stayed stuck with a very high level of non-performing loan portfolios.

However, the beginning of 1970s a and first and second oil crises put extra pressure on the sustainability of the system in the long run and totally destroyed sustainability of the planned economy dreamers. Import substitution based growth strategy had bottlenecks of finding the raw materials to keep supply chains sustainable because lack of hard currency to import oil and energy was not available. Most of the project credits turned out to be non-performing during this decade and the country was `in need of 50 cents` as it was described by some decision makers in that period. In order to keep the import of urgently needed raw materials and sustain manufacturing lines accordingly, more risky actions have been

taken such as giving forex rate guarantees. It was a practice almost the same as nationalization of forex rate risk, which proved costly after every single devaluation in the following years.

Crisis management and external debt default risk has led some creative financials service provision practices in this decade as well. For example, as the credibility of public or private banks were not enough to attract foreign depositors there was a plan to create incentives for Turkish diaspora working especially in Germany and it was only the Central Bank that managed to collect some deposits from them. This practice is still going on in fact and the amount of this deposit stock is close to 10 billion US dollars. Obviously, it was narrowing the area of commercial banking in Turkey and it was a barrier to attract foreign investment when external capital was urgently needed. Under these circumstances, it may be argued that 1970s was one the worst decade for the performance of financial service provision.

3.6. Trials of Free Banking in 1980s and Bankers Crises

One clear observation for the history of financial stability in Turkey is that every crisis brought a heightened pressure for reforms. In this term, first and second oil crises led the end of heavily controlled economic policy structures, which was leading to irrational financial service sector decisions such as opening foreign exchange accounts for the Turkish workers leaving basically in Germany at the Central Bank. As the currency risk was basically being nationalized through preferential credit mechanisms, the lack of hard currency empowered unsustainable economic policies and the stability program also supported by the International Monetary Fund (IMF) has taken effect in 1980 to address basic structural problems. It may be argued that no single crisis was missed as it was turned into an excuse to execute more reforms to bring the Turkish economy to compatible territories to the European standards.

Some of those problems were placed under a solution and the control of credit and deposit rates controls have been relaxed in 1980 in order to stop negative real interest rates preventing capital accumulation since 1950s. Economic stability program that was designed with the help of international financial institutions was taken to a more liberal approach.

Unfortunately, the lack of effective and efficient supervisory and regulatory governance failed to defend banks against emerging bankers` competition, which turned out to be ponzi-scheme like intermediaries. Most of these bankers collapsed in the 1983 crisis and early free banking trial has been disillusioned. This was a costly lesson about the speed of reforms and it was a costly lesson about the "management of change". A couple of commercial banks went bust in this period and there were more damage as capital adequacy was being deteriorated by the increase in the non-performing loans.

3.7. Institutionalization of Markets and Rebirth of Foreign Capital in the Sector

Non-ending reforms and restructuring efforts brought more change in the banking system from the 1980s even if the bankers crises created some scarce and was taken as a road accident. There was strong consensus to transform the Turkish financial landscape.

In this regard, Capital Markets Board has been established in 1981, which has fully become operational in 1983. Also, Istanbul Stock Exchange has been created in 1984 in order to fulfill one missing link on the capital markets. These have been followed by the primary money market institutionalization that has been created within the Central Bank. As summarized in the first section of this paper, so many wholesale markets have been opened under the intermediation of the Bank from scratch.

It was these reforms that have attracted foreign banks back to Turkey after so many years of absence and there were many foreign bank branches and representative offices in Istanbul. Most of these investments were being made by taking into consideration that Turkey has a strong future potential growth with its demographic bonus situation. Unfortunately, the required governance quality for the realization of this potential was lacking behind because high and volatile inflation and because of permanent risk of financial instability that has been kept alive with the help of unsustainable fiscal indicators. With the elimination of deposit and credit rate controls and with the market determined cost of public borrowing, real interest rates increased to unbearable levels.

Especially from the second half of 1980s, political instability once again became a source of high risk premium. Social divisions increased in this

period as well. The expected financial stabilization program with a strong credibility from the markets never came and borrowing duration became shorter and shorter periodically. Expectation mismanagement became a common source of increasing risk premium in this decade as well. It was sometimes so obvious that financial stability was not sustainable and financial system was almost on the brink of collapse if needed decisions were not being taken sooner rather than later. The following years proved the heavy cost of delayed reforms in these years with a very high price that has even deteriorated the outlook of public finances further.

3.8. Banking Crisis in 1994 and Partial Loss of Confidence Leading to 100 percent Deposit Guarantee

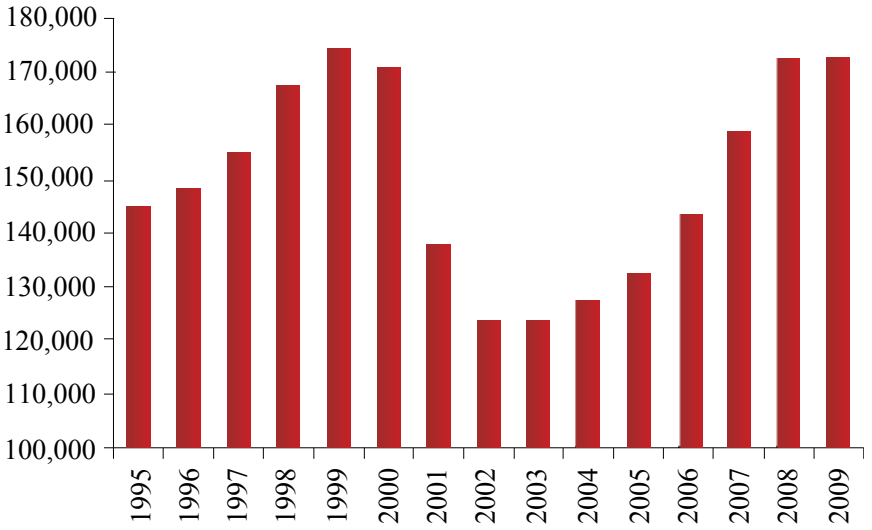
One of the prerequisites of the financial liberalization was to have a strong regulatory and supervisory framework in order to keep a close check on the capital adequacy of the financial system to keep resilience strong against any domestic or external accumulation of risks including tails risks or extreme events. Turkey became a small open economy with the Decree 32 that has been accepted in 1989. As being a dollarized economy since the deposit collection on hard currencies was being allowed in the middle of 1980s, it was not only asset but also liability dollarization that was increasing the fragilities in the financial system. The banking system was racing higher currency risks.

As the wholesale and retail money and capital markets have been fully operational and as the economy became open with the elimination of all types of capital controls in 1989, banks faced with interest rate, foreign exchange and liquidity risks. Almost all have been realized from the end of 1993 and there was a loss of confidence in the early stages of 1994. Many banks bankrupted. It was obvious that some financial institutions were not ready to manage or sustain the profitability. Sudden changes in the economic policies including direct interventions on the domestic borrowing mechanisms in one-sided preferences in the name of lowering the cost of borrowing was also responsible for the banking and liquidity crisis of 1994. This banking crisis has taken away another set of capital accumulation in Turkey. Already scarce savings decreased further. It was also a first sudden stop phenomenon that Turkey experienced.

1994 banking crisis has placed a heavy burden not only on the banking system. Also because of the liability and asset dollarization, public banks suffered from losses as well. Further deterioration on the fiscal accounts imposed some duties on public banks and some of the infrastructure projects were financed through credits from these banks. Most of these credits did not perform well and in the future a terminology names as "duty losses" emerged to define the non-performing loans of public banks. Unemployment cost of these mistakes was high.

Figure 5

Number of employees in the banking sector from 1995



Source: Turkish Banking Association

As another critical mistake, deposits in the banking system were guaranteed in order to ease the burden of bank runs. This practice provided too costly for the public finances in the following years as many banks collapsed one by one and the fiscal burden relied totally on the Treasury with rapidly deteriorating debt indicators.

It may be worth to underline a critical anecdote about this deposit guarantee strategy in times when high and destructive threatens financial stability. It was being once again confirmed from the experience of Ireland during the 2007 global financial crises that deposit guarantee is actually a double edge sword. In the short run, it might be a cure to stop bank runs and might buy some time to announce serious measures in order to support

market confidence including recapitalization or re-structuring of the financial system. As soon as these so-called necessary reforms are delayed because of fatigue or political instability or disagreements about the ideal set of decisions in terms of optimality, then side effects start to dominate the financial landscape. There is a small or very short time duration that the situation jumps from a financial stability enhancer to a major cause of a financial meltdown when the discussion reaches to the sustainability of government debt dynamics when deposit guarantee is taken into consideration as a contingent liability. When the Turkish experience in the 1990s is compared to the Irish case from 2007 to 2011, it is probable that there would be more similarities than differences.

3.9. Economic Crisis in 2001 and the Ultimate Collapse

Double digit high and volatile inflation lasting since 1978 has always been capital consuming for the banks in Turkey. As it is generally accepted one hazard from monetary instability is to lose the optimal relative price discovery that should be ideal when mainly shaped by competitive market forces. It may be argued that most of the structural problems of the Turkish economy have been generally known well and most of the required reforms have been continuously listen in the IMF stand-by agreements that have actually been signed quite often. For example, it was well known that the customs union with the EU should have signed with more financial aid from the European side in order to support local industries in Turkey until they have to capacity of survival against killing competitive power of European firms. This help never came and even the financial sector had its own responsibilities for the failures of the lost decades, it may be worth once again to remember that structural issues have been much more important than a particular sector's inefficiencies in terms of the social cost of mismanagement in those years.

At the same time, it might not be unacceptable to argue that most of the financial sector structural issues have been well documented as well. For example, in order to increase the governance qualities of the system, Banking Regulation and Supervision Agency has been created in 1999 and became fully operational in August 2000. At the same time, a more institutional approach was preferred in order to solve 100 percent deposit guarantee given during 1994 crisis with the creation of Savings Deposit Insurance Fund. Also, there were initiatives to upgrade governance quality of public banks, which have been on the privatization portfolio

most of the time ever since Turkey started to create an institution to support private ownership through the sale of public goods including government sponsored enterprises. Those initiatives have always fallen behind initial targets.

Specific event on a single emerging market may be limited to provide a full picture in terms of seeing all reason behind a particular situation when analyzing macroeconomic developments. Obviously, the responsibility or the factor behind a specific event might be totally home-made or might arise from domestic issues. However, lost decades for Turkey also shaped by global events. As a small open economy since 1990, the impact of external risk have been rising annually but many contagious from the global markets had its cost on the Turkish economy as well trough not only trade channel but also rising up the risk premium. 1994 crisis followed by unfavorable external conditions shaped by South-East and Russian Crises coupled with a terrible earthquake that left not many options for policy makers but to follow an IMF sponsored Tablita regime to bring prices under control and to sustain economic stability with the help of an forex rate anchor.

Unfortunately, the program was ill-financed and the political support was not strong enough to solve ownership issues. It collapsed in 2001 with predictable conclusions: a total collapse of the banking institutions that has cost more than 20 percent of GNP. As the promised privatization revenues under the Tablita based macroeconomic stability program have not been realized and political credibility brought into question, the foreign exchange rate anchor of the program has been broken leading to beyond capacity forex demand. The program ended with a catastrophe and floating exchange rate regime has been declared just after. Strangely, it meant that another pace of forced reforms has begun in the economy.

3.10. Restructuring, Recapitalization, Rationalization and Rebirth of the Financial System

The events after the economic crisis and ultimate collapse in 2001 might be a perfect case study in terms of how a crisis might be turned into an ultimate excuse to solve out so many mortal issues including many barriers in front of optimal and rational relative price structure determination mainly shaped by market forces. As this papers' scope is limited to central banking and financial sector developments from the early years of the Turkish history, we need to skip much parts of a

wholesale transformation of the Turkish economy towards the European Union convergence[1].

From 2001, institutional framework for banking and finance has mainly been shaped by progressive restructuring and recapitalization efforts. Independent health checks came one after another and with the help of ending political instability, excessive decisions have been taken to strengthening the capital and profitability base of banks. The so called stress tests have been completed one after another during these reformist years. A long term disease of manipulation of public banking that was leading to the so called "duty losses" did not appear in this period. It may be argued that it was a painful but necessary action for the sake of future or long term financial stability targets. Almost all related parties from the Treasury to the Banking Regulation and Supervisory Board, from Capital Markets Board to Deposit Insurance Fund were so dedicated to bury the mistake of the past that was costly and unsustainable. Political stability was just a big bonus around this dedication when even the Competition Board was giving a hand on the rationalization of the financial service provision in Turkey.

Banking system became of the most profitable sectors after all these initiatives. With the help of a 6.5 percent primary surplus anchor to eliminate fiscal dominance; intermediation gained full gear. The Turkish households enjoyed the launch of consumer credits systemically and with ever longer durations reaction to 10 year real estate credits. Following these very successful initiatives, banking sector enjoyed to get rid of nonperforming loan stocks and regularly increasing their capital adequacy.

Turkish Derivatives Exchange has been established in 2001 as part of further fulfilling the structural missing links in the capital markets by addressing institutional entities to help manage some of the risks more rationally through organized futures and options markets.

It might be worth to underline the cost of this transformation as well. In the following table, the banks that failed to resurrect from this recapitalization and restructuring process is listed. It seems quite obvious that the cost was quite high and it is wrong to argue that such a transformation would have to sacrifice in order to guarantee the effective and efficient design of the future shape of financial industry.

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[1] *The European Union convergence has always been on the agenda for the Turkish economy since 1960s. Even there seems so many issues recently surrounding especially the future of Euro or the sustainability of single currency, it is believed that convergence would stay on the agenda in the near future in one way or another.*

Table 3

List of banks that were closed after the 2001 crisis

	Establishment year	Historical data
Ak Uluslararası Bankası A.Ş.	1985	It was transferred to Akbank T.A.Ş. on 20 September 2005
Atlas Yatırım Bankası A.Ş.	1999	The license to perform banking operations was revoked on 10 July 2001
Bank Kapital Türk T.A.Ş.	1986	It was transferred to Sümerbank A.Ş. in 26 January 2001 and the license to perform banking operations was revoked on 18 February 2001
Birleşik Türk Körfez Bankası A.Ş.	1988	It was transferred to Osmanlı Bankası A.Ş. on 29 August 2001
Credit Lyonnais S.A.	1987	It was transferred to Credit Agricole Indosuez Türk Bank A.Ş. on 18 March 2004
Credit Suisse First Boston	1998	It was liquidated on 11 September 2003
Demirbank T.A.Ş.	1953	It was transferred to HSBC on 13 December 2001
Ege Giyim Sanayicileri Bankası A.Ş.	1995	The license to perform banking operations was revoked on 18 January 2008
Egebank A.Ş.	1928	It was transferred to Sümerbank A.Ş. in 26 January 2001 and the license of to perform banking operations was revoked on 18 February 2001
Eskişehir Bankası T.A.Ş.	1926	It was merged under the name of "Etibank A.Ş." on 2 July 2001
Etibank A.Ş.	1935	The license to perform banking operations was revoked in 28 December 2001. The liquidation process was revoked and it was transferred to Bayındırbank A.Ş. on 5 April 2002
Fiba Bank A.Ş.	1985	It was transferred to Akbank T.A.Ş. on 9 April 2003
ING Bank N.V.	1997	It was liquidated on 30 June 2003
Interbank A.Ş.	1888	It was merged under the name of Etibank A.Ş. on 2 July 2001
Koçbank A.Ş.	1981	It was transferred to Yapı ve Kredi Bankası A.Ş. on 28 September 2006
Milli Aydın Bankası T.A.Ş. (Tarişbank)	1913	It was transferred to Denizbank A.Ş. on 21 December 2002

(continued)

	Establishment year	Historical data
Morgan Guaranty Trust Co.	1999	It was merged with The Chase Manhattan Bank on 10 November 2001
Okan Yatırım Bankası A.Ş.	1998	The license to perform banking operations was revoked on 10 July 2001
Osmanlı Bankası A.Ş.	1863	It was transferred to Türkiye Garanti Bankası A.Ş. on 13 December 2001
Pamukbank T.A.Ş.	1955	It was transferred to Türkiye Halk Bankası A.Ş. on 17 November 2004
Park Yatırım Bankası A.Ş.	1992	The license to perform banking operations was revoked on 6 December 2000
Rabobank Nederland	1998	The license to perform banking operations was revoked on 3 April 2002
Sınai Yatırım Bankası A.Ş.	1933	It was merged under the name of Oyakbank A.Ş. on 11 January 2002
Sümerbank A.Ş.	1963	It was transferred to Türkiye Sınaî Kalkınma Bankası A.Ş. on 29 March 2002
Tekfen Yatırım ve Finansman Bankası A.Ş.	1989	It was transferred to Bank Ekspres A.Ş. on 18 October 2001
Toprakbank A.Ş.	1992	It was merged under the name of Bayındırbank A.Ş. on 30 September 2002
Türk Ticaret Bankası A.Ş.	1913	It was liquidated on 9 August 2002
Türkiye Emlak Bankası A.Ş.	1926	It was transferred to Türkiye Halk Bankası A.Ş. on 6 July 2001
Türkiye İmar Bankası T.A.Ş.	1924	It was transferred to Sümerbank A.Ş. in 26 January 2001 and the license of to perform banking operations was revoked on 18 February 2001
Türkiye Tütüncüler Bankası Yaşarbank A.Ş.	1928	The Court decided for bankruptcy on 8 June 2005
Ulusal Bank T.A.Ş.	1985	It was merged under the name of Sümerbank A.Ş. and the license of to perform banking operations was revoked on 20 May 2001
Yurt Ticaret ve Kredi Bankası A.Ş. (Yurtbank)	1993	It was transferred to Sümerbank A.Ş. in 26 January 2001 and the license of to perform banking operations was revoked on 18 February 2001
Iktisat Bankası T.A.Ş.	1927	It was merged under the name of Bayındırbank A.Ş. on 5 April 2002

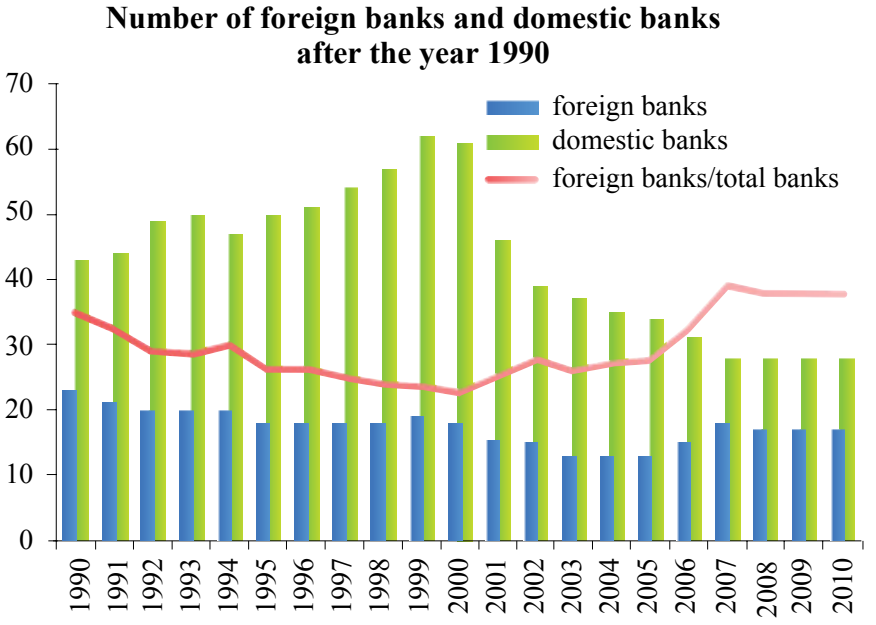
Source: 50th Anniversary of The Banks Association of Turkey and Banking System "1958-2007", The Banks Association of Turkey, March 2009

3.11. Increasing Share of Foreign Participation

Successful transition from the collapse of 2001 to "*a well-functioning market economy*" as declared by the EU a couple of years ago has led to an increasing trend of foreign participation in the Turkish banking system. Against all odds, foreign capital injection to the Turkish banks gained increasing phase through take-overs, mergers and acquisitions.

Actually, the main reason for this interest was not without the future profitability prospects. It was the low base of financial intermediation compared to its European peers. Underdeveloped financial service provision was also reflecting the future potential. Many foreign investments came first through capital markets and later through mergers and acquisitions. Fresh investment empowered banks to strengthen their capital base further and helped expand their services to more lanes, without eroding their balance sheets. The interest was basically for banks in the early stages but insurance sector came next, which has been helping to create a diversification within the financial sector as well. The figure below exhibits the rise in the share of foreign participation in the Turkish banking system.

Figure 6



Source: Turkish Banking Association

3.12. Strong Resistance to Global Crisis with no Loss

As the Turkish economy has been a small open economy since 1990 and managed to survive many hurdles including 1994 and 2001 crises, the struggle for sustainable financial system resilience proved successful during the difficulties brought by the global financial crisis influencing the financial landscape since 2007. There has been no single penny injected to any financial institution that has lost its capital base. All the cost paid to create a strong and self-sufficient liberal financial system tested positive during these challenging times.

Compared to the problems surrounding the financial stability outlook from Japan to the US financial system following the global financial system, observing the unending scenarios surrounding the future survival of Euro that brings into question whether Eurozone financial stability is sustainable and thinking of the all resources injected through unconventional monetary policy instruments in those monetary areas, the resilience of the Turkish financial system has been a historical event that has never been experienced since modern central banking became operational in Turkey from 1970. It was a unique event that even the financial market fragility is so strong globally, resistance of the domestic financial stability proved to be phenomenal.

It is the argument of this paper that the fruits of reforming the financial system to increase its resilience to domestic and external shocks are a welfare enhancing strategy for any country and Turkish experience is the best proof for this argument.

3.13. Privatization and Future Outlook

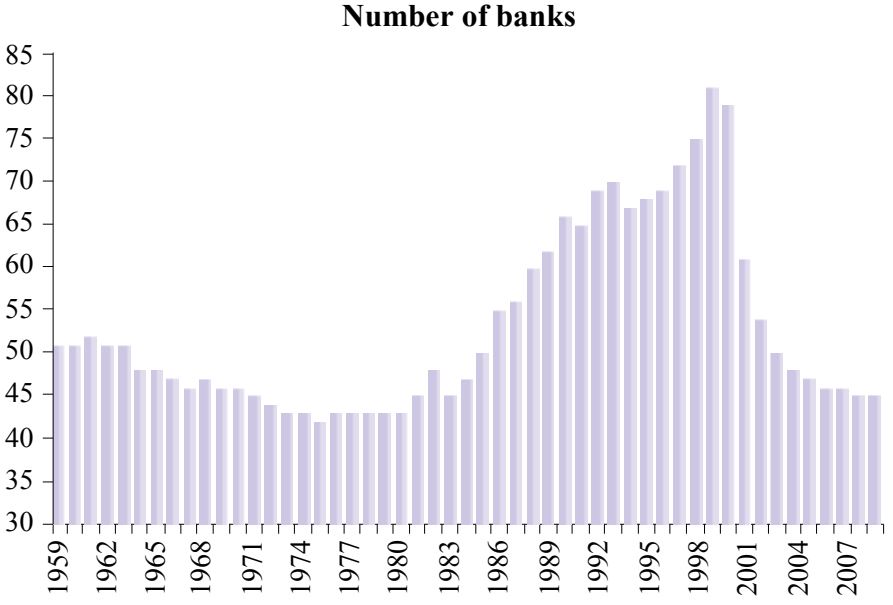
All the sufferings especially in the peripheral and southern Europe did not lead to an unmanageable resolution demand in Turkey in 2011 as well. One thing that is obvious from this resilience is that the financial system is ready to face future challenges that national and global economic conditions will bring in the near future. Lessons of the past should only help in the future difficulties and luckily better crises management skills that have forcefully accumulated in the Turkish financial system since 1920s seems to be an obvious advantage in the current paradigm.

The next step may seem to increase the depth of capital markets especially in terms of effective and efficient forward and future markets to help lowering the cost of risk management. Also, recent agenda includes privatization of public banks in order to further decrease the dominance of public involvement in financial service provision. Human capacity built up and internal audit specialization inclusive of enhancing good governance and upgrading corporate social responsibility skills would be future challenges.

Turkey is still on the road to the European Union convergence process. It may be argued that a sustainably successful and profitable financial system in Turkey may only contribute future welfare enhancement in the South-Eastern Europe as well, which would be taken as shock absorber for the region if the recent initiatives to support Istanbul as a global financial centre proves successful.

Below figure is a good summary of the long road that the Turkish banks experienced since 1959.

Figure 7



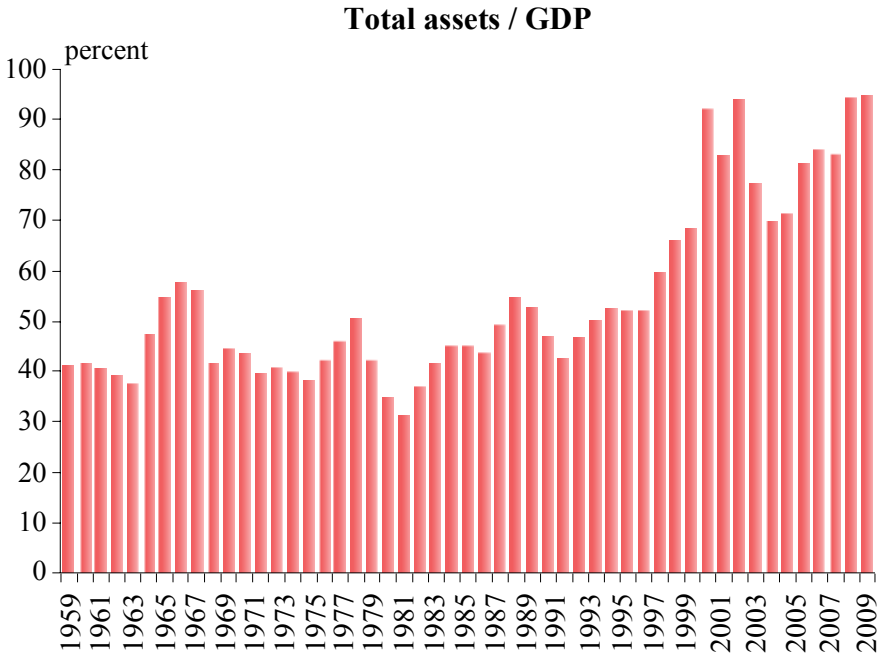
Source: Turkish Banking Association

3.14. Additional Indicators about Turkish Banking System

This section provides a couple of figures to summarize some of the trends that the banking system exhibited from 1959 up until 2009. All the data was derived from the Banks Association of Turkey statistical documents.

The share of total asset of the banking sector in gross domestic product is generally accepted as one of the main indicators of financial deepening. The following figure exhibits that financial deepening has got a clear phase especially after 2000s in Turkey, which was the end of a long running fiscal dominance.

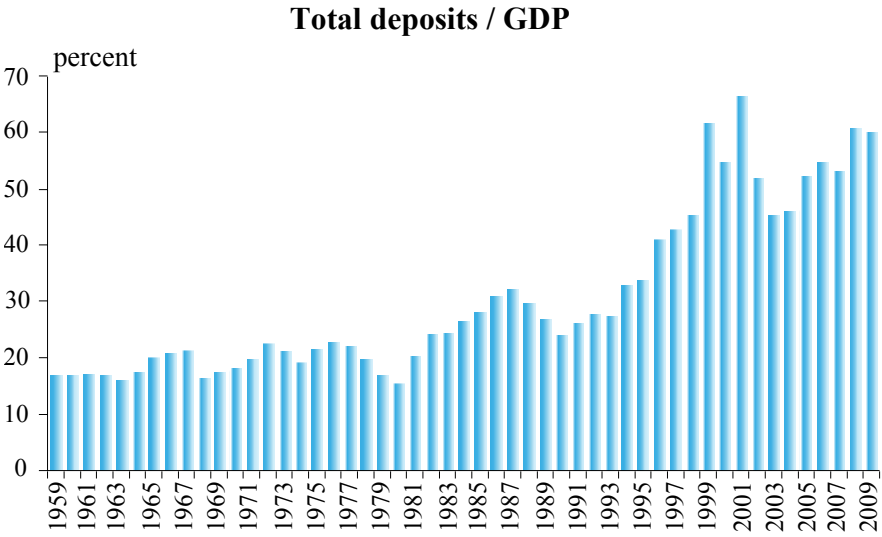
Figure 8



Source: Turkish Banking Association

Another financial deepening indicator that deserves an attention is the share of total deposits in gross domestic product in Turkey. The following figure indicates that financial deepening was stimulated at the beginning of 2000s.

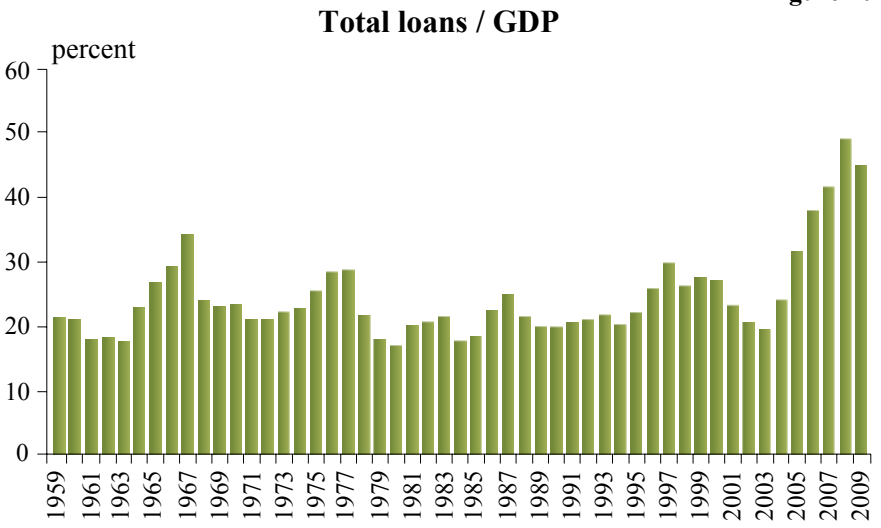
Figure 9



Source: Turkish Banking Association

Our last indicator for the financial deepening is total loans to GDP ratio. Although early charts indicated that the financial deepening stimulated after 2000s, the same trend is not observable in the figure below. This might mainly be stemming from the crowding out effect of the government sector in the economy before disinflation process till 2000s.

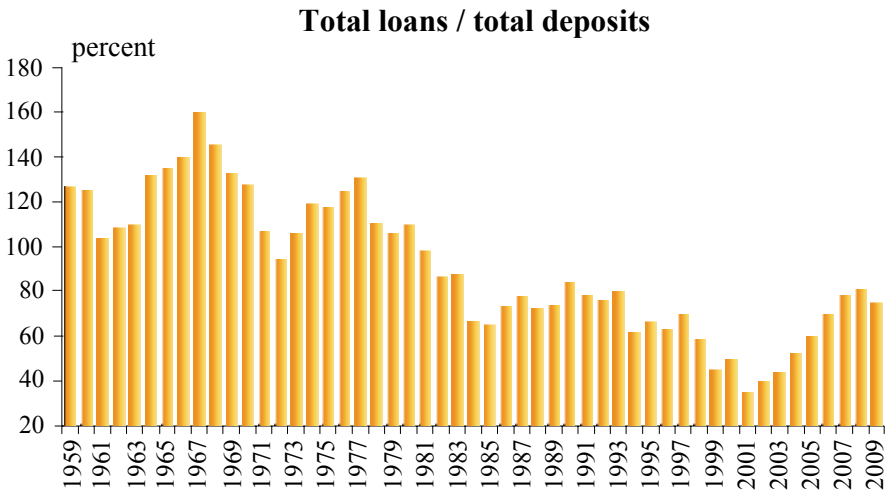
Figure 10



Source: Turkish Banking Association

Until 1980s total loans were much higher than deposits in the sector because of high level of other liabilities item in the aggregated balance sheet of the sector. Main financing source of the banks in those years were not the deposit base, which was increasing all sort of fragilities.

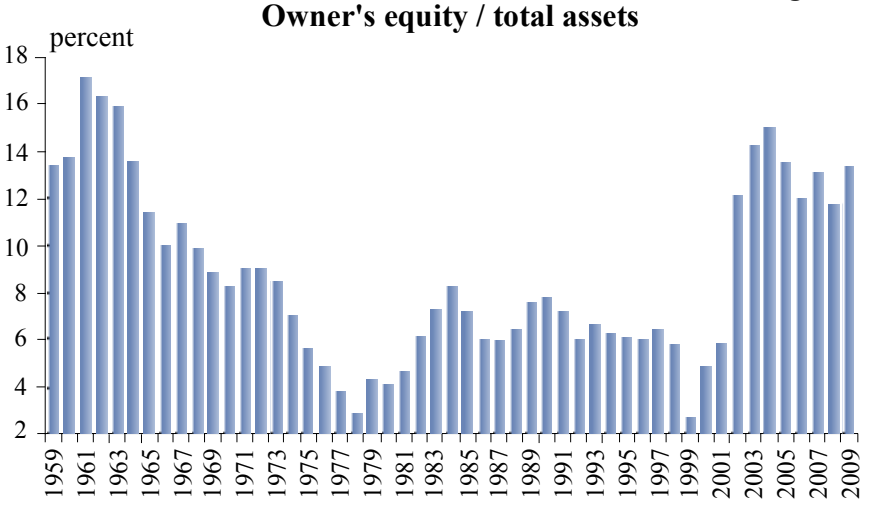
Figure 11



Source: Turkish Banking Association

As a capital adequacy indicator, owner's equity in total assets has been relatively on a higher plateau after 2001 crisis mainly driven from the recapitalization and restructuring.

Figure 12

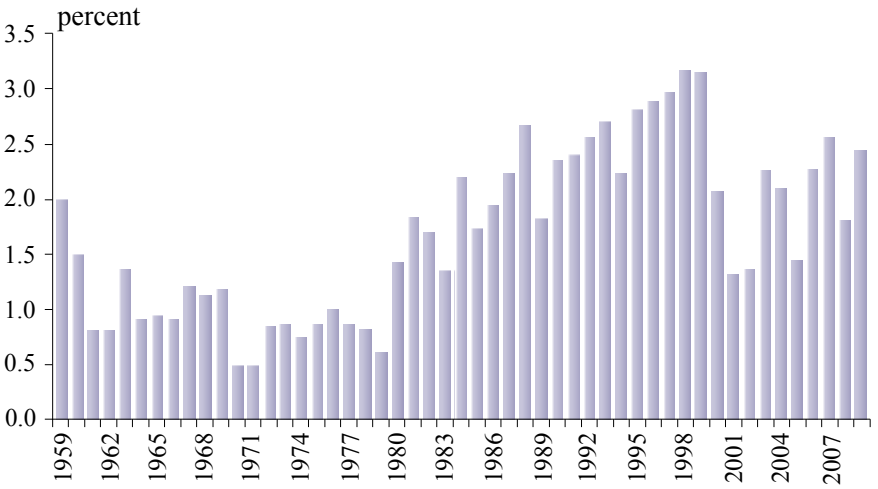


Source: Turkish Banking Association

The profitability of the banking sector, which was exhibited in the following figure, suffered a fall down in 2001 economic collapse. 1980s were the years of high real interest rates because of high and volatile inflation in Turkey. Since the high level of the public borrowing requirement led the high profits in the banking sector which financed the government's in that period.

Figure 13

Profit (loss) / total assets



Source: Turkish Banking Association

4. Conclusions and Recommendations

This paper investigated monetary policies and banking institutions in Turkey in order to drive some lessons from the past. Maybe the first lesson is that it takes time to develop an efficient and effective two tier banking system if there is no reliable human and capital capacity to support the evolution of the financial system. The second lesson would be the parallel linkages between developments. It seems that it is almost impossible to have an optimal central bank with all the ammunition for price stability when the intermediation to support transmission by the banking system is not resilient and vice versa.

Another lesson was the critical importance of a societal agreement to be reflected by the political stability to functionalize the market forces in terms of relative price determination and optimal price discovery by the market forces. Interventionist strategies such as etatism "or statism" proved

to be a failure from the experience of Turkey. Even if the Chinese strategy to use 5 year plans as the main tool for macroeconomic management seems to be serving Chinese citizens well at this particular moment in time, it may be argued from the Turkish experience that they will have further challenges especially in the long run. This argument takes into account the differences or similarities of two countries and argues that market mechanism seems to work more effectively compared to other alternatives at least from the Turkish experience point of view.

It also seems relevant that instead of trying to be excessively creative in terms of central banking and financial service provision, sometimes it might be more productive or more welfare enhancing to keep things to the basics with lower leverage and conservative expansion or the so called narrow banking. This lesson was quite relevant for the reflections from the mirrors of the global financial crises that have been influencing the world financial architecture since 2007.

Monetary policies and banking institutions in Turkey are still in the evolution process. Basically, the Central Bank of Turkey faces challenges to sustain price stability by also incorporating financial stability in the medium to long run into the reaction function. Banking institutions are also facing a challenging future surrounded by all sorts of events not only in the Eurozone but also in the US and Japan. The evolution seems keep going and it seems that a strong capital base with high level of good governance standards can only ease potential future pains that might arise from global contagious fragilities and only provide gains to the society that they serve not for now but in a sustainable way for the future as well.

It may be argued that the future of the central banking and banking institutions in Turkey will be lying on the parallel evolution for the better performances that relies on each others' successes. Gains on the fight against high and volatile inflation supported the deepening of financial intermediation and markets, which has been creating more profitability, enhancing higher capital adequacy standards. This, in turn, allowed a more effective and efficient monetary transmission mechanism, which was decreasing the risk premium, as well. On the final analysis, any decrease in the risk premium is a social gain to support welfare creation.

Before concluding this paper, it may be worth to underline one giant lesson from the global financial crises with relevance, not only to Turkey but to all emerging markets including South Eastern economies: once it was a huge hype on financial engineering and financial deregulation. There was too much emphasis on the free working of market forces to maximize social welfare. This has been proved wrong right now. That`s why, efficient and effective regulation and supervision became a "must" to support financial stability ant to limit risk taking. Nationalization of losses from the systemically important intermediaries and tax payers reaction to capital injection to banks have been bringing additional sensitivity for today's decision makers including central bankers and commercial bank managers. The stake is high and the cost of success may only be reduced if lessons of the past are taken carefully, which is a rare case, indeed.

References

Akgüç, Ö. *100 Soruda Türkiye'de Bankacılık*, Extended Second Edition, Gerçek Yayınevi, İstanbul, 1989.

Gormez, Y. *The Evolution of Central Banking in Turkey*, National Bank of Bulgaria, Conference Proceedings for the First Annual SEEMHN Conference, 2006.

Gormez, Y., Yilmaz, G. *The Evolution of Exchange Rate Regime Choices in Turkey*, National Bank of Austria, Conference Proceedings for the Second Annual SEEMHN Conference, 2007.

Gormez, Y. *Banking in Turkey: History and Evolution*, Bank of Greece Working Paper Series No. 83, 2008.

Gormez, Y., Yigit, S. *The Economic and Financial Stability in Turkey: A Historical Perspective*, National Bank of Serbia, Special Publications, Fourth Annual SEEMHN Conference, 2009.

Kazgan, H. *Osmanlı'dan Cumhuriyete Turk Bankacılık Tarihi*, The Bank's Association of Turkey, Istanbul, 1997.

Kocabasoglu, U., Sak, G., Sonmez, S., Erkal, F., Gokmen, Ö., Seker, N., Ulugtekin, M. *Türkiye İş Bankası Tarihi,* Ankara, Türkiye iş Bankası Yayınları, 2001.

Parasız, İ. *Türkiye Ekonomisi, 1923'ten Günümüze İktisat ve İstikrar Politikaları*, Ezgi Kitabevi Yayınları, Bursa, 1998.

Tezel, Y.S. *Cumhuriyet Döneminin İktisat Tarihi (1923-1950)*, Tarih Vakfı Yurt Yayınları, İstanbul, 1994.

Zarakolu, A. *Cumhuriyet'in 50. Yılında Memleketimizde Bankacılık,* Ankara, Türkiye Bankalar Birliği Yayını, No. 61, 1973.

The Banks Association of Turkey *50th Anniversary of the Banks Association of Turkey and Banking System 1958-2007*, March 2009.

BULGARIAN ECONOMISTS DURING THE GREAT DEPRESSION

Nikolay Nenovsky[*]

Abstract

In this paper, I have dealt with two main issues: the first one is to provide an answer to the question of how the Bulgarian academic community interpreted the Great Depression, in what theoretical models Bulgarian economists thought and the practical solutions they offered. This has involved elaborating typical elements leading to their theoretical and practical models, highlighting the specific Bulgarian interpretation of depression and the contribution of Bulgarian economists. And most importantly, what made them gradually realise the structural characteristics of the crisis. The second aim is to identify the main channels, the main factors leading to the formation of these models and of the Bulgarian knowledge of crises and depressions.

The paper is organised in five chapters. The first chapter offers a brief survey of the Bulgarian economy and political developments prior to the Depression. The second, respectively, presents the Bulgarian economic thought on the eve of the Depression grouped in five intellectual traditions. The third chapter offers two main models of interpretation of the Great Depression (cyclical and structural), as well as different forms of the structural model. The last two sections explain the evolution of economic thinking following the main phases of the crisis (deflation/agrarian crisis and monetary/banking crisis). The final section discusses the specificities of the Bulgarian interpretations of the Great Depression and provides some concluding observations.

Keywords: History of Economic Thought, Great Depression, Balkans Economies, Bulgaria

JEL Classification: B10, B20, B30, N13, N14, G01

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1. Introduction

My ambition is to elaborate two main issues. The first issue deals with the question of how the Bulgarian academic community interpreted the Great Depression, in what theoretical models Bulgarian economists thought and what practical solutions they offered. This is achieved by elaborating typical elements leading to their theoretical and practical models and emphasizing the specific Bulgarian interpretation of depression. The second issue involves identifying the main factors leading to the formation of the Bulgarian knowledge of crises and depressions. One channel touches primarily on the role of the economic and social reality in that period, another deals with the sources of intellectual and theoretical concepts forming the theoretical baggage of Bulgarian economists, the schools and ideas that influenced them.

The paper is organized in five chapters. The first chapter offers a brief survey of the Bulgarian economy and political developments prior to the Great Depression. The second chapter presents the Bulgarian economic thought on the eve of the Great Depression grouped in five intellectual traditions. In the third chapter I have given two main models of interpretation of the Great Depression (cyclical and structural), as well as different forms of the structural model ("German planning", "Keynesian discretion", or "Marxists revolution"). The last two sections explain the evolution of economic thinking in relation to the main phases of the crisis (deflation/agrarian crisis and monetary/banking crisis). In the final section, I discuss the specificities of the Bulgarian interpretations of the Great Depression and provide some concluding observations.

2. Bulgarian Economic and Political Developments Prior to the Depression

The Balkan Wars (1912/1913) and the First World War (1914/1918) put a severe strain on Bulgarian economy and finance. Under the Treaty of Neuilly (27 November 1919), Bulgaria had to pay a huge foreign debt and above all reparations which came to a quarter of the national

income[1]. Inflation ("expensiveness" [*skapotia*] – the term used by the Bulgarian economists at that time to describe price hikes) was soaring and the national currency *lev* devalued heavily (26.65 times over an extended period of years 1912-1923 (Toshev, 1928, 116, 172).

Public finance was entirely upset as for the period 1916-1918 the budget deficit was about 1.5 bill gold *levs* and the central bank (Bulgarian National bank – BNB) financed almost all war expenditures of the government (Ivanov 1929, 139). The trade balance between 1919 and 1929 was at a deficit except for three years, with the surpluses far too small to make up for the negative balance in the rest of the period (Svrakov, 1941, [1936], 300). As a result, the banknotes in circulation increased around 14 times and the coverage fell down to 3.2 percent of the gold banknotes and to 5.9 percent of the silver ones. The public debt and particularly the "flying debt" reached perilous amounts. Between the close of 1918 and the end of 1922, even before reparation payments began on 1 October 1923, foreign debt service reached 112 mill gold francs or 16.3 percent of budget spending. Reparations under the Treaty of Neuilly were added to this debt, coming to 2,250 mill gold francs at 5 percent annual interest over 37 years plus occupation expenses representing a quarter of the national wealth of the economy. French claims on Bulgaria were about 26 percent of overall external Bulgarian debt (next in the creditors' list of Bulgaria was Italy (25 percent), followed by Greece (12.7 percent) and Romania (10.55 percent). The external debt was 96 percent of the public debt as the reparations represented 9/10 of the total external debt (Koszul (1932, 40).

In spite of its difficult situation, Bulgaria made immense efforts to keep a record of "good" debtor who not only bore the debt burden on its own shoulders but also did not obtain any preferential debt relief (Ivanov, 2001). The convertibility of the lev was *de facto* interrupted at the beginning of the wars (10 October 1912) and the law suspended the unconditional government financing during the wars in January 1919. It was assumed that the break of the convertibility rule would be temporary. Later, Bulgaria as a whole lost significant sums through having its reichsmark assets blocked in

[1] *On Bulgarian economic development in the 20th Century, see Avramov (2001) and on economic discussions in this period see Kolev (2009).*

German banks and subject to sharp value falls. Since these marks represented part of the coverage for Bulgarian money, this brought another blow to the lev.

As in other European countries, financial stabilisation was conducted in the context of orthodox monetary ideology, which saw a stable currency and balanced public finances as the basis of economic development[2]. The Law on the BNB dating back to 20 November 1926 was regarded as a serious step in the stabilisation process of the *lev* which constituted the convertibility of the *lev*, thus enhancing the accomplished transition to the gold-exchange standard. According to Article 8 of the Law the coverage ratio of the banknotes was designated to 33 1/3 percent as it was proposed to target 40 percent. Although this law defined the coverage of the banknotes in circulation, it did not fix the exchange rate to gold, i.e. the gold content of the *lev* was not yet determined. With the Stabilisation Law (of 3 December 1928) the *lev* was finally and legally pegged to gold as the exchange rate of "92 *Levs* per 1 gram of pure gold" was laid in Article 1. In further details, accounting also for the BNB commissions, the exchange rate of 139 *levs* per US dollar equalled 139 *levs* per 1½ grams of gold (which is the gold content of the dollar).

Bulgaria's economic development could not be viewed in isolation from the political and social processes (for more about Bulgarian history see Crampton, 2007). In March 1920 the elections were won by the Bulgarian Agrarian People's Union (*Bulgarski zemedelski naroden sayuz*, *BZNS*) led by Alexander Stamboliyski who was in office for three years (1920-1923), made a systematic attempt to apply the main principles of agrarianism and overcome the country's isolation. Stamboliyski's regime too rested on authoritarian methods and political repressions (his "Orange Guard"). On 9 June 1923 a coup d'état was staged (by the Military Union led by Ivan Vulkov); Stamboliyski was killed and subsequently a government was formed led by the economist Professor Alexander Tsankov (as a representative of the newly established Democratic Alliance Party (*Demokratichen sgovor*)). As a reaction to this rightist overthrow, the September uprising (*Septemvriysko vastanie*) broke out (September 1923) sparked off by the ideas coming from the USSR of a

[2] *See Nenovsky (2006), Koszul (1932).*

new left revolutionary wave in Europe. The uprising was atrociously suppressed and in 1924 Tsankov's government adopted a law on the protection of the state against terrorists and revolutionaries and the Bulgarian communist party was banned. The communists responded with the St. Nedelya Church bomb attempt on 16 April 1925; 150 people were killed in the attack and the Tsar survived by a mere chance.

The Democratic Alliance was in power until 1931 with a more-democratic faction forming within led by the economist Andrei Lyapchev who too formed a government in 1926. It was during Lyapchev's term of office that Bulgaria overcame its financial isolation, the two loans – the Refugee Loan and the Stabilisation Loan – were granted, the lev stabilised and the economy registered growth. A note should be made here that the two prime ministers, Alexander Tsankov and Andrei Lyapchev, were economists actively involved not only in developing the country's economic policy, but also in the theoretical discussions of that time, which will be examined further below.

The economic upsurge was halted by the Great Crisis; the democratic parties forming the People's bloc (*Naroden blok*) coalition (Alexander Malinov and Nikola Mushanov) won the elections. Subsequently, they were in power from 1931 to 1934. In 1932 Alexander Tsankov launched his People's Social movement much in the vein of the authoritarian regimes in Europe, Mussolini's above all. On 19 May 1934, a military coup was staged, which put an end to the short democratic period and marked the beginning of the autocratic reign of Tsar Boris (political parties, Alexander Tsankov's party including, were banned). Despite the desire for neutrality and the numerous political manoeuvrings, Bulgaria was gradually drawn, economically, financially and politically, into the orbit of Germany and the rest of the revenge-seeking countries, and in March 1941 Prime Minister Bogdan Fillov signed in Vienna the country's accession to the Tripartite Pact.

3. Bulgarian Economic Thought on the Eve of the Depression

The Bulgarian economists were not at all many and were mainly concentrated in Sofia, Varna and later Svishtov, where higher schools of learning were located, in some state institutions such as the Bulgarian

National Bank, the Ministry of Finance, the National Statistics Institute, as well as in some private banks. Especially active was the Bulgarian Economic Society (established in 1895 and closed in 1949), which acted as centre of numerous discussions and issued its own monthly Journal of Bulgarian Economic Society (JBES) – *Spisanie na balgarskoto ikonomichesko drujestvo* (usually 10 booklets per year) released for the first time in 1896.

In the period 1929-1938 a second economic society was established (the Society of Academic Economists), which set forth to resolve, in its proclamation documents at least, tasks of more theoretical nature. The Economic Thought journal (Ikonomicheska misal) came out in four issues per year. In my view, however, neither the authors (most of whom went down unnoticed), nor the articles in the journal came close to the needs of theory and in some respects those of the Bulgarian Economic Society were even less so.

In 1935, with the help of the Rockefeller Foundation, a Statistical Institute for Economic Research at the Sofia University was established (with Oskar Anderson as its director), which became a major centre of quantitative and business cycle analyses of Bulgaria's economy and brought together many talented young Bulgarian economists.

For analytical purposes, we can classify the Bulgarian economist into five groups.

The first group (A) comprises the older generation economists (Georgi Danailov, Boncho Bonev, Alexander Tsankov, Andrey Lyapchev, Yanaki Mollov), immersed in and sharing the liberal theoretical postulates of the classical political economy, with some admixture of influence from the German historical school, and an inclination to periodising the economic evolution. Most of them graduated economics and law in Germany or Russia. The classical school was perceived in through the prism of its German variant or the Russian interpretation, which was characterised by different types of syntheses (such as Mikhail Tugan-Baranovsky, Peter Struve, Sergey Bulgakov, and others). These economists were involved in economic policy and state affairs from very early. They viewed government as an important economic actor, although theoretically they did not ask themselves why it should be so. One interesting statement by Lyapchev, judging about Ivan Geshov's theoretical and practical views, goes like this:

> *"Probably Geshov's practice could have been luckier, had he not succumbed to the historical school in political economy, because by assigning too much significance to individual events the weaker minds are misled to such an extent that they lose hold of natural common sense and start using in their practical activities parallelisms instead of casting light on the path by way of general principles".*
>
> (Bobchev, 1933: 540).

This statement of Lyapchev speaks more of his views on the method, and less of Ivan Evstatiev Geshov's outlook whose leanings, I think, were less toward the historical school than to classical political economy. Based on recollections of Geshov himself, he was under the strong influence of John Stuart Mill, and even attended Jevons's lectures during his long stay in England.

Later, most of the economists from this group came under the influence of the marginalist school, which quickly spread across Europe. This, however, happened through other theories and a number of theoretical syntheses (such as that of Tugan-Baranovsky). If we need to express this in figurative terms, in microeconomics these scholars were proponents of the classical school, while in macroeconomics and in economic policy – of the German historical school. Accordingly, these positions kept them away from having a special theory on crises and depressions as such issues were rarely an object of the theories they shared since it was generally assumed that economy is self-balanced.

The second group (*B*), which comes close to the first one, includes the more prominent proponents of the historical school, the theory of protectionism and the role of state, even though they shared as a whole the principles of liberal economy. These were scholars, in whose economic theories the classical theory component diminished, starting earlier and at a much faster speed. Most of them graduated in Germany, to mention a few names such as Konstantin Bobchev, Georgi Svrakov, Stancho Cholakov, Stephan Bochev, Hristo Peev, Todor Kalinov, Dinko Toshev, and Kiril Nedelchev.

According to Kiril Nedelchev:

> *"…the late Professor Werner Sombart would often stress in his lecturing that the goal of the economic science is to teach us think economically and that nothing is more dangerous than our wish to apply in its entirety pure theory into practice. [...] there is no such thing at all as an eternal, fixed and best economic system. In life – that is, practice – everything is relative and evolutionary; therefore in the field of political economy every phenomenon should be regarded as something new and transient, i.e., the general economic principles are limited in time and space. Hence, the conclusion that when resolving economic tasks one needs account for the conditions existing in a given place and at a given point of time." [...] the Bulgarian economy also has its specific conditions, which we should at all times bring to the foreground when examining our economic tasks".*
>
> (Nedelchev, 1941: 11).

The above two groups of economists (*A* and *B*) looked highly upon Werner Sombart, particularly in the last phase of his creative development when he proclaimed the so-called directed, planned and social economy, and organised his visit to Bulgaria in the period 25 October – 2 November 1932 as well as numerous translations of his works. The same group of economists (notably K. Bobchev) organised the visit of the Romanian professor and politician Mihail Manoilescu in 1933. It would be curious to note that Georgi Svrakov, although under Sombart's strong influence, was perhaps the most exhaustive and, in my view, the prime promoter of Keynes's ideas and his "General Theory" of 1936 (Svrakov, 1938).

The third group of scholars (C) includes exclusively proponents of the subjectivist school and of the methodological individualism in its Austrian variant, who consistently applied its methodology (Simeon Demostenov, Dimitar Mishaikov and Naum Dolinsky, at least in the beginning). Naum Dolinsky reviewed Boris Bruzkus's book "Die Lehren des Marxismus im Lichte der Russischen Revolution" issued in German in 1928 in Berlin, which was subsequently popularised and issued with a foreword by Hayek who expounded the fundamental economic

infeasibility of building planned economy and socialism in Russia (Dolinsky, 1930). Dolinsky emphasised the book's relation to Ludwig Mises's („Gemeinwirtschaft", 1922) and Peter Struve's ("Economy and price"), („Hoziastvo i cena", 1913) ideas. Most of the authors from group B, especially Demostenov and Dolinsky, virtually did not take part in the practical life and remained armchair scholars. As to crises, while not presenting special studies, they nevertheless shared the approach of the monetary explanation of over (and mal) investments as genetically induced from the types of goods and the structure of the investment process. One remarkable and original figure in this group is Simeon Demostenov who was an exceptional authority on the history of monetary theories and proponent of the Austrian school. He criticised and developed further the Austrian theory of money and value along many lines (his theoretical exchanges were mostly with Carl Menger and Ludwig von Mises). Demostenov was the author of the original theory of monetary universals ("Universale monétaire", general concepts and categories of money), which determine the global-to-national money ratio, as well as the author of the functional interpretation of money as a "universal and immediate instrument of demand". In the summer of 1913, while still a Russian citizen, he worked in Menger's private library and most probably during that stay he attended Carl Menger's private seminar.

The fourth group of scholars (*D*) mostly consist of the younger generation, whom we could conditionally call monetarists and quantitative economists (Slavcho Zagorov, Assen Hristophorov, Ivan Stefanov, Assen Chakalov, Zhelyo Burilkov, Nikola Stoyanov, Assen Kemilev, and Assen Ivanov). For their greater part they were under the influence of quantitative methods and the newly emerged business cycle analyses. Assen Hristophorov was among the few Bulgarian economists who studied at an English university (The London School of Economics) and fell under the influence of economists in the vanguard of monetary theory and economic cycle (Hawtrey, Pigou, Canon, and later Keynes). Through Hayek, who was in that period very popular in England, he also took many ideas of the cycle from the Austrian school, which he applied at a later stage in relation to war economy and in analyzing the role of central bank monetary discretion (Hristophorov, 1943, 1946). Slavcho Zagorov, who studied in

Germany and was for a period of time director of the Bulgarian Statistics Institute, was in correspondence with the leading econometricians of that period and published an article about the prices in USA in the Journal of Political Economy (Zagoroff, 1934).

The above economists were, under various forms, under Oscar Anderson's (1887-1960) influence in the institute run by him. Famous economists – specialists in business cycle analyses, visited the institute: Oskar Morgenstern, for instance, held two lectures in April 1935. The famous Russian economist and white émigré Peter Struve, who worked in Belgrade at that time and was not exactly specialist in business cycle, also had to hold a lecture on the topic. To the majority of the economists from this circle the problems of the crisis were genetically related to those of the cycle; crises were seen as a phase of the cycle, as not fundamentally structural, not systemic, and ones that could also be understood and analysed in quantitative terms. Certainly, the strong influence from the new German theories of the new phase of directed economy and Bulgaria's inclusion into the German economic zone could not but impact their publications and analyses.

The last and fifth group (*E*) includes the proponents of Marxism in its more orthodox forms, such as Karl Kautsky, Rosa Luxemburg, Hobson and Lenin's theory of imperialism, or Hilferding's financial capitalism. A prominent figure here is Dimitar Blagoev (1856-1924), the founder of Marxism and first translator of Das Kapital in Bulgaria. Among the names in this group I would mention Vassil Kolarov, Hristo Kabakchiev, Georgi Bakalov, Georgi Dimitrov, Todor Pavlov, Todor Petrov and G. Toshev, although most of them were not professional economists, but basically jurists or political figures associated with Soviet Russia. In 1933, during Werner Sombart's visit to Sofia, Ivan Stefanov (under the pseudonyms N. Kovachev and V. Borisov), Jacques Nathan, and Sava Ganovsky published a critique of Sombart from the standpoint of Marxism. These economists had thorough knowledge of Marx's theory of value and added value, of its laws of economic and social evolution and formations. They were familiar with Rosa Luxemburg's new studies on capital accumulation and Vladimir Lenin's works on imperialism. Crises in this model were seen as genetic extension of the contradictions of capitalism expressed in concentrated form as a contradiction between

"the social character of development of productive forces and the private capitalist mode of appropriating goods," between overproduction and under-consumption of workers who do not obtain the full product of their work, as well as the increase of the organic composition of capital and the different types of disproportions between sector I and sector II.

4. Two Interpretations of the Depression: Cyclical and Structural

In most general outlines, the two major interpretative models could be formulated as follows: the first one viewing the crisis as a natural point in the development of the market (as agricultural in the beginning) and as a cyclic and transitory phenomenon, with no need for interference from the outside in the market mechanisms and forms of private property (we could refer to this model as a **cyclical model**); the second model interpreting depression as a fundamental structural breaking leading to irreversible long-term changes both purely technologically and in terms of the mechanisms of economic coordination (we could call this one **structural**). Both the reasons that called forth a crisis as well as its mechanisms at a particular level correspond to the philosophy and spirit of the two models. The first model dealt with market issues, agricultural or other markets, and the descriptions fell within the framework of prices and quantity movement. The second approach saw, beneath the movement of prices, a deep change in the character of the economic processes and dislocation of global economic and political balances.

For analytical purposes the cyclical model could be split into two variants, both of these presuming that there is no need to intervene in the market process. The first one was more descriptive and empirical, and in the vein of the Mitchell and Burns' efforts to build different indicators capturing the business cycle development. The second variant was represented by the monetary interpretation of the business cycle in the spirit of the Austrian school.

The structural model in turn also took different forms. Leaving aside the Marxist variants, two other forms appeared. The German and Italian directed economy model came first chronologically and regarded intervention by state more in political and moral terms stressing the urgent need for regulating the supply side of the economy through

nationalisation and protection of national industry. Sociologically, the state in this model was considered as an incarnation of the national spirit and as a class pacificator. To the extent this model rapidly transformed into totalitarian forms, the Keynesian model was established. The Keynesian model declared the need for preserving democratic principles. The economic side of this model was oriented more to demand side manipulations through deferment methods (monetary and fiscal) but always based on scientific and technical models and statistical measurements. In short, while the German-Italian model of planned economy could be referred to as *political* or *moral* (at least as intention) the Keynesian model of managed economy could be called *scientific*.

At the onset of the crisis the cyclical model was followed by most of the economists from group *A*, *C* and *D*, as well as by some of the economists from group *B* (historical school). The second structural model was followed by the majority of the historical school representatives (group *B*) and the Marxists (group *E*) with both having their own interpretation of developments: the first in a strongly evolutionary vein, and the second – seeing the birthing of a new communist system.

Over time, as the crisis intensified most of the scholars of the cyclical interpretation (*A*, *C*, and *D*) evolved in the direction to a structural understanding of the depression, except for a few of the most radical representatives of the subjective school *C*, Simeon Demostenov being one such example.

The change in the perceptions of crises was gradual and with certain twists and turns as Bulgarian economists had to take clear positions with regard to Marxist assertions of private property abolishment and building a socialist society. This could be clearly seen for example in an article by Todor Kalinov (Kalinov, 1932, 26-27), where he states the dilemma: "cyclical interpretation or socialist theories", and while disinclined to accept the Marxist theses, he nevertheless admits that:

> *"[...] it seems that the principle of unlimited free competition as a panacea for curing economic crises and in general for directing economic life appears nowadays to be already an anachronism, a relic from the past".*
>
> (Kalinov, 1932: 25).

Kiril Nedelchev, in his turn, is definite:

> *"Neither freedom, nor equality can ensure the order needed for the economic development of nations. In fact, the world has never seen full freedom and full equity. Pure capitalism, just as pure communism, is only a fiction, a utopia, because they can not create order, and order means subordination: there is no creativity without order".*
>
> (Nedelchev, 1941: 13).

Konstantin Bobchev, who was to become later a major mouthpiece of the models of directed economy and protection of Bulgarian industry, in the beginning of the big crisis was still sceptical about the possibilities the state could command in economy. Having defined various types of "economic imbalances and economic contradictions" in relation to the mismatch between demand and supply (Bobchev, 1932, 56-57), he observes that the state was giving faulty signals by trying to hold back prices from falling:

> *"And in this mechanism, instead of doing away with weaknesses, the state aggravates them further: when prices start falling – a signal that production must be cut down – the state starts looking for artificial measures to keep prices high and continue production at previous levels; and when a given production has favourable outlooks to grow, the state starts by every means possible to encourage it, rather than guard it against extremes".*
>
> (Bobchev, 1932:58).

As mentioned earlier, the assertion of the structural model inevitably led to its breaking down into sub-models and to radicalisation of the positions within the main alternatives. Thus, for instance, the Marxists (group E) assumed extreme revolutionist interpretations of the depression. The rest (A, B, C, and D), in turn, evolved toward acceptance of the Keynesian model (further developed into his General theory) while looking for an alternative to the German model of planned economy and the Marxist and Soviet interpretation of the historical moment. This direction of evolution was followed by Georgi Svrakov, Slavcho Zagorov, Assen Hristophorov, etc. As mentioned earlier, Zagorov and Svrakov were the first to

introduce Keynes's ideas. To the very last (or until his immigration at least) Slavcho Zagorov remained loyal to the quantitative theory of money despite Keynes's criticism. An evidence of this is Zagorov's theoretical article which came out in 1935 under the title: "System and level of prices", where he examines the relationship between relative prices and the overall price level. The article is an indication of the fact that Zagorov held the dichotomy of the classical model as proven, in full contrast with the outlooks of the Austrian monetary school developed in that period, which proclaimed that such distinction is not possible, and money is not neutral.

Assen Hristophorov, in his turn, having set an example of quantitative analyses of conjuncture 1934-1939 in his book "The business cycle in Bulgaria, 1934-1939" (Hristophorov, 1939), later in his book on the political economy of war (Hristophorov, 1943), despite the subtitle "Theory of war-time economic conjuncture" was clearly on the path to analysing the deep, essential changes occurring in the economies during that period. To Hristophorov, war economy in its various phases follows different stages toward irreversibility with regard to more intervention from the state. In conclusion he says:

> *"Because even a complete turn to economic and political liberalism could not eradicate the morals from the experiment with the war-time capitalist socialism or stamp out the economic and social benefits for the general population during the war-time period, which brings the regime of centrally planned and managed war economy close to the respective regime in the collectivist socialist economy. Times change..."*
>
> (Hristophorov, 1943: 364).

The views held by Bulgarian economists on depression followed closely the different phases of Depression. Two of them were crucial – the agrarian crisis and the monetary devaluations.

Agrarian Crisis: from Cyclical to Structural Interpretations

In 1928/1929, prices of agricultural products began falling sharply on the international markets, which worsened the revenues from the Bulgarian

exports (Lyapchev 1930, Tsankov, 1932)[3]. On the Commodity stock exchange markets in Varna and Burgas grain prices fell more than 50 percent (Bliznakov, 1931, 287). This threatened foreign reserves and respectively the servicing of the huge external debts. The price developments cancelled plans for liberalisation of foreign trade and measures for trade and exchange controls were strengthened. Thus followed the 1928 Wine Export Promotion Act, the 1932 Grape Export Promotion Act, and the 1935 Meat Export Promotion Act. In 1931 an Export Institute was set up, transformed into the Foreign Trade Institute (Institut za vunshna turgovia) in 1940. Earlier, in 1930 the Food export agency (Hranoiznos) was established and vested with monopoly powers to buy and trade cereals as a specific tool against deflation. Because of the negative price gap between buying and selling prices, losses were accumulated and transferred to the budget. Initially half, and subsequently a quarter of the payments to farmers were in treasury bonds representing domestic government debt, which amounted to around 400 million gold leva (Berov, 1989, 465).

The fall of agrarian prices made the Bulgarian economists refer to the crisis as agrarian since their focus was on the falling prices. Thus, for instance, Yanchulev (1930, 245-246) in his report, read in March 1929, says:

> *"The agrarian crisis [...] in general is seen as such a state of agricultural commodity prices whereby the farmer is not able to cover with his incomes the costs of running his farm in addition to tax and other social burdens".*
>
> (Yanchulev, 1930: 245-246)

In quite a similar vein were the analyses of the other economists (Lyapchev, 1930; Dolinsky, 1931; Tsankov, 1929) with debates going on about whether this was a crisis triggered by overproduction and protectionism in the USA and Canada or, alternatively, by a decline in the purchasing power in Europe due to the reparations and debts owed to the States, in the spirit of some proto-Keynesian analysis of efficient demand. Although most Bulgarian economists considered the crisis imported, an opinion was gradually formed that purely internal reasons also existed – such as the deformity and one-sided development of the Bulgarian rural

[3] *On the mechanisms of the agrarian crisis, see also Robbins (1934), Hautcoeur (2009).*

economy (strong swings back and forth between tobacco and grain), its fragmentariness and lack of machinery, and the artificial growth of credit (see Tsankov, 1932). Yanchulev went on to say: "The agrarian crisis in Bulgaria is therefore cyclical and structural" (1930, 262), and again on another occasion: "An expansion of credit in both the village and town could breed nominal owners, thereby entailing vastly perilous consequences for the petty peasants" (1930, 272). Dolinsky (1931, 27-28) saw the reason for the crisis "lying deep in the soil of the national economy" with the international situation only speeding up its emergence". He believed that "organizationally and technically the Bulgarian rural economy is in sharp discrepancy with its socio-economic character", plenty of work force and little capital, Dolinsky (1931, 30-32). Yanchulev held the view that the export of agrarian products should be organized by producers themselves, through either co-operations or unions, and not through the state.

Andrey Lyapchev (1930) made an interesting *à la fois* sociological and quantitative, and from modern perspective, political economy analysis of who benefits and who loses from the fall in prices. He was a liberal who believed that the main reason for the short-lived decline in prices was precisely because they were over a long time and artificially maintained at abnormally high levels. As Laypchev points out, those prices in 1928 were by 50 percent higher than pre-war levels, and the decline was therefore natural. He was against prices being centrally set by the state, because:

> *"if the state takes it on itself to determine prices, the outcomes are clear: production would be slack because guarding as the state may be, it will still hold to low prices".*
>
> (Lyapchev, 1930: 501).

Lyapchev sets forth the basic liberal principles:

> *"the individual is entitled to demand from the state to protect his life, but not to guarantee him profits"; "does the happiness of the people sit in low or in high prices? – I think it's in low prices"; "the state must be in the position of one who would substantiate his needs, rather than in the position of someone who would take more and then give charity".*
>
> (Lyapchev, 1930: 503-506).

The redistributionary processes in the Bulgarian economy held much similarity to the analysis of the so-called *price scissor*, i.e. the mismatch between prices of agricultural goods (export mainly) and prices of industrial goods (import mainly) (Bobchev, 1934). The former fall, while the latter stay at a given level and even go up. This keeping of industrial prices at a level was explained with the existence of cartels and the protectionist policy of the state. Many economists tried to outdo each other in constructing indices suited to measure this gap (remarkable in this respect were the studies of some representatives of the Statistics Institute).

The agricultural crisis was seen in a much wider context, mainly in relation to its consequences for the country's trade balance and its ability to raise foreign currency proceeds to service foreign debt. Telling in this respect was Dolinsky's article (1932), where he specifies the upper cause-and-effect chain and terms the crisis "structural", not "cyclical". According to the end result of his calculations (forecasts of the export volume and a burden of payments – interest and annuities), Bulgaria was unable to service its obligations and had to, at least for some time ahead, suspend payments.

On the other hand, an active discussion began of the possible consequences for the debt burden, the danger of bankruptcies, social turmoil, and of undertaking a set of measures to counteract the fall of agrarian prices, as well as debt reliefs for the peasants (the so-called tax bonds). A number of authors noted the mechanisms of debt deflation, later on conceptualised by Keynes (1931) and Fischer (1933). The approaches here were hesitant, and although these reliefs were not approved at first (see the counter-arguments by Dolinsky, 1931 and the criticism of the laws proposed by Zagorov, 1933), over time they came to prevail and two laws were adopted. The laws enacted were the Farmers Protection Act and the Debtors Relief Act. Iliya Palazov rightly observed the existence of what we would call today asymmetry of information and moral hazard on part of debtors when debts are remitted on a general basis (Palazov, 1932, 214-215). The same mechanism of anti-selection in lending was mentioned by Bliznakov (1931, 293).

Palazov (1932) advised that BNB should reduce the discount rate, which, as he believed, it kept high in an effort, unfortunately ineffectively, to attract foreign capital, and recommended an individual approach to debtors instead of general debt cancelation. The debts were to the state-owned banks (BNB, Bulgarian Agricultural Bank, and Bulgarian Central Co-operative Bank) of around 5.5 billion gold leva, to private banks (foreign and 134 Bulgarian banks) of around 5.8 billion leva, and to cooperative societies (212 popular banks (populyarni banki) and 1386 agricultural credit co-operative societies) of around 4.1 billion gold leva, or a total of 15.4 billion gold leva (Palazov, 1932, 206). As to the debts of peasant farmers alone, these, according to Tsankov (1932, 11-12), were around 9 billion gold leva, of which circa 75-80 percent were owed to public credit institutions, and 92 percent of this amount was a short-term debt. According to him again, around 20 percent of this debt was a debt to make a living. Tsankov saw the situation of citizens as equally hard, or 142 gold leva debt per capita. Palazov (1932) did not miss to mention the strong demagogy and partisan bias of promises for total debt remission to attract maximum voters and in passing bills in Parliament.

To resolve the agrarian crisis it was also relied to some extent on international cooperation within the frame of the so-called Agrarian bloc where a "monetary normalisation fund" was proposed to be set up to ensure a normal inflow of capital from the European periphery. The Agrarian bloc was established in 1930 and held one of its meetings in Sofia in 1931. The Conference in Stresa in September 1932 became a much discussed and analysed event (for example Stoyanov (1933) who mentions Keynes's ideas of one-off agreed inflation or reduction of monetary coverage). Bulgarian economists were hesitant to take sides on the issue of monetary reform, vacillating between the choice to support the British ideas of currency devaluation and intensification of the crisis on the one hand, and the French insistence on the gold standard, on the other.

The Bulgarian economists did not specifically elaborate this episode of US financial market and the banks' failures; this, nevertheless, provided them with a ground to delve into their interpretations of the crises as structural and global (Tsankov, 1932).

5. Monetary and Banking Crisis: The Structural Model Prevails

The decisive phase of the Great Depression period was the banking crisis in Austria and Germany, which led to a currency crisis of the sterling pound and its devaluation in the summer of 1931, and of the dollar in early 1934. The crises of those two main currencies began to bear directly on Bulgaria and thus became the subject of numerous analyses (Delaisi, 1933; Robbins, 1934).

Generally, at that time countries used independent strategies to adapt to the crisis. Three blocks were formed: first group countries devaluating their currencies (United Kingdom, the USA, and for example Bulgarian neighbour Greece (1932); second group countries maintaining the gold standard, with France in the lead, and conducting strict deflationary policy to limit wages and prices growth; and, finally, third group countries preserving exchange rate parity and exercising strong exchange control (Germany, Italy, Hungary, Austria). Bulgaria joined the third group, being sceptical of the foreign trade liberalisation measures recommended by the 1927 Geneva Conference. Bulgaria continued to maintain the fixed exchange rate and its convertibility, and after the devaluation of the US dollar in 1933 the lev was fixed to the French franc. After the devaluation of the franc in 1936, the Governing Council of the BNB continued to maintain the fixed exchange rate arguing that :

> *"we are not directly hurt by these devaluations and at the moment there is no need of certain adjustment measures, and our export will follow its own way".*
>
> (BNB, 2004a, 557-562)

The devaluation of the main currencies made Bulgarian economists finally begin to treat the crisis as deeply fundamental, and most importantly, as having numerous manifestations. The range of analyses increased. The basic range of issues, apart from the explanations of the currency crisis, were narrowed down to monetary issues, exchange rate and trade control, the condition of the banking system and the need for its regulation; providing stimulus for the national industry through protection for the national economy, and Bulgaria's external debts servicing.

The above topics were not only the result of the serious problems confronting Bulgaria's economy, but they were also provoked by the development of western thought and "attacked" with the instruments of modern western theories. These were mostly the new theories of managed or administrated social economy, which placed at the core the role of state and government (incarnation of state power) as a mediator and supreme arbitrator between the antagonistic social classes and groups. Under different variants, this model was popular in Germany and Italy and was concretely examined in a number of economic papers. It was not accidentally that in this period, for the purpose of popularisation and winning recognition, the Bulgarian economists invited renowned scholars, among whom Werner Sombart (1932) and Mihail Manoilescu (1933)[4]. During that period a number of Italian scholars visited and had their works translated such as the jurist Giorgio Del Vecchio (visited Sofia in May 1934) and the politicians and jurists Giuseppe Botai and Alfredo Rocco (translation of their book in 1934).

The reasons for the crisis and depression were sought in the deep economic and political disequilibria speeded after WWI and the peace treaties, something which, incidentally, most Bulgarian economists, who were actively involved in the country's political life, never stopped repeating. One such example was Alexander Tsankov who considered global balances and flows of savings, investments, and gold changed, and industry going through deep technological transformation with machines becoming of mass use (Tsankov, 1929; 1932). To him:

> *"The crisis started already before the war and it, perhaps, could have grown to the same scale: so deep, horrendous and huge as it now is; the war however speeded up its progress".*
>
> (Tsankov 1932: 3)

As regards Bulgaria, Tsankov saw the dependency of small and peripheral countries on the centre, and in his recollections, he would say:

> *"Regrettably, small countries and in particular the countries on the Balkans have always been minor pawns, with which the big countries have balanced their accounts".*
>
> (Tsankov 1999 [1953]: 283)

[4] *See Bobchev (1933a), and Babulescu (2003).*

Later, in his memoirs written in Argentina, Tsankov would point out the difficulties in the geostrategic choice of the country, the split in Bulgarian identity:

> *"Our tragedy is our divided identity [...]. We, Bulgarians, harboured two souls, so to say, being Russophiles and Russophobes at the same time. [...]. In spirit and culture – close relatives, politically and socially – divergent."*
>
> (Tsankov, 1999 [1953]: 114)

Regarding the outlook for the economy and economic policy, Alexander Tsankov is clear:

> *"One thing, however, must not be forgotten; namely, that from now on the state as a representative of democracy and economic democracy in particular will tighten more and more its control and its governance in social life as well. This could perhaps be just an earlier phase to yet another reconstruction of the world; however, observing life we can say that state is interfering more and more by way of control and governance in all areas of life, especially in economic and social life (1932, 16); From now on the state will interfere. This is perhaps the new that we see coming".*
>
> (Tsankov, 1932:18)

In the keynote speech of Democratic Alliance (*Democraticheski sgovor*) movement, held on 12 June 1932, Tsankov demonstrated some of his old principles of the historical school by saying that despite the positive that he found with Italian fascism and Hitlerism, we should look for our own specific Bulgarian model of managed state economy. In his view:

> *"We will do what we can and will try, in accordance with the soul of the Bulgarian people and its political, economic and international position, to create our own genuine, home-spun Bulgarian movement…" "Capitalism however will prevail. The question is what form, what new forms it will take in order to provide new stimuli for human progress.", "[...] to encourage reconciliation between workers and capitalists through the mediation of the state."*
>
> (Tsankov 1932a)

Monetary regime became the main topic of analysis and controversy, rekindling to some extent the debates from the period before the stabilisation of the lev about the level of the lev fixing and the level of money supply coverage. There was a wide consensus among our economists about the need to retain the old lev parity despite the devaluation of the main currencies and our neighbours' currencies. Indeed, with time pro-devaluation ideas did sneak in, but this happened at a later stage. As an alternative to devaluation and deflation, the Bulgarian economists began to actively analyse the possibilities of exchange control and the future monetary and non-monetary mechanisms within the frame of the German zone.

In analysing the devaluation of the sterling pound and the Deutsche mark, Alexander Tsankov saw them as inevitable consequence of the movement and structure of monetary and capital flows globally, largely attributable to debts and reparations. According to him (Tsankov, 1932, 7), having received its reparations from Germany, France hoarded reserves, which, through England, were once again recycled in Germany in the form of short-term loans from British banks. And as these funds were invested in long-term projects in Germany, when confidence declined the British banks could not claim back their receivables from Germany. This undermined the sterling pound. Although gold was a significant factor of economic development, it was still a "fetish", and its uneven distribution among individual countries was noxious.

The fragile chain of monetary payments between countries due to the crisis, as exposed by Tsankov, was close to the schema proposed at the same period and later by different western authors (as for instance Delaisi, 1933, Baudin, 1937 among many others).

The leading Bulgarian economists concurred on the benefits and advantages of the gold standard internationally and at home, which continued even after the devaluation of the French franc in 1936

(as mentioned above, Bulgaria practically never devaluated[5]). In sync with these positions was the support bestowed by our economists to the French orthodox monetary theories of Charles Rist and Bertrand Nogaro in their debate with the proponents of the "guided currency [*upravliavanata moneta*]", mainly promoted by British economists (including Hawtrey and Keynes) (see Kalinov, 1932, Mollov, 1935). Especially clear on this point was for instance Lyubomir Yankov who was against an eventual devaluation of the franc, and this being already a fact (according to his calculations a devaluation of some 25-35 percent) – he regarded it as catastrophe. In his view:

> *"Will a depreciation of the French franc put an end to these concerns? Certainly not. [...]. A balanced policy of saving conducted in a peaceful environment is an absolute must for public credit to recover. Any other orientation would only fatally lead to a "guided currency", much as illusionary the advantages of such a monetary system could be." (380); "Raymond Poincare's franc collapsed as a result of disrupted state finances" (494). "National currency devaluation always brings with itself relief to debtors and loss to depositors and creditors".*
>
> (Yankov, 1936: 505)

A similar conservative attitude to devaluation was held by another economist, Assen Ivanov, BNB Governor, who published two articles placing foremost importance on the key role of savings in exiting a crisis (Ivanov, 1933, 1936). To him:

> *"Devaluation may only be likened to an injection made to an ill person to alleviate the pain for a few hours, to soothe him for a while"; "Whoever is pleading today in favour of cheap money as a means of boosting up the economic life in our country, is wrong. Cheap money and devaluation cut both ways, and if they are not properly manipulated, there is the danger of ending in losses rather than achieving good results".*
>
> (Ivanov, 1936: 582-583)

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[5] *Germany and Hungary also never devaluated officially. Although Romania also kept the exchange rate parity, in 1936 it devaluated de facto when revaluating its gold reserves, adding the 38 percent premium (Blejan and al., 2009). The questions whether or when the country gave up some of the characteristics of the gold standard are methodologically very difficult to answer. Some authors suggest this occurred when the exchange rate control was introduced, usually in 1931/32; the gold exchange standard was de facto abandoned, because the free movement of gold was limited (Wandschneider, 2006).*

Assen Ivanov not only described the technical problems of the losses resulting from devaluation (including the role, which in modern terms would be "the theorem of critical elasticities" of foreign trade), but he was also definitely in favour of encouraging savings rather than demand. As we already know, this was the watershed of the disputes held at that time. The same conservative view was held by Assen Chakalov, who however saw the salvation for Bulgaria lying in foreign exchange restrictions and protectionism:

> *"Although the devaluation of the French franc, the Italian liretta and other currencies do create certain difficulties for debtor countries in relation to their trade development, and especially for their exports, they are nevertheless in a position to keep their system by means of protection premia on exports and boost the development of their economy"; "Fluctuations in the value of the national currency are always dangerous and create obstacles to the normal functioning of the economy".*
>
> (Chakalov, 1936: 600 -603).

At the same time, there were some shy attempts to look positively on a devaluation, as well as attempts to study and spread the idea of the "guided currency [upravliavana moneta]". In this respect, worthy of mention are young Assen Hristophorov's allusions in one of his first articles where, after his stay in London, he described the consequences of the devaluation of the sterling pound and the dollar, saying:

> *"Because all things considered, it is not the vastness of the gold reserve stock at the central bank, but the internal and external economic equilibrium, which guarantee the stability of the national currency unit. [...] In an eventual devaluation the fear of a fast, strong and speculative pick up in wholesale prices and a rise in the cost of living in general is ungrounded. [...] a possible devaluation of the coins of the gold bloc would have a faster and more efficient impact on domestic prices than in the case of the English devaluation".*
>
> (Hristophorov, 1935: 261).

The subtitle of the article ("Deflation or Devaluation") indicates that it was directly influenced by the numerous publications on this subject, including by Keynes[6]. It might be interesting to note that two years later, after the devaluation of the franc, in one of his articles Hristophorov (1937, 234) clearly mentioned the pick up in prices in France (22 percent, which was higher than in other countries) with devaluation already a fact. There again, and in one next article about the state of global conjuncture, Hristophorov explicitly underlined the fast development of virtually all countries after devaluations, by implicitly stating his view that gold is "chains" to economic development (similar to Keynes's and Eichengreen's interpretations).

Zhelyo Burilkov, a BNB deputy governor, made an exhaustive and particularly extensive analysis of the new theories and techniques of the Central Bank, where though implicitly, the discretionary monetary policy was given a support (Burilkov, 1934). It is interesting that Burilkov sided with the economists who believed that monetary policy is a science and theory, and not only art, practice and experience. (The analysis presents the ideas of Hawtrey, Keynes, Wiksell, Cassel and Fischer. Keynes is not clearly distinguished from the rest, and the LLR function is not explicitly mentioned (the article speaks about the "*bank of banks*") although some of Bagehot's views are introduced).

If we should summarise the arguments, which Bulgarian scholars upheld against devaluation and deflation, and in support of exchange control, these could be narrowed down to the following: First, as already mentioned, Bulgaria was a debtor country which considered debt service a key priority. In fact, Bulgaria was an extremely diligent payer who pursued to preserve its reputation through debt service. Due to its political isolation after WWI, however, its endeavours as a good payer were not recognised and it had to shoulder its liabilities with almost no relief (Ivanov, 2001, 2004). In his speech marking the BNB's 50th anniversary, then-prime minister Andrey Lyapchev said, "one would be hard put to find quite such a young nation in quite such exacerbated circumstances as ours these past fifty years, yet one which can boast that it has ever occupied the position of an exemplary payer to its foreign creditors" (BNB, 2001,135). With respect to structure, Bulgaria's debt

[6] *For more information see Rist (1933), Baudin (1937).*

was denominated in gold backed leva and was mostly owed to non-devaluing countries. According to The Royal Institute of International Affairs, "in Bulgaria it is almost certain that the transfer question has predominated" (1936, 98) and the purpose of maintaining the currency on a gold basis "has presumably been to avoid an increase in the costs of the foreign debt service" (1936, 129). Even before reparation payments began in October 1923, foreign debt service reached the amount of 112 million gold francs in 1918 to 1922: 16.3 per cent of budget expenditure. This represented a quarter of the national wealth. Sterling devaluation offered some relief to Bulgaria since its debt was predominantly in pounds. Debt service now accounted for 11 percent of budget expenditure; there was no great BNB asset loss since a comparably small amount of assets was denominated in sterling. Summarising the opinions of many economists at that time, a hypothetical devaluation would certainly increase national debt burden, while any possible advantages would be marginal (Sarailiev, 1937, 27).

Second, the balance of payments constraints were particularly tight, and not only with regard to foreign debt service. The prices of agricultural products, which accounted for the major part of Bulgarian exports, fell sharply on international markets and aggravated the terms of trade. The September 1932 Stresa Conference which focused on possible assistance to Southern European countries (a major part of the so-called 'agrarian bloc') noted that the price drop reached 70 percent (Bonnet, 1933, 21). A fund concentrating revenue from the sale of agricultural products to developed countries was proposed to be used as partial debt service (the United Kingdom vetoed it).

Third, systematic exchange control could be interpreted as a defence against restrictions introduced by Bulgaria's trading partners and their abandonment of the gold parity. The farming price drop was combined with a number of restrictions on the import of agrarian products to Germany and France with a view to protecting indigenous farmers through economic and political means (Raupach, 1969). Turkey, an important Bulgarian trading neighbour, also introduced some restrictions on Bulgarian imports. In April 1932, the drachma joined the devaluers' club and Bulgaria lost its competitive and long-standing positions on the Greek market.

The fourth and direct cause of exchange control was the intensification of capital outflow from Bulgaria at the end of 1931. In addition to this global imbalance, Bulgarian economists provided a list of long-term domestic factors like the purge and confiscation of capital claimed to be illegally accumulated during the Wars, and political instability, which certainly contributed to decreasing Bulgaria's capital accumulation and foreign reserves.

Also of interest in this period were the discussions of the banking dimension of the crisis. A known fact is that over the period 1931-1935 the number of banks declined from 131 to 98 due to failures and consolidation (Kemilev, 1936). According to Kiril Kossev's recent study (2008), the banking crisis in Bulgaria was one of the severest: only in the period 1929-1932 bank deposits decreased by 50 percent. Laying the foundations of banking supervision with the establishment of the Bankers Board (*Bankerski savet*) and the introduction of a range of accounting rules were a manifestation of recognising the need for a regulated financial system and the weaknesses of the free market. All these measures could be interpreted as manifestations of a general trend toward greater state interference in the economy and more active monetary policy.

As was already indicated, the last phase of the Great Depression was the disintegration of the world economy into several blocs with Bulgaria making its choice in favour of the Germany administrated area of influence. The exchange control, and later on the clearing treaties became a key monetary instrument in fighting deflation and crisis. A detailed account of the exchange control and clearings in historical perspective is given in Nenovsky and Dimitrova (2007). One of the most active group of Bulgarian economists among the five mentioned, the Marxists' group (*E*), was extremely active in this period, shaping one of the main traits of Bulgarian theoretical interpretations of the Great Depression. This group displays some worthy of note and curious features, which account for much of the specifics of the Bulgarian interpretation of depression from that period. For the lack of space, we cannot deal with the *Marxist structural reading* of the Depression here.

6. Concluding Remarks

The short overview of the ideas, theories and discussions among Bulgarian scholars from the time of the Great Crisis makes us think in a couple of directions at least.

First, the analyses of crises reflected the range of issues facing the country's peripheral economy, the agrarian prevalence and partially that of the food, wine and tobacco industries, the weak capitalisation of the agrarian sector and the underdeveloped heavy industry (machines in particular). This explains the paramount importance of the issue of falling prices, the price gap, the debts of Bulgarian peasants, artisans, tradesmen, etc. Because of this, significance was attached to building and protecting the indigenous industry, which largely conditioned the early appearance of elements of protectionism and exchange control.

Second, an important point, which was actually covered by all Bulgarian economists, was the role of the wars, the onerous reparations and the overall vulnerability of the Bulgarian economy from adverse external shocks. The external debts and the country's dependence on foreign economy and foreign capitals ("balance of payments constraints") were seen as major factors for the existence of external and domestic political factors in explaining the crisis of that period.

Third, in the monetary sphere the Bulgarian economists remained orthodox supporters of the gold standard and balanced public finances. Bulgaria continued to maintain gold coverage of the lev even after the franc devaluation in 1936. To a large degree, this was determined by the fact that the country owed large amounts of debt in reparations and many new loans, as well as due to purely political considerations of losing the vast voting majority in the event of devaluation. The difficulties accompanying devaluation and deflation made a third alternative, that of joining Germany's exchange control zone and clearing system, the only possible one.

Fourth, gradually realising that the crisis was neither cyclic nor conjuncture, as was initially believed, and under the sway of western theories, the majority of Bulgarian economists gradually worked out the elements of a new model of the so-called planned or directed social

economy, where the state was given an active role of a social arbitrator and a discretionary regulator of the economic cycle.

Fifth, as the view that the crisis was changing capitalism fundamentally gained ground, various diverging opinions formed within the new interpretation mainly dividing the views into supporters of the German model of planned economy, on the one hand, and upholders of the Keynesian discretion and active monetary policy, on the other. And although, to me at least, no fundamental differences existed between the purely economic mechanisms of the above two alternatives, the supporters of the German model viewed themselves as more totalitarian, while those in favour of the Keynesian regulation – as more democratic and scientific. In Bulgaria, two variants of planned economy dominated, the German one (which we examined), and a Marxist variant (not analyzed here), while the Keynesian ideas of structural changes found their way with much difficulty to emerge only when it became clear that the war would be lost.

The big crisis was a test of the viability of the different theories and their ability to explain, predict and offer economic solutions. Not by chance did the "fight" on this front of ideas become a major element of the fight between the representatives of different interests, either class or national. Especially aggressive in this respect were the Marxists, to whom the defeat of the "bourgeois" explanations of the crisis and the "reformist" models of planned social economy were a matter of life and death. The aim of the academic fights was to attract as many supporters to a given political cause as possible. The Bulgarian economic scholars were, for their greater part, involved in political, government or highly paid private activities; therefore, their policy and their interests could not be isolated from their theoretical analyses. Of course, there were many economists, armchair scholars mainly, who tried to analyse the processes objectively; these however were mostly an exception.

One thing however is obvious. The Bulgarian economists in their interpretation of the crisis and their concrete analyses, regardless of their positions and ideological biases, kept up a very high theoretical level. A closer look at what was done in the other countries during that period shows that the Bulgarian economists were aware of the seriousness of theoretical discussions and the need of professional attitude to research.

References

******* JBES – Journal of Bulgarian Economic Society (Spisanie na balgarskoto ikonomichesko drujestvo).

Avramov, R. *The Economic Century of Bulgaria*, Centre for Liberal Strategies, Sofia (in Bulgarian), 2001.

Baudin, L. *La monnaie*, Librarie de Médicis, Paris, 1937.

Berov, L. under editorship *Bulgaria's Economy until the Socialist Revolution*, Nauka i Izkustvo Publishing House, Sofia; (in Bulgarian), 1989.

Bliznakov, T. *Review of the Economic Policy in 1930*, JBES, 285-297; (in Bulgarian), 1931.

BNB *Motives to the draft law on the exchange rate and coverage of BNB banknotes with an attached text of the draft*, BNB, Collection of Documents, vol. 3, 1915-1929, doc. N 2: 55-56; (in Bulgarian), 2001.

Minutes of a BNB GC meeting containing a statement of Governor D. Bozhilov about the Bank's currency policy and the clearing treaties with some countries, and a decision for amendment of the general ordinance on import and export, BNB, Collection of documents, vol. 4, 1930-1947, doc. N 295: 557-562; (in Bulgarian), 2004a.

Bobchev, K. Internal Review: *Economic Policy in Bulgaria in 1931*, JBES, XXXI, 1, 39: 54; (in Bulgarian), 1932.

The Idea of Planned Economy and the Objectives of Today's Economic Policy, JBES, XXXII (4): 197: 216; (in Bulgarian), 1933.

Bobchev, K. *The Discrepancy between Prices of Agricultural and Prices of Industrial Products*, JBES, XXXIII (4): 203: 250; (in Bulgarian), 1934.

Bobulescu, R. *Protectionism in Retrospect: Mihail Manoilescu (1891-1950)*, Brazilian Journal of Political Economy, 23 (4) (92): 114-123, 2003.

Bonnet, M. *The Economic Reconstruction of Central and South-Eastern Europe*, the Royal Institute of International Affairs 1931-1393, 12 (1): 19-36, 1933.

Burilkov, Zh. *The External Loan and Today's Problem of Financing Bulgarian Economy*, JBES, XXXIII (3): 135-151; (in Bulgarian), 1934.

Chakalov, A. *The International Economic Conference in Bulgaria*, JBES, XXXII (4) 282: 303; (in Bulgarian), 1933.

Monetary Reforms and Morals, JBES, XXXV (10): 585:603; (in Bulgarian), 1936.

Cramton, R. *A Concise History of Bulgaria*, Cambridge University Press, 2010.

Delaisi, F. *La batail de l'or*, Payot, Paris, 1933.

Dolinsky, N. Knizhnina Publ. Prof. B. Brutzkus, *Die Lehren des Marxismus im Lichte der Russischen Revolution*, Verlag H. Sagk. Berlin, 1928, JBES: 512-515; (in Bulgarian), 1930.

Crisis in Bulgarian Agriculture, JBES: 27-36 (in Bulgarian), 1931.

Hautcouer, P. C. *La crise de 1929*, La Découverte, Paris, 2009.

Hristophorov, A.

External Review: the Crisis and Stabilisation of Coinage. Deflation or Devaluation, JBES, XXXIV (4): 252-261; (in Bulgarian), 1935.

External Review: *Development of the World Economic Depression, Economic Conjuncture Abroad in 1936*, JBES, XXXVI (3): 231-242; (in Bulgarian), 1937.

Development of the Business Cycle in Bulgaria 1934-1939, Works of the Statistical Institute for Economic Research at the Sofia State University, issue 1-2; (in Bulgarian), 1939.

Introduction to Political Economy of War. Theory of War Economic Conjuncture, Zadruzhen Trud Printing House, Sofia; (in Bulgarian), 1943.

Central Banks and Modern Business Cycle Theories, Annual of the State Higher School of Finance and Administrative Sciences, Sofia, vol. V, year 1945/1946; (in Bulgarian), 1946.

Ivanov, M.

Political Games with the External Debt. Bulgarian Versions of Economic Crises and Upswings, 1929-1934, Zlatyo Boyadzhiev Publ., Sofia; (in Bulgarian), 2001.

Ivanov, A.

Address by BNB Governor Assen Ivanov during the ceremony marking the 50th anniversary of BNB foundation, GDA, CM, Archives Talk, BNB, Collection of Documents, vol. 3, 1915-1929, doc. N 22: 136-144; (in Bulgarian), 1929.

Economy and Money, JBES, XXXII (1):10-18; (in Bulgarian), 1933.

Cheap Money, JBES, XXXV (10): 577-584; (in Bulgarian), 1936.

Kalinov, T. *The Economic and Credit Crisis*, JBES, XXXI (1): 24-38; (in Bulgarian), 1932.

Kemilev, A. *Internal Review*: Banking in Bulgaria in 1935, JBES, XXXV (7), 415-429; (in Bulgarian), 1936.

Kolev, S. *The Great Depression in the Eyes of Bulgaria's Inter-war Economists*, Bulgarian National Bank DP N 79, 2009.

Koszul, J. *Les efforts de restauration financière de la Bulgarie* (1922-1931), Félix Alcan, Paris, 1932.

Kossev, K. *The Banking Sector and the Great Depression in Bulgaria, 1924-1938: Interlocking and Financial Sector Profitability*, paper presented at the SEEMHN conference, Athens, March 2008.

Mollov, D. *Can We Reach 1929 Price Levels Again?*, JBES, XXXIV(1): 28-32; (in Bulgarian), 1935.

Nathan, J., Grigorov, K., Berov, L., Mechev, St., Trendafilov, T. *History of Economic Thought in Bulgaria,* Nauka i Izkustvo Publ., Sofia (in Bulgarian), 1973.

Nedelchev, K. *Objectives of the Bulgarian Economy*, Poligraphy Publ., Sofia; (in Bulgarian), 1941.

Nenovsky, N. *Exchange rates and inflation: France and Bulgaria in the Interwar Period and the Contribution of Albert Aftalion (1874-1956)*, Bulgarian National Bank, 2006.

Nenovsky, N., Dimitrova, K. *Exchange rate control in Bulgaria in interwar period: history and theoretical reflections*, Bulgarian National Bank Discussions Papers, No.61, 2007.

Palazov, I. *The Debtors' Relief Issue*, XXXI (4):205- 224; (in Bulgarian), 1932.

Raupach, H. *The Impact of the Great Depression on Eastern Europe*, The Journal of Contemporary History, 4 (4): 75-86, 1969.

Sakarov, N. *The Stresa Conference*, XXXI (10):597-617; (in Bulgarian), 1932.

Sakuzov, I. *The Economic Development of Bulgaria until the Christianisation*, JBES, XXXIV (3):149-171; (in Bulgarian), 1935.

Sarailiev, G. *Monetary Devaluations and Their Effect at Home and Abroad*, Sofia; (in Bulgarian), 1937.

Stoyanov, N. *Reparations and Inter-Allied Debts. Bulgarian Government Debts*, Sofia (in Bulgarian), 1933.

Stoenescu, V., Blejan, E., Costache B., Iarovici A. *Foreign Exchange Regime in Romania between 1929 and 1939*, National Bank of Romania, 2009.

Svrakov, G. *On Autarchy (What is this and why is it wanted?)*, Varna Higher School of Commerce Annual (1934-35), VIII: 1-42; (in Bulgarian), 1936.

The Reasons for Unemployment in Highlighting Economic Theory (from Sismondi to Keynes), Varna Higher School of Commerce Annual (1936-37) (in Bulgarian), 1938.

The Royal Institute of International Affairs *The Balkan States: a Review of the Economic and Financial Development*, Oxford University Press, London: Humphrey Milford, 1936.

Toshev, G. *Foreign Currency and Foreign Currency Policy: A Scientific Inquiry into the Reasons of the Economic Crisis*, Franklin Cooperation Printing House, Sofia; (in Bulgarian), 1928.

Tsankov, A. *Economy and Economic Policy of Bulgaria*, JBES, XXVII (10): 517-546; (in Bulgarian), 1929.

Economic and Social Crisis, JBES, XXXI (1):1-5; (in Bulgarian), 1932.

Bulgaria in Turbulent Times, Prozorets Publ., Sofia; (in Bulgarian), 1999 (1953).

Our Course, A Keynote Speech by Prof. Alexander Tsankov in *Renesans* Theatre; (in Bulgarian), 2009 (12 June 1932).

Yankov, L. *External Review: The Monetary Issue in France*, JBES, XXXV (6): 372-380; (in Bulgarian), 1936.

Yanchulev, B. *The Agrarian Crisis in its International Manifestations and in Bulgaria*, JBES, XXIX (5): 245-272; (in Bulgarian), 1930.

Wandschneider, K. *The Stability of the Interwar Gold Exchange Standard: Did the Politics Matter?*, The Journal of Economic History, 68 (1): 151-181, 2006.

Zagorov, S. *Relieving Poor Agrarian Debtors and Strengthening Lending in Bulgaria*, JBES, XXXII (1): 1-9; (in Bulgarian), 1933.

Expansions and Depressions in Economic Life, JBES, XXXVII (10): 604- 615; (in Bulgarian), 1933.

Zagoroff, S. *The extreme depreciation of the dollar and its effects upon the price level in the United States*, The Journal of Political Economy, 42 (5): 641-653, 1934.

PAUL EINZIG AND THE INTERNATIONAL MONETARY REGULATIONS

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Abstract

Paul Einzig was born in 1897 in Brasov and came to London in 1919. From 1920, he began to write articles for scientific reviews, especially *The Economic Journal*, and became a regular contributor to *The Financial News*, *The Financial Times* and *The Banker*. Up to the time of his death in 1973, he had written many books, on diverse subjects but mostly related to monetary analysis and international finance. This paper discusses one of the most interesting topics in Einzig's monetary writings: what in practice are the respective properties of different possible external exchange regimes? Einzig offers a life's work of historical and analytical arguments to the reader interested in this question. He observes and comments regularly and in detail on the crises in and failures of different monetary arrangements. These observations and analyses are still useful at a time when, after many years of trust in the corner solutions (free floating and monetary unions) the international community is finding it necessary to elaborate regulations for the Eurozone policy-mix and to control excessive instability in international capital flows.

Keywords: Paul Einzig, Gold Exchange Standard, Free Floating, Romania

JEL Classification: B22, B26, E42

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1. Introduction

“His style is limpid, his ideas are common-sensical, his conclusions definite and clear. If he panders to popular tastes at all, it is by way of a certain over-emphatic dramatization of events. The strong white light he casts upon his characters causes them to throw shadows blacker than would appear by common day. But this is a fault altogether on the right side. We know exactly where we are with him, and allowances are easily made" (Robinson, 1936, p. 122).

In 1920, the Romanian Government withdrew the Austro-Hungarian Kronen and Russian Rubel denominations still circulating in the new *Romania Mare*, and defined the Lei notes as the country’s only legal tender. In London, J.M. Keynes and *The Economic Journal* agreed to a proposition by a 23 year old journalist on *The Financial News*, who had been born in Transylvania, to report the situation and analyze its consequences for the Romanian economy. This was Paul Einzig’s second academic intervention following a first short paper published in the *Economic Journal* on the attempt of the new Soviet Union to propose a means of exchange founded on labor-tickets (Einzig, 1920a). These two early short papers would be followed by many other articles published in *The Economic Journal* and elsewhere, some 60 books written before 1972 and approximately the same number of academic papers, in addition to his regular production as a columnist on *The Financial News*, *The Financial Times* and the *Commercial and Financial Chronicle*.

A century later, the paper written by Paul Einzig on monetary reform in Transylvania is still of great interest to readers. The author, in a direct style, relates one the most astonishing experiences of currency sterilization in the post-war period. New citizens from previous areas of Hungary were in possession of Austrian Kronen from the war and pre-war periods. Due to the economic uncertainty associated with Austrian defeat, the unofficial rate of convertibility of these Kronen in Romanian Lei was very low in Romania. Monetary reform was announced by the Romanian Government requiring holders of Kronen notes to declare the amounts they wanted to convert into Lei at the official rate, before this rate was announced. There was an incentive for note holders to declare these amounts: from the end of the conversion

period, the Romanian Lei would be the only legal tender for internal transactions. But given that an illegal rate was being applied to unofficial transactions, Kronen holders expected that the Kronen would progressively appreciate in Lei on the external market and would provide them with the opportunity of future conversion at an enhanced rate. The result was only a very small proportion of total Kronen holdings were declared to the authorities: simultaneously, some Kronen holders, less motivated by potential appreciation than by the desire to minimize their current losses in the conversion, decided to spend as much of their Kronen holding as possible before the date of conversion in the distribution sector. Thus, a small proportion of Kronen holders went ahead to convert them. The conversion was achieved in the following way: only 60 percent of the declared holdings in Kronen were converted immediately into Lei by the monetary authorities. The remaining 40 percent were exchanged against non-negotiable temporary receipts. Additional amounts were accepted for conversion –for the most part from shopkeepers and still against non-negotiable effects. Finally, around 60 percent of the Kronen previously in circulation were withdrawn against receipts, without any clear date of definitive conversion.

The most interesting part of Einzig's report was however still to come. Since 2 Kronen were exchanged for 1 Leu, and given the number of receipts distributed to former Kronen holders, the new price in Lei of the commodities fixed at one half of the old price in Kronen in Transylvania, corresponded to a decrease in the purchasing power of Kronen holders. Since this measure did not affect all the population uniformly, the Romanian conversion generated – at least in the short run – a negative effect of wealth to the detriment of former Kronen holders. But since the conversion rate of the Kronen was probably overvalued given the situation of the Austria at the time, this redistribution, macroeconomically speaking, was not so important and had the advantage of rapidly withdrawing all Kronen holdings from public or private circulation. These last comments are those of the author of the present paper not Einzig's, the latter being probably too young and too lacking in self-confidence to raise controversial questions at that moment, in *The Economic Journal*. Einzig would lose this shyness in the future. However, he had few occasions to write other academic papers on the

situation in South-Eastern Europe. The reasons are spelt out in his autobiography: "*The Economist*, after having published three of my articles, returned several of them, […] Keynes [as editor of *The Economic Journal*], too, rejected one or two of my articles. The explanation of this […] was simply that at this time there was very little interest in Britain in the current economic affairs of Hungary or Romania, and these were practically the only countries about which I was able to write with any degree of first-hand knowledge and authority. I had the monopoly of that market, but it was an extremely narrow market, and saturation point was soon reached" (Einzig, 1960a, p. 19). This is probably the reason why Einzig's first and last academic paper on the situation in the Balkan countries was written before he had obtained his French Doctorate.

Paul Einzig was born in 1897 in Brasov, Transylvania, at a time when this region was still a part of Hungary. He was educated at the Oriental Academy of Budapest where he began to work as journalist during WW1. He travelled to London in 1919 and was quickly taken on by *The Financial News* and achieved early editorial success with the publication of two articles in *The Economic Journal.* He was appointed Paris correspondent of *The Financial News* and continued in Paris to work on is *Doctorat* thesis at *La Sorbonne* under the supervision of Louis Germain-Martin. In 1923, he defended his thesis on the movement of prices in France from 1914, with Bertand Nogaro a member of his examining committee (Einzig, 1960, p. 40). He was appointed foreign editor of *The Financial News* in 1923 and continued a career in financial journalism, interspersed with articles published in *The Economic Journal* and other prestigious academic reviews. He met and corresponded with the best British economists – including Keynes, and began his prolific output of books. These included *The Theory of Forward Exchange* in 1937, which he made dynamic in 1961 with *A Dynamic Theory of Forward Exchange,* and numerous less ambitious volumes devoted to specific questions or events related to the successive monetary and financial systems he was to observe until his death in 1973. From 1939, he was a correspondent for *The Financial Times* and maintained continuous links with this review until he retired in 1956. During and after this period he continued to write books and articles, mostly on financial and monetary subjects but also on less predictable topics such as *The Economic Consequences of Automation* in 1956.

2. The Risks of Decentralized Management for a Common Currency

During the 1920s and early 1930s, the official international monetary regime was the Gold Exchange Standard. This regime was adapted by the US and approved by UK as soon as the UK announced its objective of a return to the gold standard for the pound at pre-war parity. When this was made effective in 1925, the US dollar and Sterling were considered equivalent to gold and were accumulated by Central Banks as reserve currencies. France, then Germany and progressively almost all European countries decided to leave free floating and to join the US and UK in an extended club of currencies pegged to gold, usually following a phase of stabilization and definition of a new international gold content in the national currencies. French stabilization, *de facto* from 1926, *de jure* in 1928, was the final step in a more or less regular depreciation from the end of WWI to 1925 that ended in stabilization and led to formal devaluation and a simultaneous return to external convertibility. The temporary success of the French *Franc Poincaré* for a few years maintained France in a better situation than other countries which chose deflation against devaluation in their return to gold, and overall better than the UK which was obliged to make the British pound inconvertible from 1931. The story ended with diffusion of the effects of the Great Depression, when France and those other countries whose Central Banks chose devaluation, were penalized for waiting too long before leaving convertibility.

In 1931-1932, between the suspension of convertibility in the UK and those countries that chose devaluation, France exploited a temporary commercial and economic advantage, making no attempt to adapt its monetary policy to the new conditions created by the difficulties in the UK. Analysis of this free riding French attitude became one of Paul Einzig's major preoccupations in the early 1930s. His 1932 book *Behind the Scenes of International Finance* (Einzig, 1932) was the first presentation of his views on the situation. The polemical style adopted by Einzig moves it out of the realm of scientific debate but allowed also a clear presentation of the arguments that Einzig frequently justified by carefully chosen stylized facts rather than quantitative data which was not available at that time. His central argument is quite simple:

"The financial warfare conducted by France in order to acquire political power over Europe has largely contributed to the development of the economic depression since 1929, and has been the direct cause of its accentuation during the second half of 1931 into a crisis without precedent […] It was the French gold-hoarding policy which brought about the slump in commodity prices, which was the main cause of the economic depression; that it is the unwillingness of France to co-operate with other nations which has aggravated the depression into a violent crisis; and that it is her unwillingness to co-operate is still the principal obstacle to an economic recovery".

(Einzig, 1932, pp. v and vii)

The brilliant columnist frequently substitutes for the academic economist. The book "contains highly controversial statements of fact [Einzig] was unable to substantiate until some quarter of a century later" (Einzig, 1960a, p. 124). With distance, the capacity to defend all the details of Einzig's criticism of French attitudes during this period is less important than the general analysis of soft pegs which can be deduced from this book. Einzig's main argument in this book is that failure of the system was a consequence of lack of cooperation before devaluation of the pound. Obviously, he was devoting all his energy to shedding light on the opportunism of France after 1926.

2.1. The Attitude of France before the 1928 Devaluation

Einzig identifies seven causes of the increase in France's gold stock from 1926. Some probably are overestimated: for instance, the effect of reparations which Einzig considered excessive, now is seen as more important psychologically (it maintained Germany in a position of submission and inferiority) for the relative economic situations of France and Germany than it was in fact. The effect of repatriation of French capital and France's profit on foreign holdings of French francs, as the "artificial export surplus through the stabilization of the franc at an unduly low level" (Einzig, 1932, p. 38) probably carried more weight. Einzig adds also (this is the 7th cause identified) that "French authorities were successful in resisting to [the adjustment of French prices to the

world level] by means of preventing the influx of gold from producing its normal effect". This sterilization of gold then maintained France's competitive advantage until the effects of deflation in the UK and US in 1931. The major part of the motives exhibited by Einzig then are a simple consequence of the "competitive devaluation" chosen by the French government to accumulate competitive advantage before stabilization and the return to gold.

2.2. The Attitude of France after the 1928 Devaluation

Einzig is more severe and proposes more robust arguments against France in his analyses of the motives of the movements in gold after the French franc returned to gold.

"Between 1929 and 1931 the French authorities made extensive use of the weapon of gold withdrawals in pursuing a political end". At this level, Einzig does not incriminate the French authorities directly but rather the French banks which influenced them. "It is widely known that French banks usually obey the wishes with the interests of their shareholders or their clients […] They certainly would not hesitate to take a hint from the authorities to withdraw their funds from London at a moment when in doing so they could assist the policy of their country" (*Ibid*, p. 56). For Einzig, these movements are not the result of convergent but unarticulated decisions but the effect of a real attempt to use gold and reserves as economic and political weapons: "while in the case of the United States, the inflow of gold was merely due to the absence of any defensive measures against the current, in the case of France, it was the result of a deliberate policy which began with the stabilization of the franc at an unjustifiably low level and continued through the crisis" (*Ibid*, pp. 69-70). This mal-distribution of gold and its excess hoarding by France for Einzig is at the origins of the world deflation in the years 1929-1930: "undoubtedly, there have been a number of individual causes responsible for the fall of prices in every individual group of commodities, but the existence of these factors does not dispose of the theory that the general downward trend was mainly due to the monetary factors" (*Ibid*, p. 68). Finally, given the initial low level of convertibility of francs and the resulting movements of gold from the UK, "for a long

time, France remained comparatively immune for the repercussion of the world-wide economic depression" (*Ibid*). it is interesting to note at this point that Einzig does not criticize France for choosing to benefit momentarily from the good effects of inflation and depreciation: "in early stages, inflation tends to be beneficial to producers as it enables them to repay debt in depreciated currency […] As France succeeded in stopping at the right moment, her industry and agriculture had all the benefit of the depreciation of the currency - at the expense of the rentier, of course – without any of the disadvantages. French producers were thus better equipped to face the depression than producers of most other countries" (*Ibid*, pp. 70-71).

Einzig also considers that the Bank of International Settlements headed by Pierre Quesnay was built to "come entirely under French influence and that it would become the instrument of French foreign policy" (*Ibid*, p. 62). As illustrations, the choice of Basle over London for the Bank's headquarters, the appointment of the "ultra-nationalist" Quesnay as its General Manager, and the low level of collegiality in the Bank's management, which, according to Einzig, mainly upheld French interests in the Central Banks' international relations. The failure of the 1930-1931 discussions between France and its partners in the Bank of International Settlements and the Gold Committee of the League of Nations are attributed also to the negative attitude of France which at this time played a leading role in both institutions.

2.3. Unsuccessful Cooperative Attempts

"The negotiations between the British and French Treasuries in January 1931 were not the only attempts to reconcile the conflicting interests of the two countries" (*Ibid*, p. 57). Later in that same year, during the Sterling crisis, Einzig describes the lack of real cooperation between the Bank of England and the *Banque de France*. For example, Einzig points to the credit proposed by the *Banque de France* to the Bank of England during summer 1931. At this time, the *Banque de France* participated objectively in the defence of Sterling but in such a way that Montagu Norman and the Bank of England staff considered French intervention to be a humiliation. A first then a second credit were finally accepted by the bank of England to support Sterling.

In other parts of his book, Einzig describes episodes of strong rivalry between France and the UK aimed at their Central Banks becoming leaders internationally: since Einzig is more severe over French free-riding attitudes, he points particularly to the case of "financial diplomacy" corresponding to French interventions in Hungary, clearly oriented to attracting Hungary to the influence of Germany and Italy. France, according Einzig, becomes "Europe's financial dictator" when also Austria and Germany are obliged to accept the support of *Banque de France* and the associated condition to drop their Customs Union scheme.

Einzig presents with some humor the suspension of convertibility of Sterling as an example of the game "*Ombre* in which the player who holds no trumps is in a stronger position than the player who holds them all" (*Ibid*, p. 122). "It is true that after the suspension of the gold standard London was not in a position to give assistance to other countries any more than she was during the period of her struggle to save sterling. On the other hand, the French hopes of dictating British foreign policy had definitively been frustrated" (*Ibid.*, p. 123). Einzig recalls that the French press echoed the tacit willingness of French politics and Central Banks' bankers to help UK to stabilize the pound at 100 francs. "The stabilization of the sterling at such a high level was obviously to the interest of France, as it would have safeguarded the interests of French trade" (*Ibid*, p. 129). Free floating of Sterling then is considered by Einzig as an opportunistic solution for the Bank of England, providing immediate disadvantage to France and without being the clearly best solution for the UK.

2.4. Decentralized Management of the Gold Exchange Standard and Coordination Failures

Paul Einzig considered the 1931 suspension of convertibility as a "defeat" for the UK but overall also for France. The subsequent phases of the monetary history of Europe would confirm his views. Had Einzig chosen in 1932 to write a different book that was less polemical and more fundamental, he probably would have conceded that the 1925 return to gold by the UK and the lack of cooperation between the Bank of England and the *Banque de France* during this period represented other defeats for

the two Central Banks and especially the Bank of England. Einzig's views can be rationalized in light of modern economic analysis. Retrospectively, the choices made by the UK and France during this period can be considered non-cooperative strategies which ultimately provide sub-optimal outcomes. Both countries were put in situations where the external reserves of one decreased, reducing its financial capacity to influence European reconstruction, and reducing its prices, as a consequence of the actions undertaken by the other. This is a typical situation of a coordination failure in the decentralized management of the gold exchange standard.

3. The Limits of Floating Exchanges

"Broadly defined and in its extreme form, a flexible exchange rate system allows the market forces of supply and demand, free from government intervention, to determine rates. It is with this extreme form of flexibility that Dr. Einzig is most concerned" (Pledge, 1971, p. 446).

The opposition of Paul Einzig to floating rates has its origins in the interwar period and in the way he interpreted the collapse of convertibility during the Great Depression. The failure of Bretton Woods and the return to free floating was the motivation for a new book by Einzig, published in 1971 only two years before his death. The book is an attack on flexible exchange rate regimes. In many of the arguments it develops, it is old fashioned: it is considered by modern specialists of exchange rates and international economics as the work of a disoriented and retreating columnist, out of touch with econometric methods and mathematical modeling, and with the new tendencies of macroeconomics more generally.

Among its reviewers, Gert Haller for *The Journal of Money, Credit and Banking*, William Poole for *The Journal of Finance*, Leyland Yeager for *The Journal of International Economics* among others, made very negative comments on the text. The way Einzig writes was not acceptable to 1970s mainstream macroeconomics for two reasons. The first is explicitly formulated by the three reviewers referred to above: the author of *The cases against floating exchanges* mixes, without clear distinction, and in the same text, ideological *a priori* positions (narrow-mind

anti-communism, ultra British nationalism…) and more scientific arguments, all presented in a literary form no longer in use in the best economic reviews of the early 1970s. The second is more implicit: Einzig was not involved in the debates of post-war monetary macroeconomics, had not contributed to elaboration of the new macroeconomics and probably has become distanced from its fundamental evolutions. The assumption of rationality of actions has been adapted progressively by the new classical school in constitution as a reference in all the theoretical constructions; during this time, Einzig has adhered to implicit assumptions of imperfect rationality and adaptive behaviors. Similarly, "competitive adjustment" of the market is perceived generally as the main stabilizing force able to restore a macroeconomic equilibrium initially disturbed exogenously. Free from any of these generally accepted options, Paul Einzig chooses to present four cases against free floating. We present these cases not according to the chronology of their exposition in the book but based on their growing level of importance read through twenty first century lenses:

- the first argument is rather technical. Einzig is a specialist in forward markets (see Einzig 1937, 1960b, 1961): he then tries to imagine the activity of forward markets with flexible rates. As the rates of exchange probably will move more frequently, hedging activities will be associated with all commercial transaction. Similarly, international portfolio management will be connected to operations on the derivatives markets able to provide adequate protection against external currency depreciations. Einzig fears that this increase in demand for facilities to cover the increased exchange risk will not find a counterpart in financial agents. These limitations would reduce trade and other international activities;

- the second argument is more classical and relatively consensual in the early 1970s. Einzig knows precisely the disciplining effects of the gold exchange. With fixed parity (and gold convertibility), an increase in inflation above the international level is followed automatically by a commercial deficit and by gold outflows: this mechanism narrows the monetary basis and plays the role of an automatic stabilizer on domestic price levels. This kind of automatic stabilization no longer exists with flexible exchange rates;

- Einzig's third argument is presented first in the book: it is also one of the oldest cases against flexibility. With flexible rates of exchanges, the volatility of exchange rates increases for most countries. This enhanced volatility generates counterproductive macroeconomic effects and has to be managed by a very efficient financial system. "Speculative influences, by causing exchanges to deviate considerably from their trade equilibrium level, would play a much distributing role under floating exchanges than they play under stable changes. Under fixed parities speculators are apt to operate both ways, as many of them are inclined to expect the authorities to be able to maintain existing parities…Under floating rates, on the other hand, even influences of events of relatively small importance, which under fixed parities would not give rose to trigger off strong speculative trends in exchange rates in anticipation of their unrestrained effect on the floating exchange rate. Although under fixed parities occasional devaluations or revaluations are apt to cause major changes in the economic system, similar troubles are liable to occur much more frequently under floating rates, after each major movement, and their extent is apt to be more considerable. While the extent of changes in parities is nowadays usually kept down to a minimum, there is virtually no limit to exaggerated exchange movements under floating rates" (Einzig, 1971, pp. 82-83);
- the fourth argument is that speculation is destabilizing with floating exchange rates: "Any speculative depreciation of a floating exchange tends to create its own justification even if it was originally not justified. Widely fluctuating exchange rates are apt to change their own equilibrium levels instead of merely adapting themselves to equilibrium levels. The operation of this principle was clearly discernible during the period of floating exchanges that followed the First World War. Very often depreciations were not a consequence of a decline of their equilibrium level caused by domestic inflation but their cause" (Einzig, 1970, p. 97).

The first argument was considered to be unacceptable by almost all the book's reviewers. The most convincing refutation is probably that by Haller who notes that in hedging activity, a "loss for one party (the additional cost due to a spread between spot and forward rates) is

automatically a gain for the other" (Haller, 1972, p. 1021). Haller illustrates his assertion using the following example: "Consider a situation when the forward rate of a currency is considerably below the spot rate. Covering indeed involves additional costs for an exporter; but the reverse holds for an importer of the same country. For him, the situation is highly favorable since he obtains the needed foreign exchange at a low price. As a consequence this would tend to raise imports which in turn would increase the demand for forward exchange. The result is, among other things, that a substantial fall of the forward rate is prevented" (*Ibid*).

The second of Einzig's arguments is the most acceptable to academic readers in the early 1970s. Inflation was a sensitive subject, and one of the reasons for the reluctance of many countries to adopt a floating exchange rate was fear of uncontrolled inflation at a time when the indexation effects between wages and prices were very strong. The reaction of William Poole, then member of the Federal Reserve System Board of Governors, was symptomatic of the weakness of the answer provided by the new defenders of flexibility to the case: "For the United Kingdom, who can say with assurance that Einzig is wrong? There can be little doubt that the "stop" in postwar "stop-go" has been the result of balance-of-payments difficulties" (Poole, 1971, p. 829). Poole then finds it difficult rationally to refute the general relevance of the argument: "The discipline argument is actually counter-productive for those who want to argue against inflation. Voters and politicians know that curing deficits will not necessarily cure inflation and so they feel that the discipline argument is phony" (*Ibid.*). The motive for refutation that Poole does not find immediately (or does not want to develop in *The Journal of Finance*) is that when capital inflows, in a quite automatic way, can compensate for a country's commercial deficit (as in the case of many developed countries today), the currency depreciation is relatively moderate or null when an increase in the commercial deficit occurs. In the countries satisfying this condition – those with developed and attractive financial markets – the monetary authorities can concentrate on controlling inflation, without considering the (limited) evolutions of external exchange rates.

The presentation of Einzig's third argument is confused by the overlapping of three different issues: the definition of the "equilibrium exchange rate", the relation between equilibrium and current rates, and the question of volatility of the nominal rate of exchange. The "equilibrium exchange rate" is a new concept: when Einzig was writing his book, he did not perceived with sufficient precision the content of this notion. Einzig considers it to be irrelevant for this rate to balance commercial, capital, speculative, and arbitrage international movements and concludes that the equilibrium exchange rate is "so remote as to be virtually non-existent" (Einzig, 1971, p. 56). This point is noted by Haller, Poole and other commentators who also consider that the equilibrium rate balances the sum of all these movements. Poole is probably more severe on the second question: "Einzig has simply confused the logical statement, 'There exists a rate that would balance imports and exports' with an empirical statement of the form, 'The sterling-dollar exchange rate existing last year balanced U.K. imports and exports'" (Poole, 1971, p. 828). Once distinguished from the other points, the question of volatility becomes more interesting. "Speculative influences, by causing exchanges to deviate considerably from their trade equilibrium level, would play a much distributing role under floating exchanges than they play under stable changes. Under fixed parities speculators are apt to operate both ways, as many of them are inclined to expect the authorities to be able to maintain existing parities…Under floating rates, on the other hand, even influences of events of relatively small importance, which under fixed parities would not give rose to trigger off strong speculative trends in exchange rates in anticipation of their unrestrained effect on the floating exchange rate. Although under fixed parities occasional devaluations or revaluations are apt to cause major changes in the economic system, similar troubles are liable to occur much more frequently under floating rates, after each major movement, and their extent is apt to be more considerable. While the extent of changes in parities is nowadays usually kept down to a minimum, there is virtually no limit to exaggerated exchange movements under floating rates" (Einzig, 1971, p. 82-83). The evidence of the recent decades does not refute the argument proposed by Einzig: the number and the representativeness of Currency Unions, Monetary Zones, Currency Boards and other fixed currency regimes around the world prove that flexible rates are still considered to generate more counterproductive effects in term of volatility,

than advantages in terms of capacity for domestic monetary authorities to define purely internal goals for their monetary policy.

Is speculation stabilizing or destabilizing? The question is still debated. The efficient market assumption supports the stabilizing speculation assumption. In many circumstances, observation confirms this view. But we know theoretically or have observed empirically many situations, associated for instance with different types of behaviors, or supposing heterogeneous information among market participants, where speculation is destabilizing. In some contemporary circumstances (e.g. the Mexican or the Asian crises), destabilizing forms of speculation have affected external exchange markets.

4. How to Manage Currency?

"It is an extremely difficult task to steer halfway between the Scylla of undue rigidity and the Charybdis of undue flexibility. From the point of view of maintaining the Bretton Woods system, it is equally important to avoid getting into mentality that changes of parities don't matter, and to avoid getting into a mentality that such changes must be prevented at all costs regardless of the extent of any prevailing fundamental disequilibrium" (Einzig, 1970, p.178).

Monetary policy is "the official effort to increase the advantages of the monetary system or to reduce his disadvantages" (Einzig, 1954, p. 51). This is a pragmatic definition that Einzig illustrates through the views he develops in his 1954 reference book, which would be read by generations of young students around the world before it was overtaken by the new forms of the quantity theory of money in the new version prepared by D. Patinkin in his seminal papers. A discussion around the conceptions of George Friedrich Knapp in the chapter seven of the book can be read as a sign of the pragmatic attitude of Einzig. The author then considered that "the State authority has immense power in determining the value of the money" but also that "a great deal is required to achieve that end, in the form of the monetary policy decisions and their application". Another way to make these considerations more relative is to state that "if Governments are prepared, rightly or wrongly, to sacrifice every other consideration for the sake of a policy aiming at maintaining the value of

money, that policy is often able to achieve its end" (*Ibid*, pp. 86-87). A second mark of this pragmatism is the title of Einzig's first analytical chapter: "The pursuit of internal and external stability". Although internal stability nowadays seems to be the primary goal of developed countries and external stability to be the main objective for over-developed and emerging countries, both goals continue to coexist in every monetary system. In particular, internal stability is expected as a consequence of a stable external value of domestic currency when fixed pegs are chosen, while external stability is a consequence of the capacity to control internal prices when external flexibility is chosen.

Einzig then presents ten "ends of monetary policy" in as many chapters. It is somewhat astonishing that "the policy of raising prices" is the first on his list, with many examples referring for instance to the situation in UK in between 1945 and 1951. It is interesting that Einzig presents not only the traditional arguments of the accomodationists but also an amazing reversal of the usual argument of new classical theory on the role of expectations: "while high prices may in given circumstances discourage buying, increasing prices tend to induce producers, wholesalers, retailers, and consumers to buy before a further rise occurs. The pursuit of a policy of higher prices is therefore apt to kill two birds with one stone. It not only ensure an increase of the output, but secures a market for a larger output" (*Ibid*, p. 106). Obviously, this policy, like other inflationary policies, cannot be definitive and Einzig in the following chapter presents an exactly opposite policy consisting of "raising the value of money", presenting it as an "ideal policy from the consumer's point of view". For Einzig, probably because, inside the Commonwealth area, the UK is less affected by international prices, the main advantage of an internal rise in the value of money (a fall in prices) is to allow industrial selection where only the most efficient units survive. The reader at this stage feels that Einzig – the academic author – is finally reluctant to give way to Einzig – the columnist – and to conclude that this "natural selection" might be efficient in the long run.

In 1972 Einzig published *A Textbook on Monetary Policy* (Einzig, 1972), a new version of his 1954 Pelican book. Twenty years later, Einzig's views – still reflecting the same pragmatism – seemed atemporal, unable to provide relevant answers to the new, dominant, monetarist views. Even

when considering new monetary events and debates, and when the arguments are unchanged, Einzig is unable to convince the new generation of specialists: the macroeconomic methods have changed, micro-founded models and econometric tests have become progressively the two necessary ingredients for scientific papers or books, and Einzig is obviously reluctant to adopt these changes in practice. An exhaustive presentation of the different objectives and means of monetary policy had appeared in 1954 as a mark of his openness and pragmatism but this same content is considered a sign now that the author was unable to integrate the last advances of macroeconomics which gave more credibility to the new quantity theory of money defended by Don Patinkin in micro-founded settings and by Milton Friedman in more aggregated presentations. With the success of the new classical school some years after, inflation targeting was to become the only objective of monetary policy, the final debates then concentrating on the relevant channels of transmission of the policy. With the slowdown in the economies of the developed countries from early 2000 and the succession of financial crises, a new pragmatism seems to have emerged, at least in the practices of Central Bankers: if Einzig's textbook provides no obvious solutions to the multistage financial crisis that we have been experiencing for several years now, it encourages the specialists to open their minds to imaginative actions and measures. Under the condition of being consistent with the management of a stable currency, these actions could have real effects better adapted to a moving context.

5. Conclusion

Paul Einzig probably will never occupy a great place in the History of Economic Analysis textbooks. Despite his French thesis, he is an autodidact in economics which is a major limitation, especially in relation to methodological issues. For this reason, his books and articles are organized along topics and concerns but do not integrate a clear distinction between assumptions, proofs, and results, at a time when this kind a scientific practice has become generalized in Economics. A second difficulty related to the accessibility of access his writings is the polemical style adopted in large parts of them. This is a by-product of his work as a columnist and probably also, as Einzig reveals in his memoirs (Einzig, 1960a), a sign of officious "campaigns" motivated by the financial (and sometimes political) interests of the UK, in which Einzig

clearly participated from the 1930s to the 1950s. The third and final imperfection is that his writings are excessive in number and extent, and are repetitious.

As a chronicler of the South-East European countries monetary and financial events, Einzig has clearly been frustrated by the same J.M. Keynes who invited his contribution to *The Economic Journal* and later motivated his interest in forward exchange markets. Because the readership on these subjects in UK was small, *The Economic Journal* rejected Einzig papers on Central or Eastern Europe, after having accepted articles from him on the financial situations in Russia and in Romania. Einzig refocused his interest on other subjects which made his future reputation.

We have commented in this paper on Einzig's developments on the choice of an appropriate exchange rate regime. This question without doubt has been the subject of the most important economic debates in the twentieth century, debate that is still ongoing: our official floating exchange rates frequently hide the unofficial unilateral or cooperative regulations that serve to secure them. Is it not time officially to relax the orthodox doctrine that Central Banks progressively adopted during the 1990s when, in a period of nominal divergence, they were limited to concentrating their interventions on nominal objectives? The latest banking and financial crises have promoted more pragmatic attitudes among Central Bankers and appealed to better elaborated macroeconomic approaches. The "subprime crisis" revealed to academics and Central Bankers the threat to the economies generated by those "financial fragility" situations, previously referred to by only a few heterodox scholars from the more reputable research centers. The current sovereign debt crisis makes monetary authorities able – at least temporarily – to renounce their official goals in order to prevent sovereign default. After these episodes, new principles of monetary policy will have to be redefined: they must give to Central Banks more pragmatic goals able to anticipate and prevent future crises. While imaginative theoreticians will try to elaborate the relevant approaches, and skillful econometricians will try to test them, the less talented specialists could re-evaluate the old views and arguments that modern approaches and methods too rapidly rendered outdated: Paul Einzig's books are without doubt worth consideration when the issue is to define the suitable properties of exchange rates systems.

References

Eastman, H. C. *A Dynamic Theory of Forward Exchange*, *by Paul Einzig*, The Canadian Journal of Economics and Political Science/Revue Canadienne d'Economique et de Science Politique, Vol. 28, No. 4, November, pp. 608-609, 1962.

Einzig, P. *The Monetary Economy of Bolshevism*, The Economic Journal, Vol. 30, No. 117, March, pp. 123-126, 1920a.

Note on Recent Currency Events in Rumania, The Economic Journal, Vol. 30, No. 120, December, pp. 556-559, 1920b.

The Gold Points of the Exchanges To-Day, The Economic Journal, Vol. 37, No. 145, March, pp. 480-483,1927a.

Present and Future Gold Export Points, The Economic Journal, Vol. 37, No. 147, September, pp. 133-139, 1927b.

International Gold Movements, The Economic Journal, Vol. 38, No. 152, December, pp. 662-665, 1928.

Behind the Scenes of International Finance, Macmillan, London, p. 154, [*first edition 1931*], 1932.

Bankers, Statesmen and Economists, Macmillan, London, pp. 252, 1935.

The Theory of Forward Exchange, Macmillan, London, pp. 520, 1937.

How Money is Managed? The ends and means of monetary policy, Pelican Books, London, p. 368, 1954.

Einzig, P.

In the Centre of Things, Hutchinson of London, p. 319, 1960a.

Some Recent Changes in Forward Exchange Practices, The Economic Journal, Vol. 70, No. 279, September, pp. 485-495, 1960b.

A Dynamic Theory of Forward Exchange, Macmillan, London, p. 563, 1961.

The Case Against Floating Exchanges, MacMillan, St Martin's Press, London, p. 211, 1971.

A textbook on Monetary Policy, MacMillan, St. Martin's Press, London, p. 461, 1972.

Haller, G.

The Case Against Floating Exchanges, by Paul Einzig, Journal of Money, Credit and Banking, Vol. 4, No. 4, November, pp. 1019-1023, 1972.

Janus, F.

The Papers of Paul Einzig, GBR/0014/ENZG, bluehttp://janus.lib.cam.ac.uk/db/node.xsp?id

Keynes, J., M.

The Tract on Monetary Reform, London: Macmillan, 1923.

Pledge, M., T.

The Case Against Floating Exchanges. *By Paul Einzig*, The Journal of Developing Areas, Vol. 5, No. 3, April, pp. 446-447, 1971.

Poole, W.

The Case Against Floating Exchanges. By Paul Einzig, The Journal of Finance, Vol. 26, No. 3, June, pp. 827-829, 1971.

Robinson, J.

Bankers, Statesmen and Economists. By Paul Einzig, The Economic Journal, Vol. 46, No. 181, March, pp. 122-123, 1936.

Strange, S. *The Destiny of Gold. By Paul Einzig, The Destiny of the Dollar. By Paul Einzig, International Interest Rate War. By Eric Chalmers*, International Affairs, Vol. 49, No. 1, January, pp. 86-87, 1973.

Yeager, L. *Paul Einzig. The Case Against Floating Exchanges. Book review*, Journal of International Economics, Vol. 1, No 3, pp. 362-365, 1971.

INTRODUCING EUROPEAN INSTITUTIONS FOR FINANCING AGRICULTURE IN SERBIA: FARMING CREDIT COOPERATIVES OF RAIFFEISEN TYPE FROM 1894 TO 1913

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Abstract

At the end of the 19th and at the beginning of the 20th Centuries the Raiffeisen formula of credit cooperatives was successfully implemented in Serbia. The aim of this paper is to explain this phenomenon with help of the logic of institutional economics. In the first part of the paper, we give a short remainder on the meaning and importance of Raiffeisen Type Credit Cooperatives for economic development of rural regions in Europe before the World War I. In the second part of the paper we explain how creating funds for credit cooperatives on the basis of massive participation of small farmers contributed to growing credit organization in Serbia. In the third part of the paper we analyze the reaction of Serbian government to the emergence of credit cooperatives. Without legal and financial government support those micro finance institutions would not become such important developmental tool. Finally, in the last part of the paper we discuss the characteristics of the competition between credit cooperatives and small township banks on local financial markets at the beginning of the 20th Century, when credit cooperatives became major creditors of farmers in Serbia.

Keywords: Farming Credit Cooperatives, Raiffeisen Formula, Local Financial Market, The Kingdom of Serbia

JEL Classification: G21, N23, N83

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1. Introduction

At the end of the 19th century, the farming credit cooperatives emerged in Serbia. Until The World War I, they were to the only specialized institutions for crediting farmers. Although they were primarily intended to save farmers from loan-sharks, they had in time grown into autonomous development crediting organizations. Their work was founded on principles of bonds of solidarity and high ethical values of its membership. They succeeded in their endeavors because they managed to acquire statutory and material support of Serbian Government.

Farming credit cooperatives were seen in Serbia as "rural population salvation anchor"[1]. At the time when credit cooperatives emerged, there was no organized agricultural credit in the country. All the ventures undertaken by the state-run financial institutions: Funds Directorate and district savings banks, to provide peasants with cheap loans had failed. The only loan that remained accessible to farmers was the loan-sharking one, leading the entire agriculture of the country into debtor's bondage. In its strives to rescue peasantry from this bondage, Serbian Government banned the seizure of homestead property for debt repayment in its vital part providing for subsistence of farming households; but this, in turn, indirectly deprived peasantry of any access to the mortgage loans available at the Funds Directorate[2]. During those times, peasant neither had any option to legally acquire draft loans of the shareholding banks, as the State had denied him the use of draft as means to secure credit, again in its endeavor to discourage peasantry from excessive indebtedness; yet falling in dire need of a personal loan, peasant would resort to false representation in the role of a merchant, and this he paid dearly once falling into the hands of the township loan-sharking banks[3]. Only once the farming crediting cooperatives emerged did the conditions appear for financial consolidation of the agricultural producers and for crediting development of agricultural production in Serbia.

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[1] *M. Nedeljković: "Zaštita seoskog poseda", Mijatović Boško, ed.: "Srpski ekonomisti do 1914. Godine" Belgrade, 2008, p. 247-278.*

[2] *D. Gnjatović: "The Earliest Measure of The Credit Policy in Serbia", Bankarstvo, No. 11/12, 2009, pp. 40-61.*

[3] *D. Gnjatović: "Zelenasi, The Earliest Creditors of Farmers in Serbia", Bankarstvo, No. 1/2, 2010, pp. 49-72.*

2. Credit Cooperatives of Raiffeisen Type

In the second half of the 19th century, the Raiffeisen formula of credit cooperatives was successfully received throughout Europe[4]. It was a system of credit institutions that had proved to be very simple to set up, yet capable of sustaining competitive challenge from private banking institutions. It was founded on seven pillars intertwined with credit funding and benefaction.

Firstly, association into a credit cooperative was of a universal character, with all persons allowed joining its membership. During those times troubled by official elitism and societal class divisions and conflicts, it stood out as an issue in the core of a profound social change.

Secondly, credit cooperatives were counting on their massive membership, as the material status of any individual member was neither a prerequisite, nor a predicament for joining the membership. The shareholding character of association was, in its essence, actually abolished. Credit cooperative members were free to become all the elders of the rural farming households, simply by paying a symbolic shareholding fees as prescribed by law.

Thirdly, credit cooperatives were organized along the principle of financial security. They were rural organizations of a local character, where people were well mutually acquainted, and where there was no threat of allowing some pauper guarantor to invade their midst – a person worthless and without property.

Fourthly, the principle idea was to bring together into credit cooperative not capital but people. Economic strength of their association was legally formulated in their unlimited liability for cooperative's debts.

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[4] *Friedrich Wilhelm Raiffeisen (1818-1888), German politician and public figure, in his capacity of mayor of the Weyerbusch municipality in Westwald, organised during 1847 and 1848 the provision of hungry peasants with flour and bread. He came up with the idea, for purely philanthropic reasons, to render assistance to peasants in his municipality by aiding them to self-organize and thus defend themselves from economic ruin, loan-sharks and other perils that had befallen them. After several attempts to organize farmers into cooperative self-help, in 1854, Reiffeisen established the first rural credit cooperative in Heddelsdorf, founded on the principle of strong bonds of solidarity of its members. The cooperative unit had a dual task: to provide to its members the cheapest possible credit, and to uphold their deep Christian values. Zadružni leksikon, Zagreb, 1957, p. 1059.*

Fifthly, credit cooperative was managed by people cherishing public interest far beyond their own personal gain. Except for the one paid staff-person, a secretary-cashier, all other members served in voluntary capacity. The management or board membership consisted of village teachers, priests, outstanding villagers and household elders, and their work was in voluntary capacity.

Sixthly, credit cooperatives were operating in a regular manner and in full public view. They were submitting reports, on regular basis, to the Alliance of Rural Cooperative Credit Unions, and these reports were every year reviewed at the Congress of Credit Cooperatives.

Seventhly, the institution of the cooperative credit had a task of continuous expansion amongst the rural farming population. Thus one part of credit cooperative's gains at all times had to be allocated to the establishment of new cells of this large-scale cooperative organism.

The earliest farming crediting cooperatives in Serbia were created after the model of credit cooperatives of a Raiffeisen type. The founder of the credit cooperatives in Serbia was Mihailo Avramović (1864-1945). Born in the village of Dubone, near Mladenovac, after graduation from the Trading Academy in Belgrade, he worked as banking clerk in Belgrade and Smederevo. In early 1890s, he was first introduced to the institution of the credit cooperatives when he travelled in Germany and Italy in his capacity of a manager of *Smederevska banka*. Upon his return to Serbia, he decided to transplant this institution into his native land. At that time, Smederevo County was considered to be the most densely populated county in Serbia, with the best transport connections, a fast developing local market, but also with the highest indebtedness of its rural population[5].

Mihailo Avramović established the first credit cooperative on 29 February 1894, in the village of Vranovo, near Smederevo. Avramović later explained his decision to undertake this step by saying that "After the success manifested by the credit cooperative units in Germany, in the field of regulating rural population crediting, and especially after the pilot tests for transplanting this institution into Austria and Italy, bringing about the best results, it became clear to all and every that cooperative credit unions

[5] *M. Komadinić: Skice i ogledi za jednu istoriju zadrugarstva u Srbiji, Beograd, 1934.*

were not linked with one country alone, but were able to develop as well in the foreign lands, just as well as they were sprouting, growing and blooming on their own native soil"[6].

While speaking of the establishment of the first credit cooperative in Serbia adhering to the Raiffeisen formula, on the occasion of the thirtieth anniversary of his work in developing cooperative credit institutions in Serbia, Mihailo Avramović wrote that: "While building up the rules for credit cooperatives for our peasantry, we were also mindful of preserving all that was of significant subsistence in Raiffeisenism: self-help, joint and several cooperative liability, limited location, managerial service in voluntary capacity, indivisible gains and reserve funds, lending only to cooperative members, and we have adopted all of these rules introducing them into our own regulatory set-up"[7]. While insisting on a consistent application of deep Christian values, but also high moral and ethical values in the organization of cooperative life taken over from Raiffeisenism, Avramović will in Serbia, and later in the Kingdom of Serbs, Croats and Slovenes, become known as the founding-father of the so-called Smederevo school of thought of cooperative movement[8].

3. Creating Funds for Crediting Operations

Rural credit cooperatives that were established in Germany after Raiffeisen's formula, were creating funds for crediting their membership from their own savings, to a lesser degree, but mainly by borrowing from the private banking institutions. Banks consented to approve cooperative loans on condition that all the cooperative members are held in unlimited joint and several liabilities for financial debts undertaken by the cooperative. In order to induce farmers to offer their property in joint and several pledge for the cooperative liability, they had to have very strong mutual bonds of solidarity indeed. Thus the rural credit cooperative was territorially limited to either one village or one parish. According to the *German cooperative law*, a credit cooperative member would become the

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[6] *M. Avramović: "Srpske zemljoradničke zadruge u 1905. godini, part III", Arhiv za pravne i društvene nauke, 1907, pp. 397-407.*

[7] *M. Avramovič: Trideset godina zadružnog rada, Beograd, 1924.*

[8] *D. Jovanović: Učitelji energije, Knjiga I, Beograd, 1940, pp. 121-134.*

farmer who has paid his membership fee. In order to allow even for those rural poorest farming producers to join the cooperative union membership, Raiffeisen decided to set down membership fee to the lowest possible level. Thus the membership fee no longer presenting an obstacle to joining membership in a credit cooperative, the decisive factors for admission of the rural population became their moral and ethical values of diligence, honesty, openness and social responsibility[9].

Profit not being the ultimate goal of Raiffeisen credit cooperative undertaking, their sole capital remained the indivisible reserve fund formed out of the cooperative gains. Cooperative gains were incurred from the difference between the interest rate at which the cooperative was securing monetary funds for crediting of its members, and the interest rate charged on the approved loans. This difference was a rather small one, as the interest rate on loans approved was two percentage points at the most above the interest rate that the cooperative was paying on the money borrowed from banks. Although for purpose of statutory forms they were constituted as the share holding companies, Raiffeisen credit cooperatives were not paying their members any dividends. Cooperative gains served their only purpose to replenish reserve fund and to finance establishment of new cooperative units. The only paid staff-person of a cooperative credit union was its secretary-cashier receiving a small stipend. All other duties and functions were dispensed by persons serving in voluntary capacity.

In 1872, to facilitate the access of cooperatives to the banking capital, Raiffeisen established The Rhineland Credit Alliance. Then, in 1874, he established The Alliance for Westphalia and The Alliance for Hessen. Thereupon, in 1876, he created The Main Credit Central Headquarters of all the German credit cooperatives (Deutsche Raiffeisenbank A.G.), and in the following year 1877, also The Alliance of Rural Credit Cooperatives.

The initial capital for commencement of business operations of these earliest cooperatives in Serbia consisted of the credits granted by

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[9] *T. W. Guinnane, "Friend And Advisor – Management, Auditors, and Confidence in Germany's Credit Cooperatives, 1889-1914", Center Discussion Paper, No. 824, Economic Growth Center Yale University, May 2001.*

Smederevska banka, small banking institution where Mihailo Avramović was earlier the manager. It is recorded in the preserved Joint Agreement signed by seventy household elders from Azanja, that the objective of the cooperative was "to procure for its membership necessary funds for farming works, to develop and disseminate awareness of the benefits of saving among them, thus in this manner bringing remedy to their material status"[10].

In Serbia, in actual practice, funds borrowed from the credit cooperatives were not used only for farming purposes. Soon after the commencement of work of the earliest cooperatives, it appeared that they were granting loans not only for purchase of drawing and breeding cattle and farming appliances, but also for acquiring consumer goods, for debt repayment and for paying tax dues. In this way, credit cooperatives in Serbia manifested their ability not only to provide care for agricultural production, but also render support to bare subsistence of the rural farming households.

Upholding Raiffeisen methods for development of rural credit cooperative movement, in 1895, Mihailo Avramović established in Smederevo the Main Farming Credit Cooperative, entrusted with the task to collect funds for financing of the local credit cooperatives. During that same year, he set in motion the initiative for the Main Rural Cooperative and 11 local credit cooperatives, those that had already started work, to become founding members of the first rural cooperative association in Serbia. Thus on 20 June 1895, the Alliance of Serbian Farming Cooperatives was established, with the seat in Smederevo, under the chairmanship of Mihailo Avramović. The objective of the Alliance was to acquaint rural population with the principles of rural cooperative movement, to cooperate with rural intelligentsia - teachers and clergy - in organizing farming cooperatives, to care for proper development and progress of cooperatives and to protect "their wellbeing and success".[11] In the year 1898, the Alliance of Serbian Farming Cooperatives relocated its

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[10] *100 godina zemljoradničkog zadrugarstva Srbije, Zadružni savez Srbije, Beograd, 1994.*

[11] *In 1859, Avramović took also part in London, at the founding congress of the International Cooperative Alliance. At the initiative of Great Britain, the International Cooperative Alliance was founded by the representatives of 11 countries, among them also Serbia.*

seat from Smederevo to Belgrade and since then acted as the Main Alliance of the Serbian Farming Cooperatives. Mihailo Avramović remained at its head until the year 1927.

4. Support of the Serbian State for the Farming Credit Cooperatives

The first farming credit cooperatives were established in Serbia before procuring any opinion to that effect from either the royal court, the government, or from the National Assembly. Among merchants and white-collar administrative staff of the Smederevo County this new initiative was received with skepticism and suspicion. Especially disturbed were Smederevo loan-sharks whose loans granted to farmers were five to six-fold more expensive than the cooperative credit union ones. They started the rumors that farming cooperatives were being established with the aim to economically organize a new political party "whose detrimental intents are aiming even as high as the throne itself". Although more learned people explained that it was only a matter of a progressive European institution, the authorities remained suspicious for several years that farming cooperative credit unions were "a danger to law and order" in the country. Top echelons of the state administration were finally convinced of the truth when one of the King's confidential sources" investigated facts on the grounds as to the real character of this institution[12].

Serbian state proceeded for the first time, to render legislative recognition to the farming credit cooperatives in the fall of 1897, when it allocated from its budget funds to the Main Farming Credit Cooperative for a loan of 100,000 dinars. Early in its work, the Main Cooperative could not satisfy with its funds alone all the needs of the entire number of the local cooperative units, and addressed the Government for assistance.

The fact that the government had by then overcome all resistance towards the farming credit cooperatives, and that the awareness had matured on their importance for the rural population, is best supported by the situation that at the time when the first budgetary support was adopted by

[12] *M. Avramović: "Srpske zemljoradničke zadruge u 1905. godini, part II", Arhiv za pravne i društvene nauke, 1907, pp. 297-313.*

the National Assembly for the Main Cooperative, in Serbia at that time there were barely some fifty rural cooperatives in operation.

During the following year 1898, the first Serbian law was adopted, the *Law on Farming and Crafts Cooperatives*[13], which was considered at that time as one of the most liberal among the corresponding laws in Europe. In this Law there is no particular definition of farming cooperative, but a listing and description of tasks to be executed by the cooperative. According to this Law, farming cooperative may: grant its cooperative members loans and receive their savings for yield and return; supply cooperative members with means for individual or joint use, such as: farming utensils, seed material, seedlings and nursery plants, cattle, tools, processing raw materials, etc; procure to cooperative members funds for consumption; jointly produce agricultural products or jointly process them, or both; jointly sell its produce or its handcrafts.

Concordant with corresponding European regulation of rural cooperatives, Serbian legislator broadly prescribed the scope of work of farming cooperatives. When the Law was adopted, farming cooperatives in Serbia were primarily engaged in work of crediting rural population, while some of them had also organized supply of farming utensils for cooperative members who would take a cooperative credit for that purpose. At that time, specialized purchase and sales cooperatives had not as yet appeared in the rural countryside of Serbia. Such a visionary response by the legislator to the emergence of farming cooperatives in Serbia, served as a momentum for their development and expansion of their field of operation. On the one hand, the law regulated what had already taken root in Serbia, as transplanted from the Raiffeisen credit cooperatives, and on the other hand legal options were opened for expanding cooperative activities.

Serbian *Law on farming and crafts cooperatives* returned to the rural population their creditworthiness, economic freedom and legal security. Creditworthiness of a farmer was lost when the nation state deprived him of the capability to incur draft loan liability. Now in the cooperative environment, every rural inhabitant was vested with this capability, by the fact itself that he was a cooperative member. Economic freedom was

[13] *"Zakon o zemljoradničkim i zanatskim zadrugama", Srpske novine, 16.12.1898.*

lost for the cooperative member when he fell into the hands of the loan-sharks. This freedom was regained in the cooperative by being capable of taking and repaying credit, in accordance with his objective material capabilities. Legal security was lost by the rural inhabitant when he had to consent, in order to gain access to the township bank credits, to the false representation. This security was regained when the legislator gave him the option of borrowing money in a legal manner in his capacity of a cooperative member.

Law on Farming and Crafts Cooperatives transferred the care of unlimited joint and several liabilities on to the Cooperative Assembly. Namely, the Cooperative Assembly was entrusted with resolving all of the cooperative business when deciding with the three-quarter majority vote. Especially significant role was played by the Assembly in formulating debt management with creditors. Cooperative could not be encumbered with debt by any person until the Cooperative Assembly had not so decided, and until it has set the amount of the debt to be incurred. To that end, the joint and several unlimited liability of the cooperative members for the financial liabilities of the cooperative was in fact limited by the right of the Assembly to decide how much debt the cooperative will incur. The Law had also denied the creditor an option to chase after individual cooperative members demanding collection of his claims. Creditor was, under the law, advised to seek repayment from the cooperative assets. Only once such assets would prove to be insufficient for settling creditor's claim, as determined by the court of law, creditor would be granted the right to address individual cooperative members

Strengthening of the cooperative capital in Serbia was supported by the State by deciding, in 1900, to secure for the farming cooperatives some permanent, additional, non-returnable sources of finance. In accordance with the *Law on Assistance to Farming Cooperatives*[14], the State placed at the disposal of the Main Farming Credit Cooperative in Belgrade one part of the revenues from the Serbian state class lottery, and a permanent budgetary credit in the amount of 50,000 dinars annually. The Main Farming Credit Cooperative very soon was to become an economic and financial powerhouse of the farming cooperatives in Serbia.

[14] *"Zakon o potpomaganju zemljoradničkih zadruga", Srpske novine, 1.02.1900.*

After the adoption of the *Law on Farming and Crafts Cooperatives* in 1898, and the *Law on Assistance to Framing Cooperatives* in 1900, the number of farming credit cooperatives in Serbia experienced a very fast growth. Cooperatives were being established in all the counties, and the highest number emerged in Smederevo, Požarevac, Kragujevac, and Morava River Basin counties. By 1901, the number of cooperative members grew to 10,383 in order to more than double by 1905. By 1905, there were 22,709 cooperative members in Serbia. On the eve of World War I, 782 farming credit cooperatives were in operation in the country, with more than 100,000 cooperative members. Cooperatives at that time covered from 17 to 18 percent of all the rural households in Serbia[15].

Thanks to the concentration of cooperative capital at the Main Farming Credit Cooperative, in the early 20th century, Serbian farmer-cooperative member was in the position to acquire favorable loans for purchasing modern farming utensils, even at lower monopolistic prices. Local framing cooperatives were borrowing money from the Main Framing Credit Cooperative at an interest rate from 5 to 6 percent per annum. At this same interest rate cooperatives were taking savings deposits from their members. Funds pooled from loans taken from the Main Farming Credit Cooperative and from the cooperative members' savings deposits, local farming cooperatives were lending to their members at an interest rate from 7 to 8 percent per annum. During nineteen years of its work, from 1894 to the end of 1913, farming cooperatives in Serbia had credited their members with over 25 million dinars[16].

5. Farming Credit Cooperatives and Township Banks in Serbia in the Early 20th Century

The Main Farming Credit Cooperative was crediting local cooperatives from its own funds and from the funds received on regular basis from the State, in accordance with the *Law on Assistance to Farming Cooperatives* of 1900. It was depositing its capital with the *Uprava fondova* (Funds Directorate) and two prime Serbian private banks in Belgrade: *Beogradska zadruga*, and *Beogradski kreditni zavod*. In December 1912, the Main

[15] *100 godina zemljoradničkog zadrugarstva Srbij, p. 12.*
[16] *M. Avramović: Zemljoradnik i novčani zavod, Beograd, 1914.*

Farming Credit Cooperative had in the treasury of the Funds Directorate over 500,000 dinars in silver, and in the treasuries of the two above mentioned private banking institutions, some 80,000 dinars in silver[17].

The basic task of the Main Farming Credit Cooperative was to render assistance in the upgrading of techniques in agricultural production. In the early 20th century, rather primitive farming appliances were in use in Serbia. The main farming field utensil was an obsolete cast-iron plough. Among the farming population there was a well-rooted prejudice against the import of modern-day ploughs, the "ironclads", from Germany "into our lands" and "for our livestock". It was only when the cooperative members were informed that by means of a cheap cooperative credit, they could acquire a better but also a cheaper plough, that the Main Farming Credit Cooperative was able to import modern, long-lasting ploughs made of forged steel from Germany. It succeeded in supplying them, through the Main German Cooperative, at a price of 51 dinars, and selling them at the same price to the farmers through the local cooperatives, while the private suppliers were selling the same at the price of 75 dinars. When the cooperative members accepted German "ironclads", local farming cooperatives were purchasing over a thousand of these cheap yet high-quality tools for farming per year. In addition, the Main Cooperative became the supplier of the sowing and planting machine at the price of 300 dinars, which was to be paid at the private sellers 400 to 500 dinars. High quality harvesting machine was priced at the cooperative price of 430 dinars, while "far worse harvesting machine was priced in town at 650 dinars"[18].

When the local farming cooperative would be in need of some farming device, it would be supplied by the Main Farming Credit Cooperative. But if neither the Main Cooperative was able, at the moment, to find such a device in its storage in Belgrade, its price would promptly jump on the market. Mihailo Avramović gave an example from 1913, when the price of a steam-powered threshing machine of 6 horse power, at the farming cooperative, was 9,000 dinars; but once those machine could no longer be purchased at the local cooperative, and neither at the storage of the Main

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[17] *Arhiv Glavnog saveza srpskih zemljoradnickih zadruga: Izjava Uprave Glavnog saveza srpskih zemljoradničkih zadruga, Beograd, 10.12.1912.*

[18] *M. Avramović: Zemljoradnik i novčani zavod, Op. cit.*

Cooperative in Belgrade, private merchants started selling them at the price of 14,000 and 15,000 dinars. Striving to avoid similar situations, the Main Farming Credit Cooperative became price regulator for farming devices on the market of Serbia.

Becoming major creditors of Serbian farmers, after barely two decades of work, farming credit cooperatives started to hinder businesses of small township banks. Competitive advantage that the credit cooperatives were having in respect to the township banks consisted in their higher dispersion and multitude in villages of Serbia, and also in the lower cost of capital offered for lending purposes. In 1913, farming credit cooperatives were 782 in number, while the township banks were only 149; cooperatives were granting loans to their members at an annual interest rate of 7 percent and 8 percent, while the loan-sharking annual interest rate of the township banks ranged between 30 percent and 40 percent[19].

Township banks strived in different ways to seize the funds of farming credit cooperatives and attract their members as their own shareholders. In a few number of cases, in the township environments in which there was a rather higher capital turnover, they were successful in such endeavors. Local bankers would convince members of the board of directors and the supervisory board of a credit cooperative to transform itself into a shareholding company, trying to have it thereupon join the already existing bank. Local bankers would then take over the credit cooperative funds, while the cooperative deposits would become shareholding stakes serving as basis for collecting dividends. This was the case, for example, with credit cooperative in Čačak which was established in 1900. Firstly, in 1901, "a certain person with great influence wished to merge the credit cooperative with the newly established *Čačanski kreditni zavod* ". That did not happen, but in 1903, cooperative in Čačak turned into a township bank by re-registering itself into *Čačnska udeonička zadruga* (Čačak Shareholding Cooperative). Members of its board of directors and the supervisory board became its majority shareholders[20].

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[19] *D. Gnjatović: "Zelenasi, The Earliest Creditors of Farmers in Serbia", Op. cit.*
[20] *J. Dašić: Ancionarske banke 1871-1946, Čačak, 1989.*

In addition, there were attempts to offer the farmers a shareholding form of cooperative membership, in order to seize money from those outside of the membership if they were ready to give it in order to become members of the farming cooperative credit unions. Newspaper *Zemljoradnicka zadruga* (Farming Cooperative) drew the attention of the public to one of such attempts, in a series of articles published in November and December 1913. It was reported that "through the villages of Serbia some banking institutions seem to be emerging calling themselves economic cooperatives having the task completely similar to the tasks of the farming cooperatives"[21]. It was explained that until the appearance of these self-proclaimed economic cooperatives, township banks were granting draft loans to farmers "only by the way and in a round-about form", as they would otherwise disclose their blackmailing of farmers with high interest rates, those farmer-beneficiaries who were by law deprived of passive capacity to incur draft loan liability. However, when the self-proclaimed economic cooperatives started to grow in number in the villages of Smederevo Jasenica, Mačva, Valjevo Posavina, in Toplice and Požarevac counties crediting of farmers became their main and public affair.

Although organized as the stake holding companies, according to the *Law on Shareholding Companies* from 1896[22], economic cooperatives strived to show that profit, allegedly, was not the main objective of their establishment. In order to present themselves as institutions for care and welfare of peasants, they even registered the Rules of Business Procedures in the Cooperative Register with the Main Alliance of Serbian Farming Cooperatives. Except for the changes guaranteeing limited liability of shareholders and distribution of business operations of the cooperative throughout the municipality or a county, Rules of these self-proclaimed economic cooperatives were, in actual fact, simple copies of the rules governing farming credit cooperatives.

In the public media, economic cooperatives would advise farming cooperatives not to fear their competition as they are striving along the same path: to render credit assistance to the progress of agriculture. In the article entitled "Banking institutions and farmers", published in the issue No. 21 of the *Zemljoradnička zadruga* newspaper, of 15 November 1913,

[21] *"Novčani zavodi i zemljoradnici", Zemljoradnička zadruga, 15.11.1913.*
[22] *"Zakon o akcionarskim društvima", Srpske novine, 19.12.1896.*

cooperative members were given explanation as to the real intentions of the economic cooperatives. "There can be no competition coming from these banking institutes as their grounds for operation and objectives of their work are completely come to the profit, to the rent, and what will be the consequences from such action, both for the farmer and for the national agriculture, capital remains blind and deaf. One thing must be made clear to farmers. In the same way as a private, single person, without mercy is pressing the farmer with his capital, so in the same way the associated capital will not function any differently. On the contrary, the lack of mercy is higher, while pressure is stronger"[23].

In search of people willing to subscribe shares, those pseudo-cooperatives were explaining "that the farming cooperatives are an insignificant tool placed at the disposal of the farmers", while promising that they shall be able much better to respond to the needs of the farming loans. They based such promises on underlining advantages of cooperative association on commercial basis. Their view was that cooperative members should be the real shareholders who will partake in the distribution of the cooperative profit and who shall have a limited liability, i.e. who shall be held liable for cooperative liabilities only with their own shares. In their quest for profit, they were stating that the operation of the cooperative must not be brought down to only one village, but should be spread out "to an entire political region"[24]. These new small-scale banks counted on having their interests coincide with the interests of the district chieftains. In doing this, they had the assumption that these state officials would be able to influence local population to subscribe for their shares.

However, economic cooperatives did not succeed in developing into rural population creditors, and neither in functioning together and parallel with the farming credit cooperatives. They disappeared from the economic life of Serbia as fast as they had appeared. Agricultural credit aimed to assist rural farming households proved to be impossible when paired with the profit-aimed objectives.

[23] *"Novčani zavodi i zemljoradnici", Op. Cit.*
[24] *"Zemljoradnička zadruga i Zemljoradnička banka", Zemljoradnička zadruga, 25.12.1913.*

6. Conclusion

Credit cooperatives of a Raiffeisen type, established in Serbia at the end of the 19th and the beginning of 20th centuries, had drawn the attention of the Serbian State to the possibility of organizing crediting aimed at the development of agriculture. In the spirit of its need for liberal economic Europeisation of Serbia, the Government supported the cooperative movement both through legislation and financial means. Thanks to this support, within the scope of this movement concentration of capital commenced, capital focused on agrarian field and the seed was sown for technical progress in the agricultural production of Serbia. Without cheap credit granted by the farming cooperatives, rural population in Serbia would have not been able to find money for purchase of modern farming utensils, and neither to procure such utensils at lower prices. However, the fact also prevails that until World War I, Serbian Government did nothing further in the area of a planned setting up of cheap farming crediting. After the Great War, there will be several attempts at finally regulating this matter. These attempts were brought into life only with the establishment of the Privileged Agrarian Bank in 1929, which was to set out as its main objective crediting of farming cooperatives and their alliances, "especially with the aim of supporting development of cooperative agricultural turnover and of the farming industry"[25]. Unfortunately, Agrarian Bank was established during agrarian crisis, so its support to farmers through cooperatives remained quite modest[26].

[25] *Zakon o Privilegovanoj agrarnoj banci, Beograd, 1929.*

[26] *D. Gnjatovic, V. Aleksic: "Rescuing Agricultural and Banking Sector from Collapse: Agricultiral Debt Consolidation in Yugoslavia 1932-1936", Paper presented at SEEMHN Conference: Monetary Policy during Economic Crises: a Comparative and Historical Perspective, Central Bank of Turkey, Istanbul, 16 April 2010.*

References

***	*Arhiv Glavnog saveza srpskih zemljoradnickih zadruga:* Izjava Uprave Glavnog saveza srpskih zemljoradničkih zadruga, Beograd, 10.12.1912.
Avramović, M.	*Srpske zemljoradničke zadruge u 1905. godini, II,* Arhiv za pravne i društvene nauke, pp. 297-313, 1907.
	Srpske zemljoradničke zadruge u 1905. godini, III, Arhiv za pravne i društvene nauke, pp. 397-407, 1907.
	Zemljoradnik i novčani zavod, Beograd, 1914.
	Trideset godina zadružnog rada, Beograd, 1924.
Dašić, J.	*Ancionarske banke 1871-1946*, Čačak, 1989.
Gnjatović, D.	*The Earliest Measure of the Credit Policy in Serbia,* Bankarstvo, No. 11/12, pp. 40-61, 2009.
	Zelenasi, The Earliest Creditors of Farmers in Serbia, Bankarstvo, No. 1/2, pp. 49-72, 2010.
Gnjatović, D., Aleksić, V.	*Rescuing Agricultural and Banking Sector from Collapse: Agricultural Debt Consolidation in Yugoslavia 1932-1936*, Paper presented at SEEMHN Conference: Monetary Policy during Economic Crises: a Comparative and Historical Perspective, Central Bank of Turkey, Istanbul, 16 April 2010.
Guinnane, T. W.	*Friend And Advisor – Management, Auditors, and Confidence in Germany's Credit Cooperatives, 1889-1914*, Center Discussion Paper, No. 824, Economic Growth Center Yale University, May, 2001.

Jovanović, D. *Učitelji energije, Knjiga I*, Beograd, pp. 121-134, 1940.

Komadinić, M. *Skice i ogledi za jednu istoriju zadrugarstva u Srbiji*, Beograd, 1934.

Nedeljković, M. *Zaštita seoskog poseda*, Mijatović Boško, ed.: Srpski ekonomisti do 1914. Godine, Belgrade, pp. 247-278, 2008.

*** *Novčani zavodi i zemljoradnici*, Zemljoradnička zadruga, 15 November 1913.

*** *Sto godina zemljoradničkog zadrugarstva Srbije*, Zadružni savez Srbije, Beograd, 1994.

*** *Zadružni leksikon*, Zagreb, 1957.

*** *Zakon o akcionarskim društvima*, Srpske novine, 19 December 1896.

*** *Zakon o zemljoradničkim i zanatskim zadrugama*, Srpske novine, 16 December 1898.

*** *Zakon o potpomaganju zemljoradničkih zadruga*, Srpske novine, 1 February 1900.

*** *Zakon o Privilegovanoj agrarnoj banci*, Beograd, 1929.

*** *Zemljoradnička zadruga i Zemljoradnička banka,* Zemljoradnička zadruga, 25 December 1913.

MODERN ROMANIA'S MONETARY SYSTEM: FROM THE BIMETALLISM OF THE LATIN MONETARY UNION TO GOLD MONOMETALLISM

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Abstract

The paper aims to examine the developments in the monetary system of Romania in the period 1867 1892, focusing on the endeavours of the Romanian society to take on and tailor the Western European patterns to its economic life. Thus, the introduction of the gold-silver bimetallism produced less benefits than originally expected, entailing the agio, which caused powerful economic imbalances and questioned the central bank's capacity to strike a balance on the money market.

Faced with the baleful consequences of the gold-silver ratio, the gold-silver bimetallism had to be relinquished to make way for the gold monometallism, as a result of both domestic hardships and global changes.

Keywords: Bimetallism, Monometallism, Mortgage Notes, Agio, Central Bank, Coverage Stock

JEL Classification: E42, E58, N13

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1. Specifications and Goals

The topic we would like to submit to your attention is not new, considering that in Romania the professional literature has concentrated quite extensively on the evolution of the modern national monetary system in the bimetallism era. Our goal this time is to embark on a slightly different approach of this issue, considering the efforts the Romanian society made with a view to catching up the time lags by adopting and adjusting to the successful patterns confirmed by practice in Western Europe. Based on the conviction that in an effort to modernise its institutions, the Romanian society pursued harmonisation with the practices that proved successful in Western Europe, we assume that Romania has used the same pattern with the monetary system – as shown by the developments in modern Romania's monetary system. The period spanning 1867 – the year that marked the adoption of modern Romania's monetary system and 1892 – the year that the introduction of gold monometallism came to completion was a period of sweeping political, military and economic changes in the international arena. In the case of Romania, this period saw the dawn of modern institutions. It was at that time that Romania gained its independence country proclaimed on 10 May 1877, which was internationally acknowledged the following year.

During our endeavour, as we attempted to illustrate the changes to the monetary system in Romania, we noticed that, in some cases, the data series used in professional literature do not meet the contemporary statistical and historical requirements. Starting from this fact, we tried to build or rebuild the data series necessary for our research based on the primary sources available in archives and libraries.

2. The Latin Monetary Union – A Changing Model

Turning to the national monetary system and its development, we start with a short analysis of the model Romania adopted in 1867, which had the same characteristics as the monetary system proposed by the Latin Monetary Union (established in 1865 and initially including France, Belgium, Switzerland and Italy and, starting with 1868, Greece). The goal of this Union was to put in place a common monetary system

for all the member countries based on the French monetary system, promoting the bimetallic gold-silver standard. The names and effigies of the monetary units differed from one country to another, while the technical features, i.e. size, weight, fineness were identical, with the gold/silver ratio set at 1:15.5. Gold and silver coins with face value of franc 5 (25 grams, 900‰ fineness) were accepted at pay desks without any restrictions across the member countries; moreover, these coins could be minted free of any constraints. The coins with face values lower than the franc 5 had an 835‰ fineness and are limited legal tender money, only the state was entitled to mint such coins and their number could not exceed 6 francs per capita[1].

Nevertheless, this monetary standard proved highly unstable, causing large imbalances, owing to the fluctuations between the gold/silver ratio set by law and their market prices. Starting with 1871, silver depreciated against gold on the international markets, so that the gold/silver ratio set in 1865 was no longer valid. Underlying this evolution was the increase in silver production, as well as some countries eliminating silver monometallism, in favour of gold monometallism (Germany). The difference between the official gold/silver ratio and the market reality sparked numerous silver price speculations. In order to put an end to all these speculations, the countries signatories to the Latin Monetary Union concluded another convention on 31 January 1874 containing the limitation of franc 5 coin mintage. Subsequently, on 5 November 1878, a new international agreement provided for the suspension of the franc 5 coin mintage allowing only silver coins with lower face values to be further minted. The result was a hybrid monetary system that the monetary history retained by the name of: “limping bimetallism” which ensured: the freedom to further mint gold coins; the silver franc 5 coin was no longer minted but continued to be legal tender; the gold/silver ratio was kept unchanged.

The instability of bimetallism urged most of the countries to adopt the gold monometallism, promoted by England. In the end, even the countries which had previously counted among the promoters of this system gave up on applying this model.

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[1] *William Oualid, Leçons sur la monnaie et les problèmes monétaires, Paris, 1927, pp. 75-77.*

3. The Romanian Society – A Changing Society

During 1865-1878, the monetary reality witnessed sweeping changes as gold gained the upper hand over silver. Meanwhile, the Romanian society was also undergoing in-depth changes, as the country succeeded in gaining its independence and sovereignty. In 1859, the territories outside the Carpathians – inhabited by Romanians – became one country bearing the name of the United Principalities of Moldavia and Wallachia, a political entity under Ottoman suzerainty as well as under the protectorate of the great powers of Europe (Russia, Prussia, France, Austria, the United Kingdom and Sardinia). In the pursuit of sovereignty, the Constitution of 1866 provided that the name of "United Principalities" should be replaced by "Romania", making no reference to the Ottoman suzerainty.

At that time, a variety of coins minted by foreign powers circulated on the territory of Romania, but the account currency was the leu (equal to 40 parale). The monetary chaos came to an end after the adoption of the "Law on establishing the new monetary system and manufacturing the national currency" on 22 April/4 May 1867. The law which entered into force on 1/13 January 1868, putting in place a modern monetary system in Romania, was a step towards asserting the country's sovereignty, as well a must for its economic life.

As with other cases, the authorities adopted the monetary system promoted by France via the Latin Monetary Union. The first paragraph of the law provided that: "a metric decimal monetary system is to be adopted based on the model in place in France, Italy, Belgium and Switzerland"[2] and the gold and silver coins issued in France, Belgium, Switzerland and Italy were to be accepted by all pay desks. The take-over of the French model had first and foremost political reasons, as Emperor Napoleon III had proved to be one of the advocates of Romania's sovereignty. This support was surely aimed at ensuring the expansion of the French capital to the mouth of the Danube, in view of the competition with the German capital. On 4/16 April 1867, Prince Carol underlined in his memoirs the mixture of economic, political and military interests

[2] *Lege pentru înfiinţarea unui nou sistem monetar şi pentru fabricarea monedelor naţionale in Legiuirile României vechi şi noi, Ion M. Bujoreanu, Vol. I, p. 1978.*

shown by "influential Parisian circles" in relation to Romania, as well as their fear of similar "Russian and Prussian influences". In this context, the prince was "whole-heartedly recommended to use the new rifle (Chassepot), as well as the monetary system of the Latin Union."[3] Beyond these considerations, Ion I. Brătianu, the then minister of internal affairs and the head of the Liberal Party in Romania, stated that "the French franc is our leu"[4], which left no room for interpretation in relation to the identity of the future national currency.

The authorities in Bucharest were aware of the difficulties posed by the gold-silver standard, as reflected by the opinions expressed during the parliamentary debates over the enactment of a law on the modern monetary system in 1867. The presentation of the draft law mentioned the danger arising from the gold-silver standard:

> *"..... the committee of delegates also saw that the gold-silver standard proposed by the government be accepted, namely that both precious metals (gold and silver) be accepted as legal currency, although it admitted the drawbacks arising therefrom, since, given the fact that the law could not lay down the gold/silver ratio – in view of the varying conditions in which the two metals were extracted and implicitly of their fluctuating value – the gold/silver ratio did not always match the legal ratio and hence the inconvenient to see the country flooded sometimes by gold, other times by silver, depending on the price fluctuations of these two metals"*[5]*. Nevertheless, the promoters of the law motivated their option by stating that: "However, the committee has not lost sight of the fact that the states are still keeping in place a gold/silver standard and, therefore, it is not possible to abandon that system; and, having in view that the unity of the monetary system is the purpose of all civilised countries aiming to reach this unity, the committee of delegates accepted the counterarguments and adopted the gold/silver standard"* [6].

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[3] *Memoriile regelui Carol I de un martor ocular, Vol. I 1866-1869, the second edition and preface by Stelian Neagoe, Bucharest, Machiavelli Publishing House, 1994, p. 160.*

[4] *C. I. Băicoianu, Istoria politicii noastre monetare şi a Băncii Naţionale, Acte şi documente, Vol. I, Part II, p. 245.*

[5] *Ibidem, p. 231.*

[6] *Ibidem.*

Beyond the doubts surrounding the monetary system and the monetary and political arguments in favour or against bimetallism, the law of 1867 set forth that the *leu* was the national currency, having 100 bani as fractional coins. Thus, one *leu* was equivalent to 0.3226 grams of gold with fineness of 900‰ or 5 grams of silver with fineness of 835‰, the gold/silver ratio being equal to 1:14.38. According to the law, only the state was entitled to mint coins, as gold and silver coins were not available for free mintage. The law stipulated that lei 20, lei 10 and lei 5 coins were made of gold, while lei 2, leu 1 and bani 50 coins were manufactured of silver and all were legal tender; the copper coins were fractional coins and are limited legal tender money, below or equal to lei 5.

In spite of the statements that the Romanian monetary system resembled the model promoted by the Latin Monetary Union, Romania could not join the LMU at that time, a possible explanation lying with its international status of a country under Ottoman suzerainty and under the protectorate of the great powers of Europe which did not allow it to promote its own foreign policy, and implicitly to join international conventions and treaties.

4. Deviations from the Latin Monetary Union Model

As one can easily notice, ever since its adoption, the national monetary system saw several deviations from the Latin Monetary Union model – generated by Romania's economic and monetary features. The Romanian laws did not stipulate the minting of the lei 5 silver coin with a 900‰ fineness (the equivalent of the franc 5 coin in the LMU system); however, the other silver coins with an 835‰ fineness enjoyed legal tender status. Thus, according to the Law of 1867, the gold/silver ratio was of 1:14.38, compared to the 1:15.5 ratio proposed by the LMU. Likewise, the Romanian laws did not stipulate any right to freely mint coins, as money issuance was state monopoly.

Subsequently, Romania witnessed political and economic developments that called for new deviations from the LMU principles. During 1877-1878, Romania participated in the Russian-Turkish war in pursuit of the international recognition of its independence proclaimed on 9 and 10 May 1877. One year later, the provisions of the Peace Treaty of Berlin

recognised Romania's national independence, but this victory came at a price, as the country's exports of grains had to be contained, following the closing of boundaries, and the Russian armies were allowed to march across Romania's territory – at the beginning, the products procured for the armies were paid for in gold, and later on only in silver. This situation caused the drop and even a freeze of the gold flows arising from the exports of grains as well as the flooding of the Romanian market by Russian silver coins.

This state of affairs urged the Romanian authorities to approve a new deviation from the LMU model. On 10 May 1877, the silver rouble became legal tender in Romania, with an overvalued exchange rate of 4 lei/1 rouble compared to the market rate[7] of lei 3.70/1 rouble. The measure was formally substantiated by the fear of the authorities in Bucharest that the refusal to accept silver roubles as means of payment might have triggered their replacement by paper roubles for the payments made by the Russian army, which would have caused even larger prejudices to the national economy. Nonetheless, the context was further challenging as the favourable conversion conditions flooded the Romanian market with roubles due to numerous speculations. A magazine published at that time described Romania's monetary reality after the completion of the war:

> *"Trade is calm, exports are non-existent, significant amounts of gold flee the Romanian market while the roubles that flood Romania stay and there is no other way to get rid of them but to sell them at a loss and lose all the benefits and savings made with such great efforts and thereby cause huge economic disruptions!"*[8]

The Romanian market continued to face a challenging environment, although ever since the beginning of 1878, the official exchange rate of the rouble had been lowered to lei 3.70 (18/30 January 1878)[9] in order to put an end to speculations. However, in January 1879, roubles 34.5 million were still in circulation, and the gold/silver premium equalled 8 percent. Subsequently, starting with 27 November/9 December 1880,

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[7] *Ibidem, Vol. II, Part II, Bucharest, 1932, p. 31.*
[8] *Ibidem, p. 14.*
[9] *Ibidem, p. 31.*

the withdrawal of the Russian roubles was completed, with the possibility to convert them into lei at the public cash desks at an exchange rate of lei 3.50/1 rouble. After 31 December 1880/12 January 1881[10], the roubles ceased to be used as legal tender in Romania. The official circulation of the Russian currency was viewed as a deviation from the monetary model adopted in 1867 and a setback in the process of asserting the country's independence the very moment it had been politically acquired.

The demonetised roubles were turned into lei 5 silver coins, according to the issuing standards imposed by the Latin Monetary Union for the franc 5 coin (25 grams, 900‰ fineness). This issue was intended to complete the national monetary system by one coin which, in the event of Romania's joining the LMU, could be exchanged without restrictions within the Union, along with the gold coin. The fact that the LMU had just suspended the unlimited minting of the franc 5 coin (1878) by reducing the amount of silver coins to 6 francs per capita was overlooked.

Romania's participation in the Russian-Turkish war brought about a second deviation from the Latin Monetary Union model: the putting into circulation of mortgage notes. According to the Law of 7/19 June 1877[11], mortgage notes were payment instruments issued by the Ministry of Finance by the agency of the Savings Bank, being backed by first-class mortgage on the state's landed properties. The total value of the issue was lei 30 million, including the following denominations: lei 5, lei 10, lei 20, lei 50, lei 100 and lei 500. The mortgage notes were attached a compulsory value and were accepted by all the public pay desks; their withdrawal from circulation was to be accomplished six years later at a 10 percent premium against their face value. Eventually, the mortgage notes issued amounted to only lei 26,260,000, being put into circulation starting with May 1878. These notes replaced the hoarded gold coins and the demonetised silver roubles. After several failed attempts, the mortgage notes were withdrawn from circulation in 1880 via the National Bank of Romania, which received the authorisation to issue banknotes – for which a 33 percent gold or silver cover was required – the same year it was established. The issuing house replaced the mortgage notes in

[10] *Ibidem, p. 22.*
[11] *G. C. Marinescu, Banca Națională a României, Legi, statute, dispoziţiuni monetare, convenţiuni financiare, Bucharest, 1939, pp. 303-307.*

circulation by its own banknotes at a changeover rate of 1:1. The mortgage notes owned then by the NBR were not immediately redeemed by the state, being stored for a while in the NBR's cover stock as a guarantee for the banknotes issued to replace them.

5. Agio – Causes, Development, Types

In early 1890, money circulation in Romania relied on the following means of payment: fractional copper coins enjoyed limited legal tender of only lei 5, silver coins with fineness 835‰ (leu 1, lei 2 and bani 50) and 900‰ (lei 5), which circulated without restrictions, as well as the banknotes issued by the National Bank of Romania. The gold coins had almost vanished from circulation being either hoarded or exported. The structure of money circulation in Romania may be seen as the major cause for the imbalances in the functioning of the national monetary system due to the emergence and persistence of a phenomenon known at the time as *agio*, namely the gold premium in relation to silver as well as to banknotes. A better definition of *agio* is formulated by one of the contemporaries:

> *"This is one of the most serious issues, as farmers, owners, retailers and industrialists are equally affected and fear that their fortune in silver or banknotes would diminish over night and that, the next day, the worth of their money holdings would be 8 percent, 10 percent or 15 percent lower"* [12].

This phenomenon was specific to all the countries using the gold-silver standard, not only to Romania. As mentioned before, in 1865-1889, the international markets saw a marked increase in the ratio between the two metals from 1:15.5 according to LMU regulations to 1:22.12 in 1889. The above-mentioned development, provided that the legal ratio between the two metals remained unchanged, showed a propensity for gold coins for which a premium (*agio*) was paid. The gold coins were hoarded and thus vanished from circulation to the detriment of silver coins the value of which was going down.

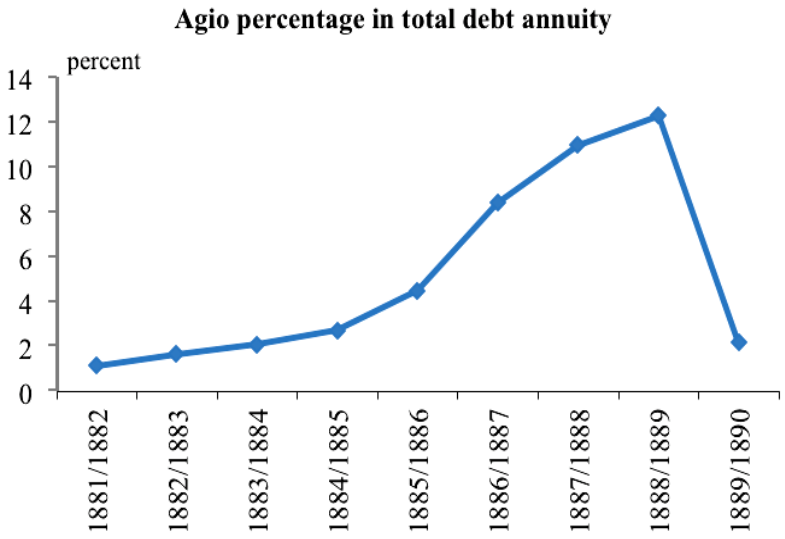
However, the increase in the gold premium was also attributed to other factors which, in Romania's case, will be hereinafter presented in more detail. The first reason behind the unprecedented increase in the gold

[12] *I. C. Băicoianu, Istoria politicei noastre monetare şi a Băncii Naţionale. Acte şi documente, Vol. II, Part II, the second volume of annexes, Bucharest, 1939, p. 96.*

premium in relation to silver was Romania's trade deficit that widened against the background of the poor crops in 1883-1884 and the customs war with Austria-Hungary unleashed by the Romanian government's refusal, in 1886, to extend the validity of the customs convention signed with the Austro-Hungarian Empire in 1875. The convention promoted grain exports and imports of manufactured products, coming in contradiction with the Liberal government's policy to protect and support industry. Trade deficit caused the decrease of the gold inflows and, implicitly, an exchange rate for gold coins on the domestic market higher than that of other denominations.

The situation was aggravated by massive gold outflows triggered by the need to pay external debt service which grew considerably higher on the back of the external borrowings necessary to cover modernisation costs. The amounts necessary for purchasing gold from the domestic market – the price of which included *agio* as well – added to the amounts that needed to be paid annually from the Romanian state budget. This resulted in a higher demand for gold on the domestic market, which contributed to the rise in the gold premium in relation to silver.

Figure 1



Source: Victor Axenciuc, Evoluția economică a României Cercetări statistico-istorice 1859-1947, Vol. III, Academia Română Publishing House, Bucharest, 2000, p. 716, Romania's general government budget 1881-1890

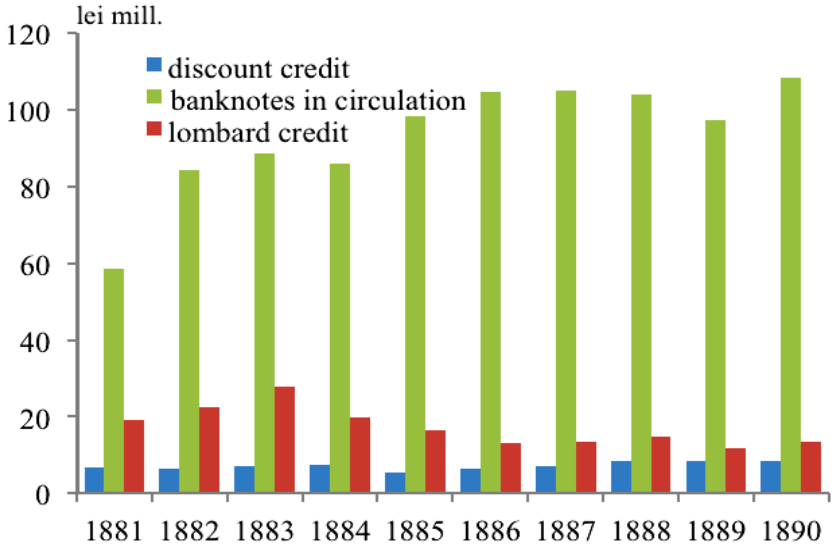
The NBR's lending policy as well as the metal stock breakdown contributed to the rise in the gold premium. Previous to the establishment of the NBR, most bankers operating in Romania contracted gold-denominated loans on the external market to secure the necessary funding for their activity. The high interest rates on such loans caused the domestic lending rates to range between 18 percent and 36 percent[13]. However, cutting interest rates was one of the objectives pursued by the central bank which used a discount rate ranging from 4 to 6 percent during 1880-1889. In addition, the Lombard rate was also low (4-7 percent)[14], which caused the decline in the price of money on the domestic market as well as in gold inflows.

The rise in the *agio* was also triggered by the disparity between the loans the NBR granted by the discounting of commercial paper and the Lombard credits of government securities in favour of the latter. As a result, in 1881-1890, the loans granted by the issuing house by discounting commercial paper made up 6 -11 percent[15] of the value of banknotes in circulation, while the Lombard credits of government securities accounted for 13.1-32.6 percent[16]. This generated the increase in the speculative transactions in government securities on the stock exchange and the extension of loans in the absence of an economic activity underlying the putting into circulation of new banknotes.

[13] *U. T. Mihaiu, Politica monetară şi a băncilor României, Bucharest, 1905, Vol. I, p. 64.*
[14] *National Bank of Romania, Reports of the Board of Directors submitted to the General Meeting of Shareholders, 1881-1890.*
[15] *I. C. Băicoianu, Istoria politicei noastre monetare şi a Băncii Naţionale Acte şi documente, Vol. II, Part I, Bucharest, 1932, p. 514.*
[16] *Ibidem, p.520.*

Figure 2

Evolution of discount credit and lombard credit in the volume of banknotes in circulation



Source: I.C. Băicoianu – Istoria politicei noastre monetare şi a Băncii Naţionale 1880-1914, vol II, part.I, the Official Gazette and the State Printing House, the National Printing House, NBR – Board's Report to the General Meeting of Shareholders, 1880-1891

The third aspect related to the NBR's lending policy which had an impact on the *agio* was the derogation from the rules governing the discount for the agricultural bills of exchange. Three months after reaching maturity, they could be replaced with other drafts, thus contributing to blocking the NBR's commercial portfolio.

The structure of the NBR's metal stock, the cover for the banknotes issues, was another factor underpinning the rise in the gold premium. As mentioned before, the NBR banknotes replaced mortgage notes in circulation which had been deposited in the bank's cover stock before the state repurchased them, accounting for a 1 to 1 share of the banknotes replacing them. As a result, during 1881-1888, the central bank issued banknotes in amount of roughly lei 25.9 million without legal metal cover. In 1886, after the expiry of the deadline for the mortgage note repurchase, the state and the NBR signed a new agreement, whereby the

deadline was extended until 1912. The state committed to annually sell property pledged as mortgage notes for at least lei 1 million.

The proceeds were to be transferred to the NBR, which had to remit to the state mortgage notes of equal value[17]. Following this procedure, mortgage notes in amount of merely lei 508,810[18] had been repurchased by 1888.

Another aspect related to the structure of the metal stock with an impact on the *agio* was the overwhelming share of silver. Banknotes were legally convertible into gold and silver, although in practice they could be converted in silver only. Gold was considered commodity and traded as such even by the central bank.

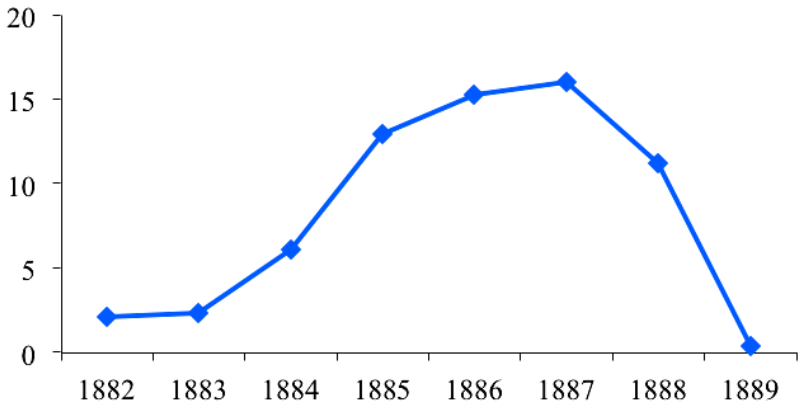
Although the causes of *agio* can be relatively easy revealed by both dedicated literature and the records of that time, its evolution posed several problems to researchers with regard to information accuracy. The Romanian authors dealing with this topic used the data released by U. T. Mihaiu in his paper published in early 20th century. However, such data are not accompanied by relevant information on the collection methodology and the calculation method of monthly averages. Considering this, we made our own attempts to follow the gold premium developments in relation to silver, resorting to primary sources: bulletins published by bankers in the newspapers of the time, as well as *Cota oficială a Bursei din Bucureşti* (*The Bucharest Stock Exchange List*). We identified several types of notes on the *agio*: vault gold holdings, gold for silver and banknotes, *agio* on the stock exchange, etc. In numerous cases, we used the data in *The Bucharest Stock Exchange List* and only when such data were unavailable we used the information in the bulletins published by bankers on a daily basis. Data are the monthly averages of daily records of *agio* and were used to calculate annual averages.

[17] *G. C. Marinescu, Banca Națională a României, Legi, statute, dispoziţiuni monetare, convenţiuni financiare etc., pp. 141-142.*

[18] *I. C. Băicoianu, Istoria politicei noastre monetare şi a Băncii Naţionale. Acte şi documente, Vol. II, Part I, Bucharest, 1932, p. 254.*

Figure 3

Agio in Bucharest



Source: The Official List of Securities of the Bucharest Stock Exchange

The analysis of data for 1882-1889 indicates that the gold premium increased during December 1884-June 1888. Subsequently, the gold premium followed a downward course, due to both inflows of gold foreign exchange in the context of bountiful crops and the restructuring of the monetary system announced by the Conservative government. With regard to seasonal developments, the *agio* level was higher during the cold season as trade in agricultural products stagnated due to the transportation problems posed by the freezing of the Danube river.

In the Romanian economy, the higher agio indicating the disruptions in the gold-silver standard caused major imbalances, such as the vanishing of gold from circulation as a result of hoarding and exports and the introduction of the gold payment clause for large-value transactions: wages, rents, leases, repayment of loans to rural credit institutions, forward transactions on the stock exchange, etc. In general, in the absence of gold, payments were made in silver to which added the daily *agio*, although the contractual provisions stipulated the payment in gold. Another phenomenon related to the bimetallism crisis was the price increase which included the gold premium.

In that economic context, the NBR's prerogatives relative to ensuring a balanced monetary circulation were seriously put to the question. The metal stock of the central bank could no longer be used to adjust the amount of banknotes in circulation, as the NBR converted its banknotes in silver only. As a result, banknote holders did no longer request to convert them into precious metal, as banknotes were far easier to transport than silver. The bank considered this procedure an opportunity to protect its metal stock, since conversion into gold could have generated the exhaustion of its gold holdings and the introduction of a forced exchange rate in the context of an *agio* of over 10 percent. Nevertheless, according to the NBR's reports[19], in times of crisis, the issuing house put into circulation large amounts of gold in order to "support market developments and cut the *agio*". However, the efforts of the central bank were not enough given that the causes of *agio* had their root in the imbalances generated by bimetallism.

6. Adoption of Gold Monometallism

In face of the disastrous consequences of the rise in the gold premium in relation to silver, the elimination of the gold-silver standard and the introduction of gold monometallism appeared more necessary than ever. For our statements to be entirely accurate, we should consider that the shift in the approach to bimetallic gold-silver standard was gradual, being induced not only by its harmful effects on the national economy, but also by worldwide changes. As mentioned before, LMU countries gradually implemented a monetary system known in dedicated literature as the "limping bimetallism", while other countries such as Germany totally gave up silver and introduced gold monometallism. On the other hand, the political influence of France on Romania diminished considerably, even though the cultural affinities remained unchanged. Germany became an increasingly important player in the trading and political fields which was an extra advantage in favour of another monetary system. A major reality concerning domestic political developments added to all the aforementioned changes. The Liberal governments which supported and

[19] *National Bank of Romania, Reports of the Board of Directors submitted to the Ordinary General Meeting of Shareholders, 1887-1890.*

imposed bimetallism were replaced by Conservative governments. The latter had used the problems arising from the gold-silver standard in their favour and, after coming to power, they replaced bimetallism with gold monometallism.

In light of the above, Menelas Ghermani[20], who may be considered the government supporter of the gold monometallism and who was an expert in the management of financial and banking activities, stubbornly pursued the implementation of the measures necessary for the achievement of the above-mentioned purpose.

The first stage was the removal of the *agio* by phasing out the causes of this phenomenon. Therefore, mortgage notes were repurchased from the NBR and other government debts to the issuing house were repaid. In addition, bountiful crops reinvigorated grain exports and fostered inflows of gold coins into the domestic market. The cut in the gold premium close to its phasing-out was followed by the implementation of the second stage of the plan drafted by Menelas Ghermani through the enactment of monometallism. In order to achieve this objective, the monetary act was amended, the largest part of silver coins were withdrawn from circulation and negotiations were opened so that the NBR accepted the amendments to the law and its statute according to the new monetary regulations.

The redemption of mortgage notes enacted in December 1888 was a decisive step towards the elimination of the *agio*. This relied on the fact that the mortgage-backed banknotes issued by the NBR were covered neither by the metal stock nor by the commercial portfolio nor by government securities. From this standpoint, the situation was all the more serious as the state had sold part of the real estates that backed mortgage notes. To bring this situation to an end, the mortgage notes in amount of lei 25.7 million held by the issuing house had to be repurchased by the state immediately or during 6 months at most after the adoption of the law. Until the payment was made, the NBR received a proportional indemnification payment of 1 percent per year. The mortgage notes that were not held by the NBR could be purchased from private entities during 5 years after the law enactment. In order to

[20] *Menelas Ghermani was the minister of finance during the mandates of the Conservative governments.*

provide the necessary means for this operation, a public loan was launched[21]. The withdrawal and the repurchase of mortgage notes were completed in 1889.

Another factor impacting the liquidity of the cover stock and contributing to the emergence of the *agio* phenomenon related to the Bank's commitment to make foreign-exchange payments for the government. Specifically, the government used the central bank's foreign exchange to repay the external public debt, while also undertaking to refund the NBR for the relevant amounts in monthly instalments worth lei 3-3.5 million each. However, the government was not always in a position to meet its obligations in due course. Hence, when the Conservative Party came to power in 1888, the state owed the National Bank lei 16 million, which translated into an equivalent issue without coverage. Menelas Ghermani, the newly-appointed minister of finance, repaid the said debt by taking out a public loan[22]. Mention should be made that the government later gave up on this practice and, starting 1889, the public debt was serviced from the funds available to the Ministry of Finance.

In addition, several bumper crops led to a rebound in grain exports and to a larger inflow of convertible currencies, which helped diminish the gold premium until disappearance.

The enactment of the gold monometallism called for amendments to the Monetary Law, to the NBR Law and Statute, as well as for the partial demonetisation of the silver currency. A new monetary law could be passed at the initiative of the government and voted by the legislative assemblies, whereas the NBR Statute could only be amended if the general meeting of shareholders gave its nod. It is worth mentioning that private capital accounted for two thirds of the central bank's total capital. In other words, the adoption of the gold standard implied not only a monetary reform, but also a central bank reform. Moreover, the technical side of the changeover, whereby part of the silver coins were withdrawn from circulation and replaced by gold coins, had to be thoroughly prepared.

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[21] *I. C. Băicoianu, Istoria politicei noastre monetare şi a Băncii Naţionale Acte şi documente, Vol. II, Part II, Bucharest, 1939, pp. 254, 257.*

[22] *U. T. Mihaiu, Politica… , Vol. II, pp. 47-48.*

The implementation of this dual reform gave birth to two not necessarily conflicting, but somewhat different points of view, especially in terms of the interplay with the National Bank of Romania and its shareholders. The incumbent Conservative government, inspired by the ideas of the *Junimea* movement and headed by Theodor Rosetti (12 November 1888-22 March 1889), was of the opinion that both reforms, making up a unitary package, had to be adopted and imposed upon the NBR's shareholders based on the principle that the state was entitled in itself to set the monetary regime and the central bank's operating framework. The Liberal-Conservative government headed by Lascăr Catargiu (29 March-3 November 1889), which took office from Rosetti's Cabinet, believed that the aforementioned reforms could only be pushed through with the central bank's support and consent, in order to safeguard the real consolidation of the domestic currency[23].

The first version of the law introducing gold monometallism was adopted on 29 May/10 June 1889, although several preliminary steps had been skipped. On the one hand, the authorities lacked the necessary means for the demonetisation of lei 5 silver coins starting with the NBR's metal stock, which had to be converted into gold. On the other hand, the negotiations between the Ministry of Finance led by Menelas Ghermani and the National Bank of Romania, which had started as early as February of 1889, came to a standstill and so the consent of the Bank's shareholders for amending the statutes could not be secured until the adoption of the law[24]. Under the circumstances, the law was not submitted to the King's approval and was not enacted[25].

The unyielding stance of the central bank's senior executives to the desideratum of the *Junimea*-inspired conservatives to amend the NBR's Statute was triggered by a mix of inextricably linked economic and political interests. Specifically, it was a well-known fact at the time that liberal politicians had high economic stakes in the National Bank of Romania. Against this background, central bank officials perceived the conservative government's attitude, embodied by the finance minister, as

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[23] *Victor Slăvescu, Viaţa şi opera lui Menelas Ghermani 1834-1899, Vol. I, "Magazin Istoric", Cultural Foundation Publishing House, Bucharest, 2004, p. 299.*

[24] *Ibidem, pp. 175-178.*

[25] *Ibidem, pp. 299, 313-314.*

a politically-driven challenge to their control over the issuing house. Indeed, there must have been something more than strictly economic motivations for the reforms to explain both parties' uncompromising stand. In this context, the Conservative Liberals in Lascăr Catargiu's Cabinet were more prone to negotiations and chose to postpone any final decisions ahead of full-fledged preparations for implementing reforms.

Upon regaining office on 5/17 November 1889[26], finance minister Menelas Ghermani confronted yet again state institutions with the issues specific to the domestic monetary system. Hence, the government enacted the piece of legislation amending the law on the national monetary system by introducing gold monometallism on 14/26 March 1890. The gold leu weighing 0.3226 g and with a fineness of 900‰ became the country's currency unit. Silver and bronze coins became fractional coins. They are legal tender for any amount not exceeding lei 50 and lei 5 respectively. Foreign coins with the same technical features as the gold leu were legal tender in Romania. Currency issuance was a prerogative of the government. Holders of lei 5 silver coins were entitled to request their exchange for gold coins within one year from the enactment of the law[27].

At the same time, the authorities also passed the Law on the demonetisation of silver coins and the changeover to gold coins[28]. Compared with the previous attempt, this time the amendments to the monetary law and the changeover to the gold currency were under the scope of two distinct pieces of legislation. According to the changeover law, the Ministry of Finance was to oversee the conversion of the lei 5 silver coin into gold coins up to the amount of lei 40 million. The changeover started with the NBR's metal stock.

The success of these changes and eventually of the agreement with the National Bank of Romania hinged on the actual methods and costs of the changeover. The Ministry of Finance initiated the necessary steps for converting the lei 5 national coin into gold on 17/29 March 1890, i.e. the very day the two laws were published. During the preliminary talks in the run-up to the adoption of the new law, the Ministry of Finance

[26] *Ion Mamina, Ion Bulei, Guverne şi guvernanţi 1866-1916, Silex, Bucharest, 1994, p. 71.*
[27] *G. C. Marinescu, Banca Naţională a României, Legi, statute…, pp. 312-316.*
[28] *Ibidem, pp. 317-318.*

representatives had failed to convince the NBR officials to start the changeover for the silver coins in the Bank's vault. Behind the refusal of the central bank's management stood the reluctance to accept the enforcement of a law that brought about changes to the NBR Statute without the prior consent of the Bank's general meeting of shareholders[29]. The Ministry of Finance launched the changeover procedures by publishing calls for tender in the media to lease the conversion of lei 5 silver coins into gold in exchange of lei 30 million. The contract was awarded to Torchs & Fils at a price of gold franc 73.75 per silver franc 100, payable in two instalments, one worth silver lei 10 million and the other, silver lei 15 million[30].

In the meantime, the silver coins in the NBR's vault were being exchanged for gold, with the Ministry of Finance exchanging coins worth lei 200,000 on a daily basis. This was accomplished via a cunning scheme: while maintaining its hostility to the enforcement of the law that would alter its statute without the shareholders' consent, the central bank gave its nod to the request submitted by the Ministry of Finance and credited the government with lei 1.9 million in silver coins that were to be converted into gold[31]. This trade-off had been suggested by the Bank's management itself during the talks held on 10 March 1890 in the General Council, when debates focused on the changeover starting with the NBR's stock. Specifically, the formal response drafted by the General Council stated that "the same as it has done in the past, the Bank shall continue to provide support to the government in relation to any operations and demands that do not imply changes in the central bank statutes and it shall continue to extend loans to the government either via treasury bills or securities, under special conditions to be defined by the General Council."[32]

Following the successful changeover, the government decided to enact the new currency law on 15/27 October 1890. The hawkish statements

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[29] *Victor Slăvescu, Viaţa şi opera., Vol. II, p. 94; see also I. C. Băicoianu, Istoria politicii., Vol. II, Part I, Bucharest, 1932, pp. 280-281, 282-283.*

[30] *Victor Slăvescu, Viaţa şi opera, Vol. II, p. 145.*

[31] *Ibidem, p. 289.*

[32] *I. C. Băicoianu, Istoria politici, Vol. II, Part I, pp. 282-283, see also Mihaela Tone, Cristian Păunescu, Istoria Băncii Naţionale a României în date, Vol. I, 1880-1914, 2nd revised edition, Bucharest, 2006, pp. 150-151.*

notwithstanding, the National Bank of Romania complied with the provisions of the law, given that its stock consisted almost entirely of gold and the lei 5 silver coins were no longer unlimited legal tender. Gold monometallism thus became reality in end-1890 Romania.

However, the central bank's reluctance to acknowledge the changes to its Statute implied by the new state of affairs was still a fact. In order to fathom the rationale behind this opposition, one needs to go back to the early stages of the negotiations. Back in February of 1889, during the talks between representatives of the Ministry of Finance and NBR senior officials, it was clearly pointed out that the central bank could not accept the conditions imposed by the government, namely: (i) restricting the scope of the Bank's operations by withdrawing the right to discount warrants; (ii) capping the purchase of government securities to one half of the central bank's share capital; (iii) raising the metal stock from 33 percent to 40 percent of the amount of notes issued with the obligation of paying the banknotes on presentation in gold only; (iv) discontinuing the issue of lei 20 banknotes. Changes were also put forth with regard to the Bank's organisation and management, i.e. reducing the number of directors and comptrollers, while also shortening their terms in office and cutting profit-related payments. Furthermore, the Bank was compelled to set up branches and agencies in each county seat[33].

The NBR's General Council refused to accept these conditions and requested that a commission be set up in order to negotiate the proposed pieces of legislation and identify the most appropriate version to be submitted to the NBR general meeting of shareholders for approval. As already pointed out, the finance minister turned down the proposal and launched the legislative process without central bank support. The NBR management protested against this state of affairs and demanded that the draft law altering the issuing house's statute be debated by lawmakers only after the shareholders had given their consent. The unwavering stand of the NBR senior executives was one of the reasons why the law was not promulgated in 1889.

[33] *Mihaela Tone, Cristian Păunescu, Istoria Băncii., Vol. I, pp. 138-139, see also Victor Slăvescu, Viața și opera., Vol. I, pp. 175-178.*

Several months later, following the adoption of the first two laws introducing gold monometallism in March 1890, the government succeeded in obtaining the adoption and the publication on 21 June/3 July 1890 of the law altering the NBR's organisation[34], although an agreement with the central bank had not been secured. According to the new regulation, the central bank's metal stock had to account for at least 40 percent of the total amount of banknotes issue. The banknotes were convertible into gold. The central bank and the government were to agree on the actual shape of the notes, the type of issue and the quantity per denomination. The NBR could issue lei 100, lei 500 and lei 1,000 banknotes, while lei 20 notes were to be withdrawn from circulation over a four-year time span.

The Bank's management refused to accept the enforcement of the latter piece of legislation, on account of the fact that it had been adopted without the NBR shareholders' consent. Several rounds of talks were held between the Ministry of Finance and the central bank throughout 1890-1892 with the aim of amending the NBR Statute in line with the law passed in 1890. In the meantime, the Bank ensured the convertibility of its banknotes into gold and the 40 percent coverage of its issue, yet refused to acknowledge this state of affairs as compliance with the provisions of the law of June 1890. Negotiations finally bore fruit as late as February 1892, when a convention was signed between the government and the central bank. The agreement was sanctioned by the extraordinary general meeting of the NBR's shareholders on 2/14 April 1892[35], so that a new piece of legislation amending the NBR Law was enacted on 31 May/12 June 1892[36]. Specifically, the gold coverage of the NBR issue was to stand at 40 percent, while banknotes were convertible into gold or gold foreign exchange that were officially quoted in Romania. Consequently, 30 percent of the metal stock could consist of bills of exchange denominated in pounds sterling or German mark, which rendered the cover stock more flexible in terms of meeting the banknotes conversion demand in times of crisis. According to the new regulation, the government had no say in the issue of banknotes, since the

[34] *G. C. Marinescu, Banca Națională a României, Legi, statute….., pp. 148-155.*
[35] *Ibidem, pp. 151-161.*
[36] *Ibidem, pp. 162-164.*

NBR Statute clearly stipulated that "the shape of the notes, the type of issue and the quantity per denomination shall be determined by decision of the General Council". In addition, the lei 20 banknote was no longer withdrawn from circulation, but its issue could only account for up to 20 percent of the total amount.

This marked the final stage of the monetary system reform in Romania. For more than two decades to come, until the outbreak of World War One, the domestic currency kept its poise using gold monometallism, a monetary system already validated worldwide.

To conclude, it is safe to assert that the monetary system of modern-day Romania based on the gold standard emerged from a lengthy strut and fret of the country's elite between economic imperatives and political desiderata. The 25-year time span since organising the national monetary system in 1867 until the full adoption of gold monometallism in 1892 may be looked upon as a period of diligent quests for national coins and banknotes meant to emphasise state independence and come closer into line with other European monetary systems. The adoption of the gold-silver bimetallism, warranted by the political and ideological ties to France and the scarcity of domestic capitals, proved less beneficial to the Romanian economy and society than initially hoped for. And this was primarily due to Romania's failed attempts to join the LMU. The reasons for this failure were both political and economic. During 1867-1878, Romania was not an independent state, which meant that joining international treaties and conventions – even economic ones – was difficult to accomplish. The recognition of state independence came too late, as the glory days of the Latin Monetary Union and bimetallism had already passed: the depreciation of silver globally implied that bimetallism was no longer an option for the LMU, as more and more European countries adopted gold monometallism.

Faced with the realities of international monetary developments, indicating that bimetallism could no longer ensure harmonisation with the European systems, to which added the realities of the domestic economy (where bimetallism had proven its limits, as the *agio* crisis seriously hampered the development of the Romanian economy), the country's elites showed increasing propensity for the monetary system that had proven more stable, i.e. gold monometallism. Given the latest developments, this option helped achieve both the political goal of keeping in touch with the European realities and the objective of developing the domestic economy based on a balanced and globally-compatible monetary system.

References:

Axenciuc, V. *Evolutia economică a României. Cercetări statistico-istorice 1859-1947*, Vol. III, Romanian Academy Publishing House, Bucharest, 2000.

Băicoianu, I. C. *Istoria politicei noastre monetare şi a Băncii Naţionale. Acte şi documente*, Vol. I-II, Bucharest, 1932-1939.

Bujoreanu, I. M. *Legiuirile României vechi şi noi*, Vol. I

*** *Cota oficială a Bursei din Bucureşti* (*The Bucharest Stock Exchange List*) 1882-1890.

*** *Bugetul general al statului* 1881-1890.

Isărescu, M. C. *Reflecţii economice*, Vol. I, Expert Publishing House, Bucharest, 2001.

Mamina, I., Bulei, I. *Guverne şi guvernanţi 1866-1916*, Silex, Bucharest, 1994.

Marinescu, G. C. *Banca Naţională a României*, *Legi, statute, dispoziţiuni monetare, convenţiuni financiare*, Bucharest, 1939.

*** *Memoriile regelui Carol I de un martor ocular,* Vol. I, 1866-1869, the second edition and preface by Stelian Neagoe, Machiavelli Publishing House, Bucharest, 1994.

Mihaiu, U. T. *Politica monetară şi a băncilor României,* Vol. I, Bucharest, 1905.

*** *National Bank of Romania,* Reports of the Board of Directors submitted to the General Meeting of Shareholders*, 1881-1890.*

Oualid, W. *Leçons sur la monnaie et les problèmes monétaires*, Paris, 1927.

Slăvescu, V. *Viaţa şi opera lui Menelas Ghermani 1834-1899*, Vol. I, „Magazin Istoric" Cultural Foundation Publishing House, Bucharest, 2004.

Stoenescu, G. V. *Aspecte de doctrină monetară în gândirea economică romanească din a doua jumătate a secolului al XIX-lea*, în volumul *130 de ani de la crearea sistemului monetar românesc modern*, Enciclopedica Publishing House, Bucharest, 1997, pp. 402-419.

Tone, M., Păunescu, C. *Istoria Băncii Naţionale a României în date*, Vol. I, 1880-1914, 2nd revised edition, Bucharest, 2006.

ARE EMERGING MARKET SOVEREIGN BOND PRICES AFFECTED BY POLITICS, DIPLOMACY OR THE ECONOMY?

THE ROMANIAN GOVERNMENT BONDS ON THE PARIS STOCK EXCHANGE DURING THE INTERWAR PERIOD

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Abstract

Political, economic and diplomatic reasons may affect sovereign bond prices. Indeed, since they are issued by a sovereign entity, repayment decisions rest in the hand of the issuing government. Reputation has been presented as one if not the key reasons states repay their debts. Based on an original database of Romanian bonds traded in Paris during the interwar period, this paper investigates whether the markets paid more attention to the governments' reputation, i.e. the reputation abroad (diplomatic ties) or simply to the economic fundamentals. A structural break analysis shows that international treaties may play an important role in sovereign debt valuation.

Keywords: Sovereign Debts, Bond Pricing, Romania, France, Emerging Markets, Default, Financial History

JEL Classification: N24, F34, G15

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1. Introduction

Sovereign bonds represent a major financial asset both in terms of amounts traded[1] and in terms of implications on the whole economic and political system[2]. Sovereign debts present quite unique features: backed by the rights and the powers of the Government that issued them, their reimbursement is mainly conditioned by the simple willingness of their issuer, as there is no court of justice to go to and no guarantee that a lender of last resort will intervene in case of financial distress. Hence, their evaluation is strongly influenced by a mix of economic, political and diplomatic factors. The current European public debt crisis and its consequences on the economic and political relationships between the EU members is one illustrating example: will this dramatic financial episode contribute to enforcing European cooperation and unification namely at the fiscal and political levels or, on the contrary, is it the signal that Euro scepticism "won the battle"? Since policy makers watch nervously bond prices, it is crucial to identify and understand the factors that may influence them and to measure the response of these prices to the different potential factors.

Sovereign bond markets represented one of the main (if not the main) asset on stock exchanges for a long time. Bond markets have provided the most important part of the international financing for emerging countries since the 19th century and the Paris Stock Exchange was one of the leading creditors, especially at the beginning of the 20th century. An important number of Latin American and Central and Eastern European countries collected huge amounts of capital by issuing their sovereign debts in France. These foreign bonds provided highly attractive interest rates for the potential subscribers who were thus willing to include them in their portfolios. However, the lack of rating and strict regulatory procedures rendered the risk evaluation of such assets very complex, especially for small, private investors, not familiar with stock market practices. Hence, an important part of these sovereign debts, often

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[1] *Following the estimations provided by the Bank of International Settlements, the international bond market amounted at 82.2 trillion dollars in November, 2009 out of which sovereign debts represented 41 percent, i.e. 34 trillion dollars, slightly less than the global stock market that amounted at a total of 44.2 trillion dollars.*

[2] *James Carville, President Clinton's political counsellor once declared: "I used to think that if there was reincarnation, I wanted to come back as the president or the pope or as a 400 baseball hitter. But now I would like to come back as the bond market. You can intimidate everybody". (Wall Street Journal, February 25, 1993, p. A1).*

accompanied by intangible guaranties, have *ex post* proven to be very risky, volatile financial instruments, ending up in default. Historical evidence can therefore contribute to a better understanding of the behaviour of sovereign bonds and more specifically the reaction of their market prices following particular monetary, economic, political and diplomatic events.

A large part of literature on sovereign debt has tried to understand why countries would repay their debts. The states' motivation to repay has indeed attracted a huge interest. Several explanations have been presented to explain the observation that despite the absence of enforcement mechanisms bondholders agree to lend large amounts to states and states tend to repay them. Reputation has been first presented as one, if not the, main reason states reimburse their debts. Eaton and Gersovitz (1981) propose a theoretical model which includes a potential future exclusion of capital markets for defaulting borrowers. They show that this potential exclusion may explain the maximum amount borrowers are willing to lend to a given country. On the other hand, Bulow and Rogoff (1989) suggest that reputation alone cannot explain lending to less-developed countries (LDC's). Their analysis stresses the role of direct sanctions to convince creditors to agree lending. Rogoff and Zettelmeyer (2002) build on this idea. Even though they acknowledge the importance of reputation, they consider that it should not be viewed as the sole cost of default.

Alternative motivations to repay have been suggested too. Military sanctions have for a long time been viewed as ineffective (Tomz, 2007) to get any reimbursement. Eichengreen and Portes (1989) consider that defaults were in fact an excuse to intervene and that reimbursement was mostly a minor element in the decision process. Mitchener and Weidenmier (2005) analyze the impact of the 1904 Roosevelt Corollary to the Monroe doctrine. They show that a credible threat of intervention had a clear and direct impact on sovereign bonds. The role of foreign bondholders associations has also been investigated. Borchard (1951) and Fishlow (1985) have suggested that these associations were powerful enough to convince defaulting countries to come at the negotiation table. Esteves (2007) shows empirically that the quality of bondholders' representation mattered for the terms of settlement and the costs of renegotiation. Eventually, Rose (2005) finds that defaults lead to trade sanctions.

Fear of reputation loss, military interventions, actions by foreign bondholders or even trade sanctions are in a sense driven by the

relationship between the country where the debts were floated and the issuing country. By the same token, in some cases, the country where the bonds were floated could decide to support the bond prices of an Allied country to keep good relationships or to support an ally. During the First World War, France advanced the coupons for the Russian bonds traded in Paris to help its military ally (Landon-Lane and Oosterlinck, 2006). After the repudiation of the Tsarist bonds by the Soviets, French bondholders expected the French state to bail them out on the grounds that investors had been pushed to buy the bonds for diplomatic reasons (Landon-Lane and Oosterlinck, 2006; Bernal et al., 2010). Indeed, such expectations might explain the fact that Russian repudiated bonds recorded higher market prices when compared to other sovereign bonds experiencing repayment crisis, as for example Romanian bonds in default in the 1930s (Oosterlinck and Ureche-Rangau, 2005; Oosterlinck and Ureche-Rangau, 2008). As a matter of fact, the French government very partially bailed out French bondholders after heated debated in the parliament. Pecquet and Thies (2010) show that during the Mexican-American war, Texas Treasury notes were affected by diplomatic news but not by battle outcomes. All these elements point to the importance of diplomacy on sovereign bond prices.

This paper focuses on a specific case for which geopolitical consideration could be expected to play a pre-eminent role: Romania during the interwar period. Interwar Romania is an ideal candidate for the study of foreign sovereign debts. The proximity with France as well as its economic potential allowed Romania to collect important amounts of foreign capital during the Interwar period, more particularly in France. A third of the Romanian public debt (foreign and domestic) was negotiated in Paris for a total amounting of approximately 1.02 billion French Francs. Romanian sovereign bonds traded in Paris are therefore as representative as can be of Romania's foreign debts during the period under study. The Romanian position on the world diplomatic sphere provides, as will be discussed below, a fascinating example to analyze the respective role of economic, diplomatic and geopolitical news on bond prices.

Even though Romania was characterized by a desperate need for foreign capital due to an archaic organisation of its productive, credit and fiscal systems, bondholders had in fact several reasons (economic, political and probably psychological) to consider that Romania would manage to pay back its debts. On the economic side, Romania's natural resources

provided undeniably a great potential. Its major exported goods, mainly cereals and oil, could lead the investors to believe that their debt were sustainable. Geo-political and psychological considerations certainly played a crucial role too. During the First World War, Romania had opened a new front against Austria-Hungary. This front provided a clear relief to the Allies as it diverted part of the Central Powers forces from the other fronts. The military campaign proved however disastrous as two-thirds of the country soon fell under enemy control. After the war these actions provided Romania with a strong capital of sympathy in France. This capital of sympathy was further enhanced by the fact that of all the Balkan countries, Romania was the only one to use a Latin language, an element favouring closer ties with France.

More pragmatically, Romania's geographical location, close to Germany and next to the Soviet Union, rendered the relations with Romania of crucial importance for France. Following the First World War, victorious Romania saw its territory increase substantially. The Interwar period proved to be extremely tumultuous on the political side. In 1925, the heir to the throne, Carol, was forced to renounce his rights following numerous scandals related to his private life. His father, Ferdinand 1st, bequeathed the throne to his grandson Michael, who became king at the age of 6 in July 1927. After a short exile in France, Carol came back to Romania, with the support of the ruling National Peasant Party, to reclaim the throne. He was crowned king under the name Carol II on June 8th 1930. From the 1930s on, Romania experienced an acute political instability, with no less than 25 governments for the decade 1930-1940. In parallel, fascist and nationalist parties (League of National-Christian Defense – LANC – and the Iron Guard) gained more and more ground. Despite its aversion to these parties, Carol II appointed Octavian Goga (from the LANC) as prime minister in December 1937. The first anti-Semitic laws of the country would be promulgated shortly afterwards (January 1938). After a short-lived attempt to rule as dictator, Carol II had to relinquish the power to Armand Călinescu in March 1939, an Ally of France and Great-Britain and firm opponent to Nazi Germany. Following his assassination by members of the Iron Guard, and despite Carol II's attempts to let Romania remain neutral, the country shifted towards the Axis. On September 1940, a fascist government took over, forcing Carol II to abdicate and leading the country to join officially the Axis in June 1941.

Romania thus provides a perfect example of a country for which the country where the bonds were floated could have a political reason to financially help if it were to experience troubles to repay its debts. The remainder of the paper will analyze to which extent bondholders were sensitive to these elements or if they mostly focused on financial and economic news. To assess which elements were perceived as important at the time, the paper relies on a methodology allowing to identifying, endogenously, the most important financial shocks which may explain the behaviour of the Romanian bonds on the Paris Stock Exchange market during the Interwar.

The balance of the paper is as follows. The next section describes the data and the methodology. The third section presents the empirical results and section IV concludes.

2. Data and Methodology

Data

The data was hand collected from the *Cours Authentiques des Agents de Change* and consists in monthly bond prices over the time period stretching from December 31, 1920 to December 31, 1939. Our sample contains both Romanian bonds and French government bonds traded on the Paris Stock exchange market during the Interwar period, these last ones being used as benchmark[3].

[3] *The Romanian sample is composed by twelve bonds: the 4 percent 1890, 1894, 1898, 1905 and 1905B redeemable consoles (rentes), the 4 percent 1896 and 1910 loans, the 4 percent 1922 Treasury bills consolidation loan, the two unified consoles 4 percent and 5 percent 1929 issued following the Paris agreement of 1928 concerning former debt unification (hence including and all the issues before 1920 who disappear after this date) and the two monetary stabilization and development loans 7 percent 1929 and 7.5 percent 1931 (both issued by the Autonomous Monopolies House of the Kingdom of Romania). The French bonds include the 3 percent 1820 perpetuity and the 3 percent 1878 redeemable consoled, the 3½ percent 1914 redeemable console, the 5 percent 1915-1916 perpetuity, the 4 percent 1917 and 1918 perpetual loans, the 5 percent consolidation console (redeemable) and the 6 percent consolidation perpetuity of 1920, the 4 percent 1925 perpetuity with exchange rate guarantee, the 6 percent redeemable console and bond of 1927, the 5 percent 1928 redeemable rente, the 4½ percent 1932 consolidation loan (redeemable console), the 4.5 percent 1933 and 4 percent 1934 Treasury bonds, the 5 percent 1935 bonds, the 4.5 percent 1937 loan with exchange rate guarantee, the 5 percent 1938 bonds of the National Defence House and the 5 percent 1939 redeemable rentes (public short and medium term - debt consolidation loan).*

More specifically, we use the market prices and financial characteristics of two Romanian bonds, the 4 percent 1905 redeemable consol (*rente*) and the 4 percent 1929 (unification) consol, and of one French government consol, the 5 percent 1920. This choice is motivated by at least three reasons. First, as we aimed at covering the whole Interwar period, we had to look for bonds quoted during the whole time period under study. For the Romanian sample, because of conversions and debt unifications, none of the bonds lasted for so long. Hence, we picked those which covered the largest part of this period. Second, we decided to eliminate bonds characterized by particular financial features, such as principal or coupons expressed in other currencies than the French Franc (in order to avoid additional sensitivity to exchange rate risk). This was for example typically the case of the 4 percent 1922 Romanian Treasury bills consolidation loan, denominated in British pounds. Third, we selected bonds with similar financial characteristics but also bonds which are representative of their respective group of securities. The three bonds mentioned above fulfil all these requirements. The Romanian 4 percent bonds provide the same nominal, semi-annual coupon. They have similar maturities (40 years for the 1905 one and 41 years for the 1929 bond) and both are the result of former debt conversions (the 1905 console) / unifications (the 4 percent 1929 consol). They represented, on average, up to one third of the total market capitalization of the Romanian bonds negotiated in Paris during the time period under study. Furthermore, the 4 percent 1905 consol gave birth to the 4 percent 1929 *rente* following the 1928 Paris debt unification agreement. This guarantees the continuity in our sample since we use both of them. From the sample of French government bonds, the 5 percent 1920 consol appeared as the closest, in terms of technical characteristics, to our Romanian bonds: it is a redeemable, semi-annual coupons consol, with a maturity of 60 years. This bond represented a share varying between 10 percent and 25 percent of the overall market capitalization of French sovereign bonds[4].

[4] *One has to bear in mind the fact that the Romanian sovereign bonds portfolio is composed by twelve bonds while there are nineteen French government bonds, which explains the lower market capitalization part of the most representative French consol.*

The yields to maturity of these bonds (over the time period stretching from December 1920 to March 1929 for the 4 percent 1905 consol and from April 1929 to December 1939 for the 4 percent 1929 consol) allowed us to derive the spread with respect to the benchmark (the 5 percent 1920 bond). For each bond, the data needed for the computation of the yields (principal, number of outstanding bonds, maturity, coupon payment dates, and reimbursement conditions) were hand collected from the documents provided by the debtor when offering the bonds for public subscription[5].

Methodology

A large number of studies have attempted to determine which events were perceived at the time of the occurrence as crucial by financial markets. Financial data provide new insights regarding, among others, what could viewed as turning points during wars. Capital market data offer significant advantages when one wishes to assess the perceived importance of given events when they happened. Financial markets are known to have a high predictive power and market actors have an incentive to treat all relevant information since they would be penalized if they did not assess the situation properly (Waldenström and Frey, 2007).

The most commonly encountered methodology relies on the analysis of structural breaks. Guinanne, Willard and Rosen (1996) were probably the first to apply such a methodology in a historical context. Their analysis of structural breaks on greenbacks gold prices during the Civil War showed, among others, that the main shock was linked to Jubal Early's retreat, an event nowadays considered as minor by most historians. This methodology has subsequently been applied to a vast number of wars or conflicts: the US civil war (Brown and Burdekin, 2000; Weidenmier, 2002) the second world war, (Brown and Burdekin, 2002, Frey and Kucher, 2001, Frey and Waldenström, 2004 and Oosterlinck, 2003) or the Israeli-Palestinian conflict (Zussman et al., 2007) but also to analyze market anticipations regarding regime change (Flandreau and Oosterlinck, 2011).

To determine the events which at the time were perceived as important, we follow the methodology developed by Bai and Perron (1998, 2003).

[5] *We built up our own reimbursement scheduling tables for each bond.*

This allows detecting the number and location of the structural breaks that might exist in the time paths of a time series.

We use the following general model subject to m breaks ($m+1$ regimes):

$$y_t = \delta_j z_t' + u_t \qquad t = T_{j-1}+1,...,T_j,\ j = 1,...,m+1 \qquad (1)$$

where y_t represents the observed, dependent variable, i.e. yields spread, $z_t(q \times 1)$ is the vector of covariates, u_t is the disturbance at time t, δ_j is the corresponding vector of coefficients and the indices $(T_1,...,T_m)$ are the unknown break points. The estimation allows detecting simultaneously the unknown regression coefficients and the break points on T available observations. This corresponds to a pure structural change model, where all the coefficients may change, with no constraints regarding the variance of the disturbance term, i.e. breaks in the variance are allowed provided they occur at the same dates as those in the parameters of the regression. The algorithm uses the principle of dynamic programming, where the computation of estimates of the break points uses the global minimisers of the sum of squared residuals (Bai and Perron, 2003). More specifically, the different estimators result from applying OLS segment by segment, without constraints among them. The sums of computed squared residuals are stored and the dynamic programming evaluates the partition which achieves a global minimization of the overall sum of squared residuals. Convergence of the estimation is obtained under a large set of assumptions (however precluding variables with autoregressive unit root). It allows different distributions both for the regressors and the errors, as potential serial correlation and/or matrix robust heteroscedasticity are taken into consideration and corrected in order to obtain consistent estimators.

The test statistics for multiple potential breaks include a supF test of no structural break, i.e. $m = 0$, versus $m = k$ breaks, based on the global sum of squared residuals minimization which is equivalent to maximizing an F-test with spherical errors. The asymptotic distribution is dependent on the choice of the trimming parameter ε while imposing a minimal length h of a segment, i.e. $\varepsilon = h/T$. First, Bai and Perron (1998) propose two tests, called double maximum tests, of the null hypothesis of

no structural break against an unknown number of breaks, $UD_{\max}$ and $WD_{\max}$ [6] and provide critical values for $\varepsilon = 0.05, 0.10, 0.15, 0.20$ and 0.25 (with the corresponding maximum number of breaks, i.e. 5, 3 and 2 respectively). Second, Bai and Perron (1998) also introduce a test for l versus $l+1$ breaks, i.e. $\sup F_T(l+1|l)$, that is applied to each segment containing observations from T_{i-1} to T_i, $i = 1,...,l+1$. The model with l breaks is rejected in favour of a model with $l+1$ breaks whenever the overall minimum value of the sum of squared residuals is larger than the sum of squared residuals of the $l+1$ breaks model. Again, critical values are provided for different values of the trimming parameter ε. Finally, the information criteria used to select the dimension of the model are the classical ones, i.e. Bayesian Information Criterion (BIC) and the modified Schwartz criterion (LWZ). However, given certain well known weaknesses of these two criteria[7], Bai and Perron's method suggests using a sequential application of the $\sup F_T(l+1|l)$ test using the sequential estimates of the breaks.

We apply this breakpoint detection procedure on the yield differential between the Romanian and the French government bonds, i.e. the spread, in order to correct for the potential French market effect affecting Romanian bonds. This differential is thus a measure of relative credit risk characterising Romanian bonds as all the "systematic"/market risk is encapsulated into the French bond yield. The spread will therefore capture the Romanian bonds "specific" risk, sensitive to economic, monetary, political and diplomatic events mainly affecting Interwar Romania and its relations with the other European countries, most particularly France.

Once the number and the location of the breaks identified, we then turn back to historical evidence in order to find potential explanations for such behaviour and hence provide insights on the potential factors that may have impacted the Romanian sovereign bonds over the time period under study.

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[6] *$UD_{\max}$ is an equal weighted test while $WD_{\max}$ applies weights to the individual tests in order for the marginal p-values to be equal across values of m.*

[7] *Especially in the presence of serial correlation and even when no serial correlation is present in the errors but a lagged dependent variable, with large coefficient, is present.*

3. Empirical Results

Our analysis aims at proving insights on the information content of Romanian sovereign bond yields traded on the Paris market during the Interwar period. The presence of breakpoints would indicate how investors reacted to important economic and political events characterising the time period under study and underline both the factors that may influence and explain the behaviour of sovereign debt yields and, at the end, market prices and the importance attributed by market operators to these different events. Romanian bonds during the interwar period could have been affected by economic news (they eventually ended up in default), by protracted negotiations regarding their reimbursement (which took a highly diplomatic turn) and by the war prospects. Our analysis will show which of these elements were deemed as important at the time. It will also provide insights as to whether bondholders expected the war to break out in Romania.

Empirical evidence

Figure 1 shows the evolution of the yields to maturity of our three bonds. One can easily observe that except for three, and rather short, periods (1926, April 1928 to September 1931 and August 1937 to January 1938, i.e. roughly five years out of the total period of 19 years) the yields of our Romanian bonds are systematically and significantly above the yield of the 5 percent 1920 French console. Romanian bonds thus provide higher expected rewards to their bondholders. This in turn also implies that they were perceived as riskier than their French counterpart. Figure 2 offers the illustration of the resulting yield spread.

For the first sub period over which we observe a negative spread, i.e. 1926, one explanation might be found in the confidence crisis that France experienced starting with 1924, fuelled by the monetary crisis of the French Franc and the huge scandal of the falsified balance sheets ("faux bilans") of the Bank of France revealed to the public in April 1925[8]. This episode significantly affects the French consols market prices; as a consequence, market investors could have redesigned their portfolios so to include other

[8] *It was revealed that since March 1924, the Bank had manipulated its weekly balances in order to report a lower amount of notes in circulation (for more details, see Blancheton, 2005 and Mouré, 2002).*

financial assets, namely foreign sovereign bonds, as the Romanian ones[9]. Their price could therefore have increased, accompanied by an opposite evolution of their yields. One may even wonder whether the opposite price direction reflected a form of flight to quality.

In 1927, in a context of renewed confidence and increased capital inflows, the interest rates on the French market, particularly for long term investments, started decreasing. This evolution was supported by the legal stabilisation of the French franc in 1928. The Romanian bond yields followed the same trend. The unified *rentes* issued after the Paris agreements in 1928, among which the 4 percent 1929 consol, present some particularities regarding the payment of their "theoretical annuities"[10] which contributed to lowering even more their yields to maturity. The burst of the banking crises in Central and Eastern Europe in September 1931 (panics and bank runs) put an end to the decreasing trend in yields, even more pronounced in the case of the Romanian ones.

Finally, Romanian bonds seem to have benefited from the short lasting monetary and financial crisis experienced by the French economy, combined to good economic perspectives in Romania during the second half of 1937. As a consequence, the yield curves invert, and the spread becomes negative again.

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[9] *The 4 percent 1922 Romanian consolidation loan was an ideal candidate for such a switch in the composition of market portfolios: expressed in British pounds, it provided an interesting protection against the instability and the French franc depreciation. The interest in this particular Romanian bond could have spilled over, hence including the other Romanian sovereign bonds negotiated on the market at the same moment.*

[10] *The 1928 Paris agreements stipulated that the debt service of the unified rentes was reduced until January 1951, i.e. 40 percent of the full amount due between January 1929 and December 1931, 41 percent in 1932, 42 percent in 1933 and so on, up to 100 percent of the amount due in 1951.*

Figure 1

The evolution of the yields to maturity of the 4% 1905 and 4% 1929 Romanian consoles with respect to the 5% 1920 French government consoles

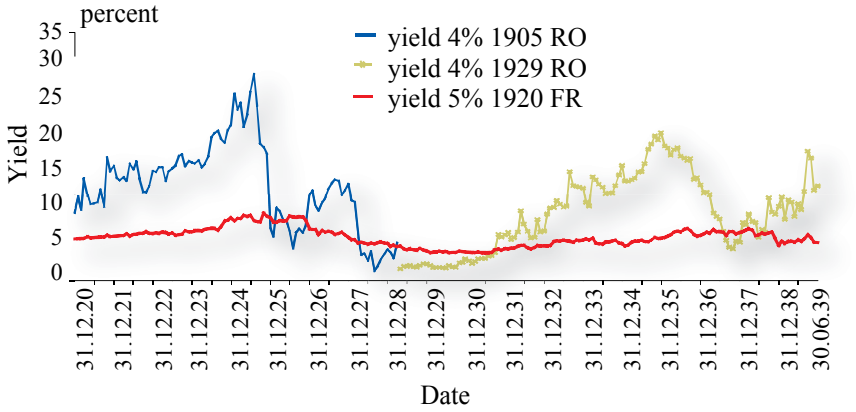

Figure 2

The yield spread

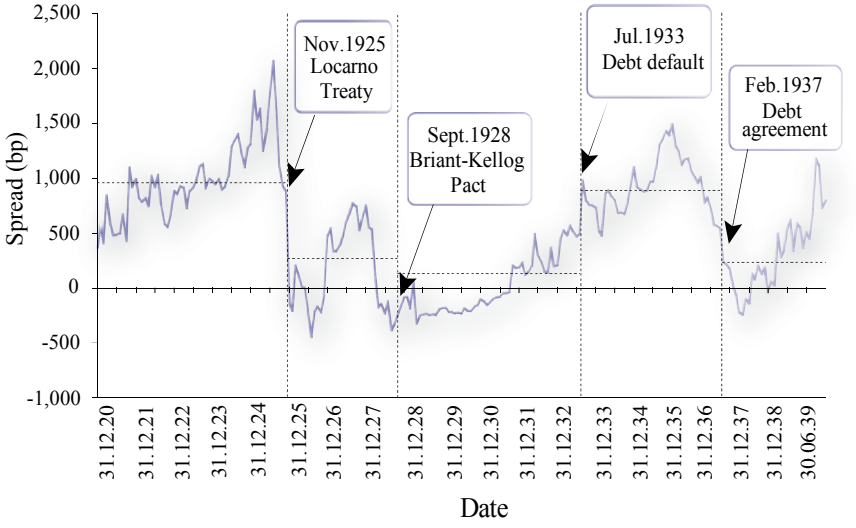

Table 1 summarizes the basic descriptive statistics of the three individual yields and the spread. As expected, the yields of the two Romanian bonds are highly variable compared to those of the French 5 percent 1920 bond. The mean and maximum yields are significantly higher for the 4 percent

1905 and 1929 Romanian consols than those recorded by the French *rente* while their minimum values are significantly below. Moreover, their standard deviations are also superior. The different tests for equality[11] (in means, medians and variances) all reject the null hypothesis (p-values equal to 0.0000). The yields are all positively skewed (even though only the French *rente* shows significant skewness) and platykurtic (significant kurtosis only for the Romanian 4 percent 1929 consol) while the Jarque-Bera test of normality points out that the French and the 4 percent 1929 Romanian consols are non Gaussian. The spread is also rather volatile; it varies between a minimum of -4.44 percent (July 1926) and a maximum as high as 20.71 percent (July 1925), with a mean value (in monthly terms) around 5 percent and a comparable volatility, i.e. 5.29 percent. The spread is positively skewed (albeit non statistically significant), platykurtic and non normal.

Table 1

Descriptive statistics

	RO 4% 1905	RO 4% 1929	FR 5% 1920	Yield spread
Mean	13.3986%	9.5322%	6.1044%	5.1161%
Median	13.8616%	9.5303%	6.0708%	5.3705%
Minimum	1.3587%	1.6460%	3.9188%	-4.4361%
Maximum	29.1630%	20.8796%	9.5468%	20.7103%
Standard deviation	6.0460%	5.4033%	1.3395%	5.2912%
Skewness	0.1227	0.1527	0.4065*	0.1854
Kurtosis	2.7433	1.9792*	2.7312	2.2633*
Jarque-Bera	0.5255	6.1021*	6.9969*	6.4904*
(p-value)	(0.7689)	(0.0473)	(0.0302)	(0.0390)

Before looking for potential break points in our series of yields spread we first perform an Augmented Dickey-Fuller test (ADF) to check for the presence of unit roots. Results are presented in Table 2. They are strictly similar, independently of whether one considers the model with intercept only or with both intercept and trend: for all the series (yields and spread), we cannot reject the null hypothesis of a unit root.

[11] *Results are available upon request.*

Table 2

ADF test results

ADF	RO 4% 1905	RO 4% 1929	FR 5% 1920	Yield spread
Intercept	-1.6694	-1.8292	-1.5977	-2.6676
(p-value)	(0.4436)	(0.3650)	(0.4821)	(0.0813)
Trend and intercept	-2.3103	-1.9464	-1.7991	-2.6775
(p-value)	(0.4242)	(0.6243)	(0.7022)	(0.2470)

We then start looking for the presence of break points in the yields spread. As mentioned previously, we choose the spread in order to eliminate the "common" factors potentially affecting all the sovereign bonds quoted on the Paris Stock Exchange market, and hence focus on the specific behaviour of the Romanian bonds, i.e. credit risk quality of these Romanian bonds.

We estimate[12] three versions of the general model presented in (1), namely

– a pure structural change model in mean as follows:

$$y_t = \delta_j + u_t \qquad t = T_{j-1}+1,...,T_j \quad j = 1,...,m+1 \qquad (2)$$

– a structural change model in mean and trend, i.e.

$$y_t = \delta_{1,j} + \delta_{2,j} t_j + u_t \qquad t = T_{j-1}+1,...,T_j \quad j = 1,...,m+1 \qquad (3)$$

– the previous model including also the lagged dependent variable in the right side of the equation, i.e.:

$$y_t = \delta_{1,j} + \delta_{2,j} t_j + \delta_{3,j} \Delta y_{t-1} + u_t \; t = T_{j-1}+1,...,T_j \; t = T_{j-1}+1,...,T_j \; (4)$$

The choice of the second model was motivated by the results of the ADF tests. Indeed these results highlight the presence of a unit root both in the version with intercept only and in the version with intercept and trend. Finally, as our series of spreads shows significant autocorrelation up to lags as high as thirty[13], we also estimate the break point model with the lagged dependent variable, i.e. equation (4).

[12] *All the estimations were performed with GAUSS, starting from the codes generously made publicly available by J. Bai and Ph. Perron.*

[13] *For space reasons, we choose not to report the results of the Ljung-Box Q-statistics; they are however available upon request.*

Results are provided in Tables 3, 4 and 5 for a trimming parameter of $\varepsilon = 0.15$ and a maximum number of breaks equal to 5 which corresponds to segments with a minimum length[14] equal to 34.

Table 3

Results for the pure break model in mean

Model			**Specifications**			
$y_t = \hat{\delta}_j + u_t$			h = 34		m = 5	
Tests						
$\sup F_T(1)$ 119.1314*	$\sup F_T(2)$ 154.4768*	$\sup F_T(3)$ 136.9395*	$\sup F_T(4)$ 145.5276*	$\sup F_T(5)$ 257.0278*	$UD_{\max}$ 257.0278*	$WD_{\max}$ 564.0149*
$\sup F(2\|1)$ 120.0864*	$\sup F(3\|2)$ 63.9372*	$\sup F(4\|3)$ 8.5989				
Number of breaks selected						
			we use a 5% size for the sequential test			$\sup F_T(l+1 \mid l)$
Sequential	3					
LWZ	3					
BIC	3					
Estimates with 3 breaks						
			t-values in paranthesis for $\hat{\delta}_j$			
			the 90% confidence intervals for $\hat{T}_i$			
$\hat{\delta}_1$	$\hat{\delta}_2$	$\hat{\delta}_3$	$\hat{\delta}_4$			
0.0986* *(23.7896)*	0.0038 *(1.0973)*	0.0892* *(19.2512)*	0.0332* *(6.2037)*			
$\hat{T}_1$	$\hat{T}_2$	$\hat{T}_3$				
1925:11 *(1925:10-1926:1)*	1932:12 *(1932:11-1933:1)*	1936:12 *(1936:9-1937:2)*				
R-squared *0.637*	*Adj. R-squared* *0.632*					

* denotes significance at the 5% confidence level

[14] *The choice of these trimming parameters was dictated by Bai and Perron recommendations; as our sample is composed by 229 monthly observations we chose segments long enough to provide statistically significant evidence and avoid short lived noise being treated as a break. Meanwhile, the use of too long periods potentially leads to missing "true shifts" in the series.*

Table 4

Results for the pure break model in trend and mean

Model			**Specifications**			
$y_t=\delta_{1,j}+\delta_{2,j}t_j+u_t$			h = 34		m = 5	
Tests						
$\sup F_T(1)$ 299.1054*	$\sup F_T(2)$ 226.2778*	$\sup F_T(3)$ 401.8510*	$\sup F_T(4)$ 385.5572*	$\sup F_T(5)$ 467.0433*	$UD_{\max}$ 467.0433*	$WD_{\max}$ 915.7242*
$\sup F(2\|1)$ 117.4291*	$\sup F(3\|2)$ 108.5883*	$\sup F(4\|3)$ 120.8579*	$\sup F(5\|4)$ 0.0000			
Number of breaks selected						
			we use a 5% size for the sequential test			$\sup F_T(l+1\|l)$
Sequential	4					
LWZ	3					
BIC	4					
Estimates with 4 breaks						
			t-values in paranthesis for $\hat{\delta}_{i,j}$			
			the 90% confidence intervals for $\hat{T}_i$			
$\hat{\delta}_{1,1}$	$\hat{\delta}_{1,2}$	$\hat{\delta}_{1,3}$	$\hat{\delta}_{1,4}$	$\hat{\delta}_{1,5}$		
0.0501* *(7.8783)*	-0.0264 *(-0.79293)*	-0.1635* *(-6.8715)*	-0.0183* *(-0.3507)*	-0.5188* *(-5.7336)*		
$\hat{\delta}_{2,1}$	$\hat{\delta}_{2,2}$	$\hat{\delta}_{2,3}$	$\hat{\delta}_{2,4}$	$\hat{\delta}_{2,5}$		
0.0016* *(8.7596)*	0.0006 *(1.3151)*	0.0013* *(7.0061)*	0.0007* *(2.1592)*	0.0026* *(6.0912)*		
$\hat{T}_1$	$\hat{T}_2$	$\hat{T}_3$	$\hat{T}_4$			
1925:11 *(1925:10-1926:1)*	1928:9 *(1928:8-1928:12)*	1933:7 *(1933:1-1933:8)*	1937:2 *(1937:1-1937:3)*			
R-squared *0.797*	*Adj. R-squared* *0.789*					

* denotes significance at the 5% confidence level

Table 5

Results for the pure break model in trend and mean with lagged dependent variable

Model			Specifications			
$y_t=\delta_{1,j}+\delta_{2,j}t_j+\delta_{3,j}\Delta y_{t-1}+u_t$			h = 34		m = 5	
Tests						
$\sup F_T(1)$	$\sup F_T(2)$	$\sup F_T(3)$	$\sup F_T(4)$	$\sup F_T(5)$	$UD_{\max}$	$WD_{\max}$
299.9980*	227.4863*	334.2565*	350.8983*	466.6403*	466.6403*	874.4814*
$\sup F(2\|1)$	$\sup F(3\|2)$	$\sup F(4\|3)$	$\sup F(5\|4)$			
115.1138*	128.8481*	27.6242*	0.0000			
Number of breaks selected						
			we use a 5% size for the sequential test			$\sup F_T(l+1\|l)$
Sequential	4					
LWZ	3					
BIC	3					
Estimates with 4 breaks						
			t-values in paranthesis for $\hat{\delta}_{i,j}$			
			the 90% confidence intervals for $\hat{T}_i$			
$\hat{\delta}_{1,1}$	$\hat{\delta}_{1,2}$	$\hat{\delta}_{1,3}$	$\hat{\delta}_{1,4}$	$\hat{\delta}_{1,5}$		
0.0499*	-0.0221	-0.1633*	-0.0457	-0.5068*		
(7.5227)	*(-0.6844)*	*(-7.0676)*	*(-0.8766)*	*(-5.6755)*		
$\hat{\delta}_{2,1}$	$\hat{\delta}_{2,2}$	$\hat{\delta}_{2,3}$	$\hat{\delta}_{2,4}$	$\hat{\delta}_{2,5}$		
0.0016*	0.0005	0.0013*	0.0008*	0.0025*		
(8.5683)	*(1.2872)*	*(7.1918)*	*(2.6842)*	*(6.0357)*		
$\hat{\delta}_{3,1}$	$\hat{\delta}_{3,2}$	$\hat{\delta}_{3,3}$	$\hat{\delta}_{3,4}$	$\hat{\delta}_{3,5}$		
0.0013	0.5494*	0.1831	0.5843*	0.1579		
(0.0752)	*(3.4860)*	*(0.6073)*	*(2.2206)*	*(0.7632)*		
$\hat{T}_1$	$\hat{T}_2$	$\hat{T}_3$	$\hat{T}_4$			
1925:11	1928:9	1933:7	1937:2			
(1925:10-1926:1)	*(1928:8-1928:11)*	*(1933:2-1933:8)*	*(1937:1-1937:3)*			
R-squared	*Adj. R-squared*					
0.813	*0.800*					

* denotes significance at the 5% confidence level

First of all, we find evidence that no matter which specification is used, both the supF tests and the double maximum tests ($UD_{\max}$ and $WD_{\max}$) of no break allow rejection of the null hypothesis at the 5 percent conventional risk level. We therefore can already state that there is at least one break point in our yield spread series. Regarding the exact number of breaks and their location, the first specification, i.e. equation (2), chooses 3 breaks on the basis of the three criteria (BIC, LWZ, sequential procedure) while the two other specifications select 4 breaks. Indeed, the value of the $\sup F(4|3)$ test in specification 1 allows rejection of the presence of a fourth break; however, its value is not far from the critical one, which equals 9.41 at the 5 percent confidence level corresponding to a new break (at the exact location of the supplementary break obtained in models 2 and 3). The second and third specifications suggest four breaks, at the same locations. Moreover, the explanatory power of the chosen models increase if we compare the three different models in terms of both R squared and adjusted R squared values (with a maximum of around 0.8 for the last specification). Finally, the confidence intervals around the break dates narrow with the inclusion of different explaining variables. We thus choose to discuss the results of the third specification only[15].

Analysis

First break: November 1925 (confidence interval: October 1925 – January 1926), Positive news (reduction of the spread)

The first break falls in November 1925. The empirical results are in fact easy to see on Figure 2. In just a few months, the spread between the Romanian and the French yields dropped dramatically. Surprisingly, there seems to be no economic reason enabling to understand this dramatic decline. Indeed, from an economic perspective, the major event of 1925 was the monetary reform. Following the example of other European countries, the Romanian government tried stabilizing the monetary circulation and chose to revaluate the Romanian currency

[15] *We must however mention that the standard errors of the coefficient associated with the lagged difference in the third model is, for some of the five regimes, rather large, indicating that there might be little gain from including this variable in the model, at least for these particular regimes.*

through a deflation process. To this end, two monetary conventions between the Finance Ministry and the Romanian National Bank were signed in May 1925. The monetary conventions were meant to eventually make the financing of the public deficits by the Bank disappear. A liquidation fund for this debt was created and the functioning of the National Bank was restricted so as to increase its gold reserves and the general money coverage. However, the desired monetary consolidation was never reached: not only was the Government unable to supply the liquidation fund and hence reimburse its loans, but it also continued to contract new debts from the National Bank. The difference with the previous situation was purely technical: instead of issuing Treasury Bills, it contracted current account advances. Moreover, the monetary circulation was not even reduced by the amount of the liquidation fund: the National bank used these funds to sustain the Romanian currency exchange rate abroad. All in all, none of the stated objectives (the deflation and its corollary, the Romanian leu revaluation), were reached. On the contrary, the continuous price increase contributed to a depreciation of the leu, both internally and externally. The trade balance recorded high variations over time. This is typically the case for a country with an underdeveloped industry, which exports mainly high volume – low price raw materials and imports small volume – very expensive manufactured goods. More specifically, the external trade result was negative for 1925.

Since there is no convincing economic explanation, it seems natural to turn to alternative sources of positive news for holders of Romanian bonds. On the political side the only major change was Prince Carol's renouncement to the throne in December 1925. The Prince's relationship with a Jewish mistress, Helène Lupescu, had led to several scandals, one of them happening in Paris in early December 1925. Markets might have viewed positively the political removal of a heir with a tarnished reputation. Ion Bratianu, the Romanian prime minister at the time, would rejoice and go as far as to declare that the sensual prince was a menace to the country (Boisdron, 2007, p. 35). On the international side however, the period of the break coincides with one of the most important Treaty signed in the aftermath of the First World War: the Locarno Treaty.

One of the main goals of French diplomacy after the First World War was to guarantee France's future security. For France, Central and Eastern Europe could play a crucial role to reach this end. They believed that the likelihood of a new conflict with Germany would drastically diminish if France could count on Allies encircling Germany (Girault and Frank, 1988, p. 102). The main idea was to establish a series of alliances with countries that had benefited from the Versailles Treaty. It is therefore not surprising that, by the spring of 1921, the French diplomacy had concentrated its effort in Central and Eastern Europe by supporting the members of the little Entente (Czechoslovakia, Romania and Yugoslavia) and Poland (Sandu, 1995). Romania held a particular position as French troops under the leadership of General Berthelot had contributed to the restoration of the country in 1918. Then General Berthelot, viewed as a real hero in Romania, expected the country to be a long term and reliable ally (Girault and Frank, 1988, p. 58; Boureille, 2006).

The diplomatic relations between France and its Eastern Allies led to several concrete measures. On the financial side, France agreed to lend substantial amounts for its Allies military expenditures (60 million francs to Czechoslovakia, 400 million for Poland, see Clavert, 2004). The alliances were meanwhile confirmed in a series of conventions (Franco-Polish in February 1921, Romanian-Polish in March 1921, Franco-Czech in January 1924) and joint military discussions between France, Poland and Romania in April 1924 (Dessberg, 2006). Despite these achievements, Romania was still wary of France's attitude regarding Bessarabia. Bessarabia had been attributed to Romania following the Versailles Treaty. The Soviet Union wanted however a plebiscite to take place, hoping that the population would favour joining it. It was not until 1924 that France would recognize the Romanian rights on Bessarabia, insisting at the same time on the fact that in no way would France intervene in the event of a Russo-Romanian conflict regarding this territory (Dessberg, 2006).

The French recognition of the Soviet Union in October 1924 fuelled fears in Poland and Romania; both countries worried that France would let them down in case of a Russian invasion. Meanwhile, French diplomats were much more concerned with the discussions with Germany regarding

the latter's recognition of its Western borders (Dessberg, 2006). These discussions would lead to the signature of the Locarno Treaty. The Rhineland Pact in which Germany recognized its borders with Belgium and France and renounced to military action to modify these (Girault and Frank, 1988) played a central role in this Treaty. In parallel, France signed two additional Treaties with Poland and Czechoslovakia to reaffirm its commitment to support them in case of trouble.

Even though the Locarno Treaty was at first perceived as bad news by French Allies in Central in Eastern Europe, for French bondholders it was probably understood in a much more positive way. Eventually, it led to the signature of a Franco-Romanian Treaty in June 1926. The terms of the Treaty have since then been extensively analyzed. The vague terminology could indeed be interpreted as a French wish not to commit itself too firmly (Dessberg, 2006). It nonetheless led to firm protest both from Warsaw and Moscow.

Second break: September 1928 (confidence interval August – November 1928) Positive news (reduction of the spread)

By its geographical position and because of its long-standing disagreement with the Soviet Union regarding Bessarabia, Romania was quite logically considered as a country likely to face a war. In the spring of 1928, Romania appeared isolated at a time of tensions with the Soviet-Union (Boureille, 2006). France had recognized the Soviet Union in 1924 and since then had somehow shown a reduced interest in its Central and Eastern European Alliances. The Treaty of Locarno opened a period of relative appeasement and France started to focus more on the consequences of the Treaty for its common border with Germany than on its relationship with Romania. Indeed, even though a Treaty Romania was signed on June 1926, the French foreign Minister, Aristide Briand would soon minimize its scope (Dessberg, 2006).

In this context, the Romanian position was extremely fragile and all news indicating a reduction of the likelihood of a conflict in Eastern Europe could only be perceived as positive by bondholders. Such an event materialized at the end of August 1928. France had negotiated with the USA the signature of a bilateral pact which would mark the renouncement, of each party, to employ force as a political tool. Uneasy

with just a bilateral pact, Frank Kellogg, Aristide Briand's US counterpart, suggested broadening the scope of the Treaty by transforming a bilateral pact in a multilateral one. On August 28th, 1928 the representatives of fifteen countries signed the Briand-Kellogg pact which was meant to "outlaw war" (Girault and Frank, 1988, p. 151).

Romania's concerns were twofold. On the one hand it wished to avoid any potential soviet action in Bessarabia. On the other hand, the government was willing to put an end to the claims of border revisions supported by Hungary and indirectly sustained by Mussolini. Therefore, Romania conditioned its signature of the Briand-Kellogg pact upon the position of the little Entente members, as it would be expressed during their conference in Bucharest, in June 1928. Eventually, Romania signed the war renouncement pact on September 4th, 1928. The general appeasement may have been interpreted by the market as a very positive news reducing the likelihood of a war in which Romania would be involved.

National political events may also contribute to explaining this second break. One of such elements stands out: the end of 7 years of political rule by the Liberal Party (Boisdron, 2007, p. 26). Following the death of King Ferdinand on July 20th, 1927, who continuously supported Liberals' policies, and the death of Ionel Bratianu on November 27th, 1927, the Liberals' leader who insured the party's unity and designed its direction, the pressure from the National Peasant Party became more stringent: the Liberal government was accused of unconstitutional practices and public opinion was asked to manifest its dissatisfaction with Liberal authoritarian administration and sectarian economic policies. As a consequence, Vintilă Brătianu, who succeeded his brother as head of the Liberal party and Prime minister resigned in November 1928[16] (Sandu, 2008, p. 219). As expected, the elections of December 1928 were followed by a change of majority: the National Peasant Party won almost 78 percent of the vote compared to 6.5 percent for the Liberals. The public opinion was very enthusiastic, convinced that a totally new period had begun.

[16] *The "official" cause of this resignation was the failure to conclude the needed foreign loan for the stabilisation of the Romanian leu. However, the "real" causes were much more profound, namely Liberals' failure in winning the confidence of the peasantry, who represented the mass of the voters, and their failure to achieve the desired economic prosperity.*

At an international level, this government change can be interpreted as a positive sign. While the political Liberal doctrine was synthesised by the motto "by ourselves", which meant sharing as little power as possible with foreigners even in what concerns the question of financing their ambitious economic programme with native capital alone, the National Peasant party adopted a policy of "open doors" which consisted in encouraging foreign investments as the key of the economic development of the country. Their motivation came partly from the realization that native sources of capital were insufficient, but also from the desire to destroy the huge economic power accumulated by the Liberal financial and industrial oligarchy. For French bondholders the implications of the change in government were straightforward. The new government led by Iuliu Maniu asked indeed for a French technical support to implement financial reforms in Romania. In July 1928 already a mission led by Charles Rist had started working in Bucharest. The remarks made by the group of experts were quickly rendered public, leaving the impression that the French government would act diligently in favor of its bondholders. This in turn led, in the 1930s, to protests in the Romanian press accusing France of interference in its internal affairs (Boisdron, 207, p. 30). In a sense, this form of fiscal surveillance is close to the concept of supersanction developed by Mitchener and Weidenmier (2010).

Third break: July 1933 (confidence interval: February-August 1933), Negative news (increase in the spread).

Romania was deeply affected by the great depression of the 1930s. Its emerging economy was entirely dependent on raw material exports to honour its sovereign debt service. Its debt payment difficulties were mainly triggered by the dramatic fall in raw material prices, by sudden and significant interest rate changes and by protectionist measures introduced by creditor countries (Ureche-Rangau, 2008). The service of the Romanian debt became quickly unsustainable. The required amount was almost equal to the trade balance excess in 1930 and 1931. The Romanian public debt annuity could not be covered by the trade surplus after 1932, while the ratio debt service / exports significantly increased (from 18 percent in 1930 to almost 29 percent in 1932) as a consequence of the significant drop recorded by raw material prices (especially crude oil).

Negotiations opened in Paris, in December 1932, following a note addressed by the Romanian government to bondholders' associations stating that because of the length and gravity of the crisis, the success of financial and monetary reforms was conditional upon a rescheduling of the foreign debt service[17]. A first agreement reducing debt payments was concluded on February 18, 1933. It mainly stipulated that bond redemptions were suspended until end of March 1935 (potentially even March 1936) and concerned the unified consols 1929 and the government consolidation loan of 1922. Meanwhile, the service of the two Monopolies House loans remained under discussion. As soon as an agreement was signed, the Romanian government insisted on the fact that these debt service reductions were significantly below Romania's needs as they would neither allow the budget equilibrium nor the monetary transfers abroad. Hence, the Romanian government would keep the possibility to eventually initiate other rounds of renegotiations for a new debt relief if the total amount of public revenues over the first five months of 1933 would be lower than predicted or if the trade balance would not provide enough foreign currencies for the debt service. In view of the large strikes experienced in the country (Boisdron, 2007, pp. 61-62), expectations could not have been very high in this respect.

In this context, on August 15, 1933, the debtor stopped in a totally unexpected way all payments corresponding to the Monopolies House loans (i.e. stabilization and development loans)[18]. Different potential reasons might have motivated such an extreme decision: 1) force bondholders to ask for new renegotiations and be ready to accept larger debt service reductions fearing a complete stop of payments; 2) provide a signal about the necessity for Romania to benefit from new trade facilities in order to be able to transfer the debt service; 3) determine a new decrease in Romanian bond market prices hence facilitating market buy backs; 4) provide an answer to the different critiques concerning governmental policy, by making a decision that was supposed to be welcomed by public opinion[19]. Finally, an agreement with bondholders' associations was reached in December 1933 regarding the

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[17] *ANPFVM, 320-A-3.*

[18] *ANPFVM, "Note sur la décision du gouvernement roumain de suspendre le transfert du service de la dette extérieure à partir du 15 août 1933", le 17 août 1933.*

[19] *On the contrary, an important part of public opinion heavily criticized this measure being aware of the danger and lack of diplomacy of the Romanian government.*

debt service of the stabilization and development loans. These events represent the starting point of a whole set of debt rescheduling and renegotiation agreements that characterized the rest of the 1930s.

The third break point detected in our yield spread series is clearly the result of these events. Situated on July 1933, its confidence interval covers the time period between February and August 1933. From this point on, the spread enlarges gradually up to a second maximum of the series of almost 1500 bp on December 1935. The roots of this structural change are definitely economic, i.e. namely the great depression; however, political decisions are not totally out of the picture in this case, as the temporary debt moratoria decided in August 1933 was certainly also politically motivated. As soon as 1931 some of the kings' advisors had already suggested suspending coupon payment in protest to the French interference (Boisdron, 2007, p. 31).

Fourth break: February 1937 (confidence interval: January – March 1937), Good news (reduction of the spread with however an increase in its trend).

Negotiations between Romanian government and bondholders associations reopened in December 1936 as former debt agreements were to expire on 31 March 31, 1937. As a consequence, a new debt agreement was signed on March 1st, 1937. Even though two other agreements were signed in October 1933 and in July 1934, the one signed in March 1937 was of particular importance. Despite the existence of a debt relief introduced by the 1934 agreements, the Romanian government was once more forced, in August 1935, to stop the debt service payments. Negotiations were then engaged on a country to country basis. For France, an agreement was concluded on February 6, 1936. It mainly concerned trade arrangements, and the debt service resumed in June 1936. The signature of the 1937 debt service agreement could be interpreted as a signal of the good faith from the Romanian government. Indeed, its terms are very close to the 1934 agreement and renege on the extreme position expressed between 1931 and 1934. At the time a series of laws were passed which distinguished agricultural and "urban" debts. This distinction was clearly meant to introduce the idea that debts can be paid by someone else than the debtor himself. This desire to unload the

debt on another debtor was at the time accompanied by drastic debt reductions[20]. For bondholders, the suspension of laws which revoked most of creditors' right could only be perceived as positive.

Even though the overall spread experienced a clear reduction following the break, the spread's trend increased at the same time. Several explanations may be suggested to explain this change. First, Romania was dealing with a recurrent political instability, which would lead to no less than nine different governments between 1937 and 1940. It is likely that bondholders were following the internal political situation with interest. They may or may not have expected Carol II's short-lived dictatorship (in 1938) or the rise to power of the far right but were certainly aware of the ascent of the latter. Second, after the French recognition of the Soviet Union, Romania's international position was further altered by the dissensions within the Little Entente. By the end of 1936, major tensions between Czechoslovakia are made public (Boisdron, 2007, pp. 146-147). From then on, Romania became more and more isolated, rendering it an easier prey for its enemy. Eventually, bondholders may have expected either a war outbreak in which Romania would have been defeated or in which Romania would side with France's enemies.

4. Conclusion

Sovereign debts are complex financial instruments. Their valuation is, and as for any other debt, influenced by economic fundamentals. However, the specific nature of its issuer, i.e. a sovereign state, forces taking into consideration political decisions when evaluating the market prices of these debts. This paper assesses the relative importance of political and diplomatic news on sovereign bond pricing. The analysis relies on the estimation of structural breaks in the spread between French and Romanian bonds during the interwar period. Interwar Romania is indeed a perfect example of a country facing international military intervention for which diplomacy and politics play a crucial role.

[20] *Agricultural debts were reduced by half and rescheduled, their interest rates were dramatically decreased, while "urban" debts – real estate loans – were reduced by 20 percent, rescheduled and their interest rates reduced too.*

The results highlight four major breaks. Two of them are clearly linked to economic news. More precisely, bond prices react, quite logically, to (re)negotiations regarding the sovereign debt service and reimbursement. The other breaks are however attributed to international diplomatic achievements which rendered interwar Romania less likely to suffer from a hostile aggression. Both events are in fact Treaties which brought about a relative appeasement in international relations: the Locarno Treaty and the Briand-Kellogg pact. This result shows that beside pure economic elements market definitively price war risk and diplomatic successes.

References

Bai, J., Perron, P. *Estimating and Testing Linear Models with Multiple Structural Changes*, Econometrica, 66, pp. 47-78, 1998.

Computation and Analysis of Multiple Structural Change Models, Journal of Applied Econometrics, 18, pp. 1-22, 2003a.

Critical Values for Multiple Structural Change Tests, Econometrics Journal, 6, pp. 72-78, 2003b.

Bernal, O., Oosterlinck , K., Szafarz, A. *Observing bailout expectations during a total eclipse of the sun*, Journal of International Money and Finance, 29, 7, pp. 1193-1205, 2010.

Blancheton, B. *Les faux bilans de la Banque de France dans les années 1920*, in L'entreprise, le chiffre et le droit, J.G. Degos and S. Trébucq ed., Bordeaux, pp. 73-89, 2005.

Boisdron, M. *La Roumanie des années trente. De l'avènement de Carol II au démembrement du royaume (1930-1940),* Editions Anovi, Parçay-sur-Vienne, p. 221, 2007.

Borchard, E. M. *State insolvency and foreign bondholders*, New Haven, Yale University Press, 1951.

Boureille, P. *Les relations navales franco-roumaines (1919-1928) : les illusions perdues*, Revue Historique des Armées, 244, pp. 50-59, 2006.

Brown, W. O., Burdekin, R. C. K. *Turning Points in the U. S. Civil War: a British perspective,* Journal of Economic History, 60, pp. 216-231, 2000.

German debt traded in London during World War II: a British perspective on Hitler, Economica, 69, pp. 655-669, 2002.

Bulow, J., Rogoff, K. *Sovereign debt: is to forgive to forget*, American Economic Review, 79, 1, pp. 43-50, 1989.

Clavert, F. *La France, la petite Entente et la Pologne: relations économiques et financières de la signature du traité de Versailles à la crise*, Valahian Journal of Historical Studies 2, pp. 31-46, 2004.

Dessberg, F. *La Roumanie et la Pologne dans la politique soviétique de la France: la difficulté d'établir un « front uni »*, Revue Historique des Armées, 244, pp. 60-72, 2006.

Eaton, J., Gersovitz, M. *Debt with potential repudiation: Theoretical and empirical analysis,* Review of Economic Studies, 48, 2, pp. 289-309, 1981.

Eichengreen, B., Portes, R. *After the deluge: Default, negotiation, and the readjustment during the interwar years*, The international debt crises in historical perspective, B. Eichengreen and P. Lindert ed. Cambridge, MIT Press, pp. 12-47, 1989.

Esteves, R. P. *Quis custodiet quem? Sovereign Debt and Bondholders' Protection Before 1914* Economics Series Working Papers 323, University of Oxford, Department of Economics, 2007.

Flandreau, M., Oosterlinck, K. *Was the Emergence of the International Gold Standard Expected? Melodramatic Evidence from Indian Government Securities*, IHEID Working Papers 01-2011, Economics Section, The Graduate Institute of International Studies, 2011.

Frey, B., Kucher M. *History as reflected in capital markets: the case of World War II*, Journal of Economic History, 60, 2, pp. 468-496, 2000.

Frey, B., Waldenström, D. *Markets work in war: World War II reflected in Zurich and Stockholm bond markets*, Financial History Review, 11, 1, pp. 51-67, 2004.

Using Financial Markets to Analyze History: The Case of the Second World War, *Historical Social Research* 32(4), pp. 330-350, 2007.

Fishlow, A. *Lessons from the past: capital markets during the 19th century and the interwar period*, International Organizations, 39, 3, pp. 383-439, 1985.

Girault, R., Frank , R. *Turbulente Europe et nouveaux mondes. Histoire des relations internationales contemporaines, tome 2 : 1914-1941*, Paris, Masson, p. 279, 1988.

Landon-Lane, J., Oosterlinck, K. *Hope springs eternal: French bondholders and the Soviet Repudiation (1915-1919)*, Review of Finance, 10, 4, pp. 507-535, 2006.

Mitchener, K., Weidenmier, M. *Empire, Public Goods, and the Roosevelt Corollary*, Journal of Economic History, 66, pp. 658-692, 2005.

Supersanctions and Sovereign Debt Repayment, Journal of International Money and Finance, 29, pp. 19-36, 2010.

Mouré, K. *The Gold Standard Illusion: France, The Bank Of France, And The International Gold Standard 1914-1939*, Oxford University Press, New York, p. 297, 2002.

Oosterlinck, K., Ureche-Rangau, L. *Entre la peste et le cholera: le détenteur d'obligations peut préférer la répudiation au défaut*, Revue d'Economie Financière, 79, pp. 309-331, 2005.

Oosterlinck, K., Ureche-Rangau, L. *Multiple Potential Payers and Sovereign Bond Prices*, Revue Finance, 29, 1, pp. 31-52, 2008.

Pecquet, G. M., Thies, C. F. *Texas Treasury Notes and the Mexican-American War: Market Responses to Diplomatic and Battlefield Events*, Eastern Economic Journal, 36, pp. 88-106, 2010.

Rose, A. K. *One reason countries pay their debts: renegotiation and international trade*, Journal of Development Economics, 77(1), pp. 189-206, 2005.

Sandu, T. *La présence française en Europe centrale dans l'entre-deux-guerres*, Revue d'Europe Centrale, III, 2, pp. 147-160, 1995.

Histoire de la Roumanie, Ed Perrin, p. 435, 2008.

Tomz, M. *Reputation and international cooperation: Sovereign debt across three centuries*, Princeton, NJ: Princeton University Press, 2007.

Ureche-Rangau, L. *Dette souveraine en crise: l'expérience des emprunts roumains à la Bourse de Paris durant l'Entre-deux-guerres*, Publications de la Sorbonne, Collection Sorbonensia Oeconomica, 2008.

Weidenmier, M. *Turning points in the U.S. Civil War: Views from the Grayback market,* Southern Economic Journal, 68, 4, pp. 875-890, 2002.

Willard, K., Guinnane, T., Rosen, H. *Turning points in the Civil War: views from the Greenback market*, American Economic Review, 86, 4, pp. 1001-1018, 1996.

Zussman, A., Zussman, N., Nielsen, M. O. *Asset market perspectives on the Israeli-Palestinian conflict*, Economica, 75, pp. 84-115, 2008.

HOW YUGOSLAV HYPERINFLATION WAS CURBED IN 1994

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Abstract

Hyperinflation in Yugoslavia from 1992 until 24 January 1994 was among the highest in the world and produced devastating effects on the monetary and economic systems, with numerous and long-lasting consequences.

Through implementation of the **Programme of Monetary Reconstruction and Economic Recovery of Yugoslavia** since 24 January 1994, under the direction of Dragoslav Avramović, Governor of the National Bank of Yugoslavia (NBY), hyperinflation was completely eliminated in 1994 and between February and December 1994 **the inflation rate was reduced to zero**. This was accomplished with minimum available resources (minimum NBY foreign exchange reserves), in a short time and under conditions of severe international sanctions, financial and trade embargo against FR Yugoslavia (FRY).

Although economists are not unanimous about the root causes of hyperinflation in FR Yugoslavia, the following may be designated as its main sources:

- Deficit financing of the budget, i.e. monetisation of fiscal deficit;
- Very severe economic and financial sanctions imposed on Yugoslavia by the international community between 1992 and 1996;
- Political conflicts, war and secession of former Yugoslav republics;
- Enormous real appreciation of the dinar in 1990 and 1991 totalling 278.3 percent resulted in drastic reduction of foreign exchange reserves (USD 2.9 billion in Q4 1990 and USD 3.44 billion in 1991), followed by massive disturbances on the Yugoslav foreign exchange market, burgeoning black currency market and establishment of unofficial exchange rate. This has triggered galloping inflation;
- According to NBY Annual Report 1991, inflation was considerably boosted by belated reaction to interruption of payment operations with breakaway republics Slovenia and Croatia in 1991 and unlawful use of dinar funds that were entirely beyond control of other republics and NBY;
- In the conditions of hyperinflation, interrupted influx of foreign capital, blocked Yugoslav capital abroad and other financial sanctions and embargo, the banking and financial systems were faced with increasing erosion of capital;

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- Banks were losing credit potential and this had direct impact on slackening industrial production and economic activity in all other sectors.

All the mentioned factors led to enduring adverse consequences, to economic and financial exhaustion of FR Yugoslavia and social tensions. The single Yugoslav market and single Yugoslav monetary and foreign exchange systems have also been disrupted since 1991.

Real GDP, employment, real wages, pensions and living standard fell, foreign trade decreased, particularly after the abolishment of the clearing manner of payment; economic activity plummeted in all economic sectors. Agrarian self-sufficiency was the one of the factors that helped maintain the social situation in the country.

The dinar remained legal tender despite hyperinflation and high money substitution, until 24 January 1994, when hyperinflation was curbed and the so-called "Avramović's" new dinar was introduced. Issuing of own money under very difficult conditions prevailing at the time certainly contributed to mitigating and overcoming of the crisis.

The following **main measures** have been adopted and implemented since 24 January 1994 within the **Programme of Monetary Reconstruction and Economic Recovery of Yugoslavia**:

- The new dinar was introduced as a single legal tender in the country, while the old dinar remained concurrently in circulation until 22 July 1994;
- Internal convertibility between the new dinar and foreign convertible means of payment was introduced;
- The new dinar was pegged to Deutchmark at a rate of 1 new dinar = 1 Deutchmark;
- Money issuing was capped up to the level of available convertible foreign exchange assets;
- Foreign exchange reserves have been strengthened through purchases of foreign exchange assets on the basis of NBY's primary issue via commercial banks and issuing of short-term securities;
- The policy of real positive interest rates of NBY was adopted;
- Government budget deficit was planned to be cut;
- Financial and fiscal discipline have been tightened and other monetary and economic policy measures have been undertaken, etc.

Measures undertaken under the Monetary Reconstruction Programme proved to be a highly efficient economic and social project, since inflation was reduced to zero between February and end of 1994.

Keywords: Curbed Hyperinflation, Yugoslavia, Economic Embargo, Monetary Reconstruction Programme, Real Appreciation, Fiscal Deficit, Foreign Exchange Reserves, Zero Inflation

JEL Classification: E31, E52, E58, E6, H6, N1

1. Experiences of Hyperinflation in Other Countries

There is a rich history of hyperinflation worldwide. Hyperinflation in at least 32 countries is recognised in literature: Germany 1922-1923, Austria 1921-1923, France during the 1789 Revolution, Zimbabwe 2006-2008, Hungary 1945-1946, FR Yugoslavia 1992-1993, Greece 1942-1944, Belarus 1994-2002, Japan 1951, Poland 1989-1991, China 1947-1949, Taiwan 1948-1949, Turkey 1995, Russia 1992-1993, Ukraine 1992-1996, Romania 1998-2003, Bulgaria 1996, Bosnia and Herzegovina 1992-1993, Georgia 1993-1995, United States of America – during the Civil War, January 1861 – April 1865, Israel 1984, Zaire 1989-1996, Brazil 1986-1994, Peru 1984-1990, Chile 1971-1973, Argentina 1975-1991, Bolivia 1984-1986, Nicaragua 1991, Angola 1991-1995, Mexico 1992-1993, Mozambique 2004 and Madagascar 2004. As a result of hyperinflation, for example, the face value of the biggest banknote printed in Zimbabwe in 2008, even after significant prior denomination, was 1.0E+14 (one hundred billion Zimbabwean dollars).

Otherwise, hyperinflation existed even in antiquity, for example in ancient Rome, as well as in the Middle Ages, to the present day. Therefore, episodes of hyperinflation occurred in different countries and their number is much higher than 32 mentioned in recent times.

2. Inflation Trends in FR Yugoslavia 1990-1995

Wherever it occurred, including FR Yugoslavia, hyperinflation has demonstrated its devastating effect on economic and social systems, with numerous and long-lasting consequences. World history indicates that hyperinflation most often occurs at the time of or immediately after world, civil and other wars, revolutions and social upheavals.

Based on the experience of over 30 countries, it may be concluded that consequences of hyperinflation are tragic and painful for the economy and population and for the functioning of a state. These effects are, as a rule, felt for protracted periods after hyperinflation has been curbed, as the confidence of the population and economic transactors, including domestic and foreign investors, can hardly be regained in a short time.

When inflation breaks out of control, it turns into hyperinflation or mega inflation, as happened in FR Yugoslavia from 1992 until the end of 1993, or more precisely until 24 January 1994. FR Yugoslavia experienced three-digit annualised inflation in 1990 and 1991, but it had not turned into hyperinflation yet. Inflation rate measured by current retail price growth (December to December) equalled 125 percent in 1990 and 235.8 percent in 1991.

Imposition of economic, trade and financial blockade of FR Yugoslavia, in addition to the consequences of civil war, started hyperinflationary spiral, resulting in five-digit rate of hyperinflation in 1992 amounting to 19 798 percent, while in 1993 the total rate of hyperinflation reached enormous proportions of 3.5E+14. According to our calculation based on official statistical data, hyperinflation in FR Yugoslavia in the entire 1993 averaged 1011 percent on a monthly level, while weekly inflation rate was 74.3 percent. In the first 23 days of January 1994 hyperinflation reached 3.14E+8.

On the basis of the **Programme of Monetary Reconstruction**, carried out **under the direction of NBY Governor Dragoslav Avramović,** hyperinflation was fully overcome and in the period from end February until December 1994 equalled 0 percent measured by retail prices.

After the implementation of the Monetary Reconstruction Programme in 1994, Governor Avramović said that ***by overcoming hyperinflation in January 1994 we saved the economy from collapse.***

Inflation started to pick up again in 1995 reaching about 120 percent, as a result of very severe international sanctions and war-related circumstances that lasted until the signing of the Dayton Agreement (in Dayton, Ohio, USA, on 21 November 1995 and in Paris, on 14 December 1995).

Table 1

Inflation rates in FR Yugoslavia (1990-2005)

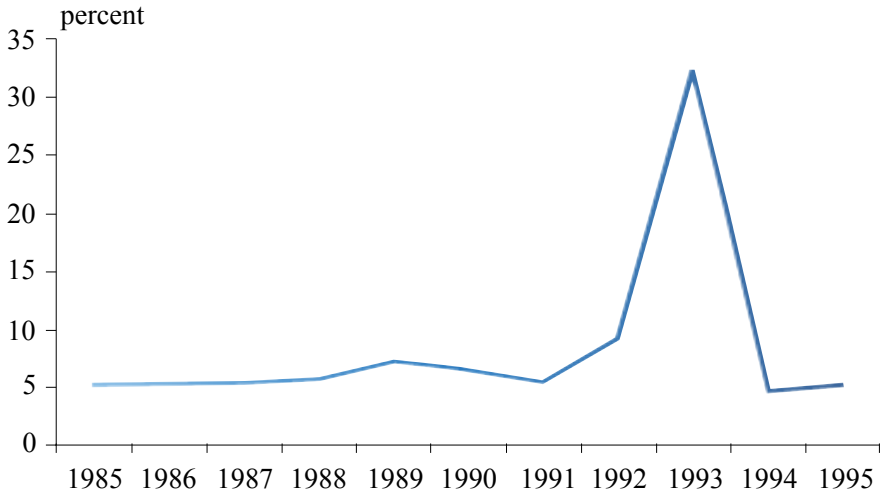
	Inflation rates Dec./Dec., %
1990	125.0
1991	235.8
1992	19,798.0
1993	3.52E+14
01-24 Jan. 1994	3.14E+8
Feb.-Dec. 1994	0.0
1995	120.2

Source: Official statistical data, FSO, Belgrade

Figure 1

Inflation rate

(year average, natural logarithm - ln)

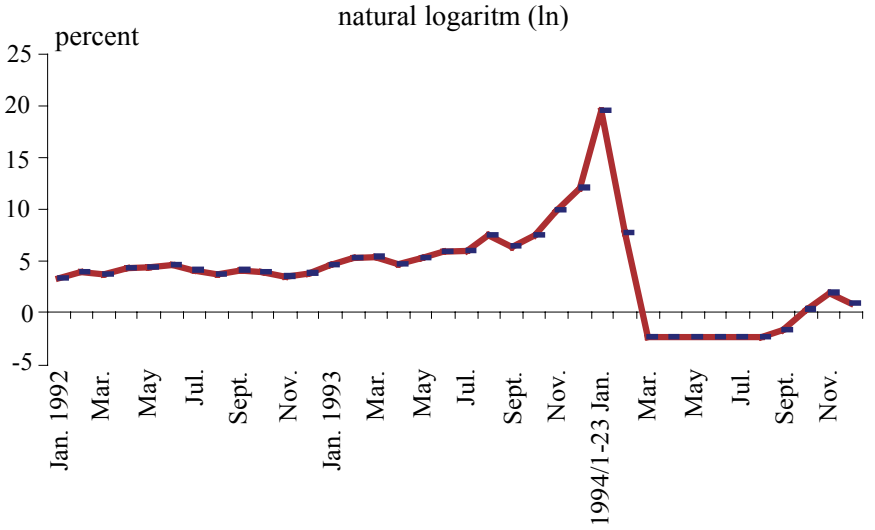


Source: Official statistical data, FSO, Belgrade

Given enormous monthly price increases during 1993 and in January 1994, it is hard to present such growth on the chart in absolute values and/or growth rates. Consequently, the following chart presents retail price increase and hyperinflation in FR Yugoslavia through **natural logarithms** for each year in the period 1992-1994.

Figure 2

Monthly retail price rates in FR Yugoslavia (1992-1994)



Source: data of the FRY Federal Statistical Office – Index and Statistical Reports on Retail Prices, FSO, various issues

Observed on a month-to-month basis, one may say that hyperinflation in FR Yugoslavia started in February 1992, when it first exceeded 50 percent in a single month. Hyperinflation exceeded the 100 percent per month threshold for the first time in June 1992, but was somewhat curbed subsequently owing to price freeze in the latter half of 1992. That price freeze was ineffective, as it was not accompanied by all necessary monetary and macroeconomic policy measures and inflation continued to rise, given the ban on export and import and deteriorating supply of goods and services on the domestic market.

In January 1993 the inflation rate was already 100.6 percent and then significantly accelerated until July 1993, when it reached 413.6 percent.

After that, the pace of inflation additionally increased, reaching the record-high level for 1993 in December. According to official statistics, in December 1993 the rate of hyperinflation, measured by retail price growth, averaged 443 percent per week. In the first three weeks of January 1994 inflation doubled every 16 hours, which became intolerable.

After that, owing to the implementation of a set of measures within the **Monetary Reconstruction Programme**, hyperinflation in FR Yugoslavia was reduced to zero, making this an extremely successful economic project in our country.

Table 2

Monthly retail price growth in FR Yugoslavia (1992-1994)
(growth rates in %, previous month=100)

1991	December	18.2	1993	January	100.6	1994	01-23 January	3.14E+8
1992	January	29.1		February	211.8		February	2,143.3
	February	50.7		March	225.8		March	-6.7
	March	41.9		April	114.1		April	-0.4
	April	77.5		May	205.2		May	-0.3
	May	80.8		June	366.7		June	-1.4
	June	102.3		July	431.6		July	-1.3
	July	62.0		August	1,880.6		August	-0.5
	August	42.4		September	643.2		September	0.2
	September	64.4		October	1,895.6		October	1.4
	October	49.8		November	2.02E+4		November	7.0
	November	33.3		December	1.78E+5		December	2.5
	December	46.6						

Source: data of the FRY Federal Statistical Office – Index and Statistical Reports on Retail Prices, FSO, various issues

3. Causes of Hyperinflation in Fr Yugoslavia 1993-1994

Hyperinflation is mainly defined as a very high price increase that exceeds 50 percent per month, although there are economic theoreticians who define this threshold as price increase over 20 percent (or over 30 percent) per month. On the other hand, one-digit inflation

(2-4 percent) is defined in economic theory and practice as moderate and such moderate inflation is considered as being able to "oil the wheels of economy". Between one-digit inflation and hyperinflation exists the status of increased and galloping inflation.

One may say that the main causes of hyperinflation in FR Yugoslavia from 1992 until 24 January 1994 are: deficit financing of the budget and monetisation of fiscal deficit, in the condition of very harsh economic and financial sanctions and war conflicts. Political disagreements were followed by secession of republics and civil war. The government discontinued clearing manner of payment, which was followed by increase in current transactions deficit despite the fact that clearing market was the most significant market of former Yugoslavia. Slovenia broke away first and Croatia followed and the single Yugoslav market disintegrated.

In 1990 and in 1991 enormous real appreciation of the dinar was carried out by a total of 278.3 percent – by 118.3 percent in 1990 and by 73.3 percent in 1991. That appreciation was conducive for Yugoslav republics which were preparing for secession. Due to such enormous appreciation of the national currency, foreign exchange reserves have greatly decreased: by USD 2.9 billion in Q4 1990 and by USD 3.44 billion in 1991(prime minister was Ante Markovic). After that huge drop, at the end of 1991 foreign exchange reserves held by the NBY equalled USD 2.76 billion, while total foreign exchange reserves stood at USD 3.64 billion.

This was followed by disturbances on the foreign exchange market, strengthening of black currency market and establishment of unofficial exchange rate for the dinar, significantly above the official exchange rate. Exchange rate for the dinar has been fixed on three occasions: first at 7 dinars for 1 Deutchmark (DM), then at 9 dinars for 1 DM and finally at 13 dinars for 1 DM. This has created conditions for ever higher general price level, which then turned into galloping, even before the country disintegrated. These trends were also accompanied by flight of capital abroad.

Additional aggravating factor from the point of price and output trends resulted from very severe embargo imposed by the international

community in May 1992 on all Yugoslavia's international transactions. The embargo included financial transactions as well. NBY's foreign exchange funds and funds of domestic banks in accounts abroad have been blocked.

This has led to huge drop in total gross domestic output, in fact to profound economic depression. Real fiscal revenues declined and fiscal deficit increased. That deficit did not have sources for real coverage. Increasing monetisation of fiscal deficit and budget expenditures fuelled first galloping inflation and then hyperinflation.

Inflation was also significantly driven by belated Government decision to stop payment transactions with breakaway republics, Slovenia and Croatia, which launched their own currencies in 1991. According to the Annual Report of the National Bank of Yugoslavia for 1991, dinar cash was transferred from seceded republics, outside legal channels, to other republics, and the NBY therefore lost control over dinar cash and issued dinar primary money, its transfers and changes in monetary aggregates. This, besides other factors, caused a major additional inflationary blow. NBY has estimated that about 30 billion dinars in cash were introduced in this manner outside legal channels (Annual Report NBY 1991, page no 30). Thus cash in circulation in Yugoslavia increased from 23.1 billion dinars at the end of 1990 to as much as 88.8 billion dinars at the end of 1991. Even greater increase was recorded for deposit money, as it increased from 19.9 billion dinars at the end of 1990 to as much as 170.8 billion dinars at the end of 1991. Total money supply, M1, thus rose from 43.0 billion dinars at the end of 1990 to 259.6 billion dinars at the end of 1991. All these data are quoted according to the NBY Annual Report for 1991.

The exchange rate of the dinar since 1990 until the curbing of inflation in 1994 was continuously weakening. Several official devaluations and denominations have been carried out, while the gap between the official and black market exchange rate kept widening. A price freeze attempt failed due to increasingly poor supply of goods on the domestic market, drastic foreign embargo in international trade and insufficient foreign exchange reserves of the NBY for interventions on the foreign exchange market, in absence of other necessary macroeconomic policy measures.

Exchange rate devaluation in the conditions of high currency substitution in turn further fuelled inflation and that spiral inevitably led to hyperinflation.

All these events resulted in extreme economic and financial exhaustion of the FR Yugoslavia's economy. Agrarian self-sufficiency was the only factor that helped maintain social situation in the country. Monetary policy remained generally alone, without the support of other economic policies, and extreme rise in inflation was inevitable.

The banking and financial systems, under the conditions of financial sanctions, embargo and hyperinflation, experienced increasing erosion of capital, while banks kept losing credit potential, which directly affected weakening production in industry and other economic activities.

Two financial organizations (saving banks) had pyramidal character and collapsed in the first half of 1993, as inflation was gaining its momentum. An attempt to reduce NBY interest rates in 1993 to boost production had limited effect due to growing inflation and hyperinflation. Despite that, dinar remained the legal tender in the conditions of high money substitution, until 24 January 1994, when the so-called "Avramović's" new dinar was introduced.

4. Consequences of Hyperinflation in FR Yugoslavia 1993-1994

Hyperinflation in FR Yugoslavia is not the biggest in the world, but it lasted long (two years, from February 1992 to 24 January 1994). As already mentioned, hyperinflation in the observed period had very adverse effect on economy, population and financing of public and social needs.

In short, consequences of hyperinflation were numerous until it was completely conquered. We will mention here those that most heavily affected domestic economy and population, whereby these consequences and not necessarily listed according to their relative severity:

- Significant drop in real gross domestic product and national income, fall in employment and labour productivity, declining real investment and population's real living standard;

- The value of the national currency was eroding rapidly – the dinar underwent devaluation and denomination. In that course, all known functions of money, such as a measure of value, a medium of exchange, a store of value and money as the world money have been either lost or reduced to minimum;
- Domestic banking and financial systems (banks, insurance companies and all other financial organisations) have drastically eroded;
- Fiscal deficit was continuously increasing, with ever higher monetisation of that deficit through issue of money without real backing, hence fiscal sustainability was reduced to minimum;
- Due to the low GDP level, relative ratio of foreign debt to GDP was unfavourable (over 100 percent of GDP), while foreign exchange reserves were minimal, with substantial outstanding liabilities to holders of foreign-currency savings deposits;
- As a result of pervasive indexation, all nominal categories (nominal GDP, wages, salaries, pensions, etc.) became rapidly devalued;
- Due to this, in the conditions of hyperinflation, economic system and macroeconomic policy functioned poorly, and macroeconomic instability and uncertainty grew rapidly, while economic growth was arrested, followed by economic decline;
- Socio-political system was destabilised, while the country's international position weakened;
- Competitiveness on international markets was lost or drastically reduced, with enormous drop in exports and imports as a consequence of very severe international sanctions and isolation; the country thus lost its traditional export markets, where goods and services from other countries substituted Yugoslav products;
- Hyperinflation thus became huge inflationary tax on the population and all domestic transactors;
- Currency substitution increased drastically, particularly substitution of the Deutschmark and Swiss franc for the dinar, with burgeoning informal market of foreign currency, goods and services, accompanied by various forms of money laundering;

- Under hyperinflation, relative price relations became markedly distorted, causing substantial consequences later for the implementation of the Government's plan on price disparities adjustment;
- Savings and new investments have been discouraged, domestic and foreign investors lost confidence and became reserved or withdrew from the domestic market; At the same time, propensity to consumption increased rapidly, while propensity to save was reduced; households withdrew their savings deposits, thus additionally hampering the functioning of the banking and financial systems in FRY;
- In many companies production was reduced to technological minimum or was suspended, so that chains within and between clusters broke up or weakened;
- Total losses in the economy increased significantly as a result of insufficient operating income and continuous increase in production costs and solvency and liquidity of business became drastically distorted;
- At the time of hyperinflation market functions, of both free and regulated markets, have been disturbed, while all fixed incomes in dinars became drastically devalued; Indexation became pervasive, while the purchasing power of all transactors on the domestic market was eroded;
- Unemployment was increasing and quasi-employment was maintained, accompanied by fall of real wages to very low level;
- High anxiety was present on the markets of goods and services, while legal money markets and stock exchange were withering away, nominal interest rates of the NBS and commercial banks rose enormously, etc.

All the mentioned and other negative side effects of hyperinflation required radical monetary and economic reform to overcome hyperinflation and restore stability to economic, financial and social systems in FR Yugoslavia.

To this end, the **Monetary Reconstruction Programme** has been prepared and implemented on 24 January 1994, introducing new dinar, while the old dinar was concurrently in operation for six months, until July 1994.

Due to the effect of very severe economic and other sanctions and other mentioned factors, FR Yugoslavia experienced **sharp drop in real gross domestic product** immediately prior to the outbreak of and during hyperinflation. That drop in real gross domestic product started in 1990, when secession of former SFRY republics intensified, and ended in 1994, when hyperinflation was drastically eradicated and reduced to zero, under the direction of Governor Avramović. The biggest drop in real gross domestic product in FR Yugoslavia, according to official statistics, was recorded at the time of hyperinflation 1992-1993 and equalled 27.9 percent in 1992 and as much as 30.8 percent in 1993.

Table 3

Real gross domestic product growth rates in FR Yugoslavia 1985-1997

percent

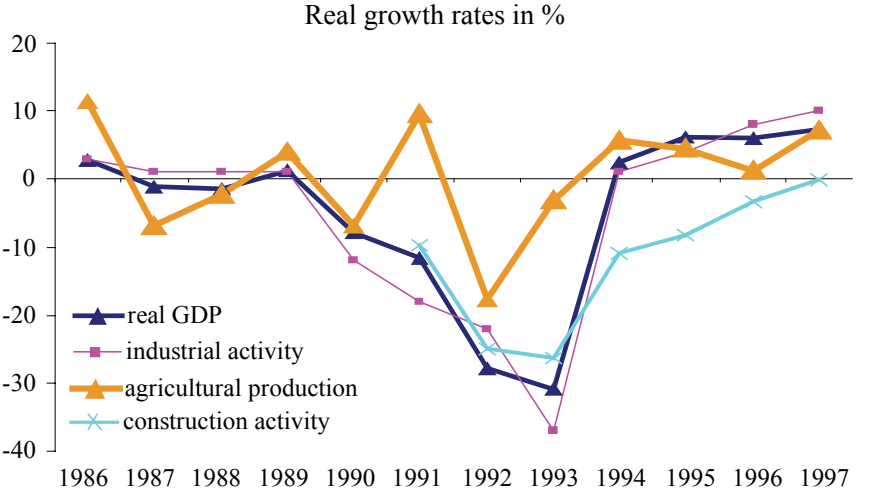
	Real GDP	Industrial production	Agricultural production	Construction value added
1986	2.7	3	11.3	-3.8
1987	-1.2	1	-6.9	-3.7
1988	-1.5	1	-2.3	-8.1
1989	1.3	1	4.0	-13.2
1990	-7.9	-12	-6.9	-6.4
1991	-11.6	-18	9.5	-9.8
1992	-27.9	-22	-17.7	-25.0
1993	-30.8	-37	-3.2	-26.3
1994	2.5	1	5.7	-11.0
1995	6.1	4	4.5	-8.2
1996	5.9	8	1.3	-3.4
1997	7.4	10	7.2	-0.1

Source: Statistical Yearbook of Yugoslavia 1996 and 2001, FRY Federal Statistical Office

After hyperinflation was eradicated, between 1994 and 1997 gross domestic product started to increase in real terms, but it could not in a short time offset its drastic drop that occurred in the preceding four years (1990-1993).

Figure 3

Real gross domestic product growth in FR Yugoslavia (1985-1997)



Source: Statistical Yearbook of Yugoslavia 1996 and 2001, FRY Federal Statistical Office

According to the analysis we conducted, at the time of hyperinflation in FR Yugoslavia, the European Union experienced a minor recession. Thus, industrial output, as one of the reference indicators of economic cycles, in Q4 1993 fell in the EU by over 4 percent. In addition, in 1993 employment declined in the EU, France and Germany by 1-1.5 percent relative to the previous year. Gross domestic product fell in Germany throughout 1993 by 0.8 percent in real terms. However, it is worth noting that these recession trends in the EU have not caused the drop in economic activity in FR Yugoslavia, particularly since strict economic – trade and financial – embargo had already been implemented against FRY, compounded with effect of other factors described above. Neither have world oil prices been the cause of drop in domestic economic activity, as they were relatively stable in the observed period.

Industrial activity in FRY fell sharply. The drop in the physical volume of output in manufacturing at the time of hyperinflation was 22.0 percent in 1992, and as much as 37.0 percent in 1993, when hyperinflation peaked.

After hyperinflation was brought down to zero level, manufacturing activity in FRY started to gradually revive, but its recovery took much longer time.

Trends in **agricultural production** were somewhat less adverse than in manufacturing. From the beginning of 1990 until the end of 1993 agricultural output declined by 18.6 percent. Growth in agricultural production was recorded in 1991 (by 9.5 percent) and in 1994 (by 5.7 percent), and continued in the period 1995-1997.

From the beginning of 1991 until 1993, **construction activity** declined significantly. This is confirmed by real GDP in construction activity in FR Yugoslavia, as well as by the trend in the number of finished apartments. According to official statistics, real GDP in construction activity dropped by 25 percent in 1992 and by 26.3 percent in 1993.

The number of finished apartments in FRY fell the most from 1991 until the end of 1993: by 32.2 percent in 1991, by 17.2 percent in 1992 and by 22.9 percent in 1993. For the sake of comparison, 51,045 apartments were completed in Yugoslavia in 1989, as opposed to only 19,405 in 1993.

Total employment in FRY from the beginning of 1990 until the end of 1993 was continuously declining. That drop was 18 percent for the four years, with the sharpest in 1991 (7.7 percent), then in 1992 (4.5 percent) and in 1993 (3.7 percent). Employment decline continued in the following period, from 1994 to 1996, given deteriorating operating conditions in the economy as a whole and foreign economic sanctions. There were 2.7 million employed persons in 1989, and 2.2 million or 489 thousand less in 1993.

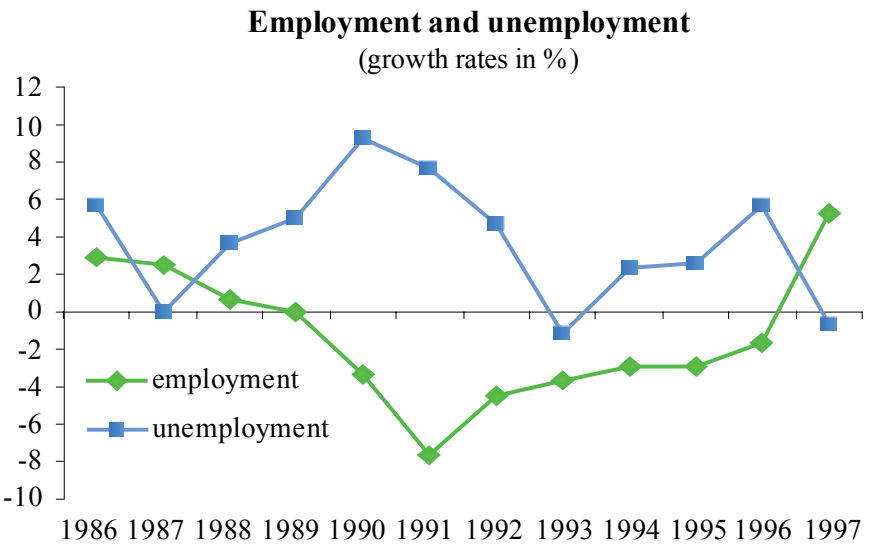
Table 4

Employment and unemployment in FR Yugoslavia

	Employment growth rates, %	Unemployment growth rates, %
1986	2.9	5.7
1987	2.5	0.0
1988	0.7	3.6
1989	0.0	5.0
1990	-3.4	9.2
1991	-7.7	7.6
1992	-4.5	4.7
1993	-3.7	-1.2
1994	-2.9	2.4
1995	-2.9	2.6
1996	-1.7	5.7
1997	5.3	-0.6

Source: Statistical Yearbook of Yugoslavia 1996 and 2001, FRY FSO

Figure 4



Source: data of the FSO, Statistical Yearbook of Yugoslavia 1996 and 2001

Total unemployment in FRY was 714.2 thousand persons in 1989, and 756 thousand persons in 1994.

Similarly to overall economic activity, in the conditions of hyperinflation FR Yugoslavia experienced a huge **drop in employees' real wages**. According to official statistics, real net wages fell by 86.1 percent from the beginning of 1990 till the end of 1993. Drop in real wages was particularly sharp in 1992 and 1993. Real wages markedly increased only after the introduction of the **Monetary Reconstruction Programme** in 1994, as well as in 1995.

Table 5

Real net wage growth rates in FR Yugoslavia (1986-1995)

	Real net wages growth rates in %
1986	9.0
1987	-9.0
1988	-7.0
1989	31.0
1990	-22.0
1991	-5.0
1992	-49.0
1993	-63.1
1994	314.0
1995	14.0

Source: data of the FSO, Statistical Yearbook of Yugoslavia, 1996 and 2001 (deflated by costs-of-living growth)

At the launch of the Programme, average net monthly wage, according to official statistics, was mere 63.9 dinars (February 1994), rising to 182.8 dinars in July and to 283.1 dinars (DM 283.1 at the official exchange rate of the Deutschmark) in December 1994.

Parallel with the decline in economic activity and hyperinflation, the **number of pensioners** in FRY **significantly increased**: from 833 thousand in 1985 to 1.03 million in 1990 and then to 1.19 million in 1994. In the conditions of hyperinflation, the real level of pensions in

FRY declined and that decline lasted until January 1994, when the Monetary Reconstruction Programme was launched.

Gross investments in fixed funds, according to official statistics, declined in 1991 in real terms by 14.7 percent and that real drop in the following three years equalled: 29.9 percent in 1992, as much as 37.6 percent in 1993 and 12 percent in 1994. The ratio of investments to domestic product dropped from 20 percent down to 13.3 percent in 1995. This is indicative of significant disinvestment in FRY in the observed period.

Table 6

Investment trends
(real investment growth rates, investment ratios)

	Investment growth rates %	Investment to GDP ratio %
1990		20.2
1991	-14.7	19.5
1992	-29.9	19.0
1993	-37.6	17.1
1994	-12.0	14.7
1995	-3.7	13.3
1996	-5.7	11.9
1997	0.8	11.1

Source: Statistical Yearbook of Yugoslavia 1996 and 2001,

From 1991 until the end of 1993 total **domestic trade in goods** declined in real terms by 62.8 percent. More specifically, from 1991 until the end of 1993 **turnover in retail trade** fell in real terms by 64.7 percent, and in wholesale trade by 61.8 percent. Retail and wholesale trade did not start to recover until 1994, following complete eradication of hyperinflation.

5. Dinar Exchange Rate Trends

Changes in dinar exchange rates at the time of hyperinflation were drastic. Official exchange rate of the dinar to Deutschmark at the end of December 1991 was 13 dinars for 1 Deutschmark, while the informal

market rate was 6.3 times higher. During 1992, in the conditions of hyperinflation, dinar devalued drastically, so that at the end of December 1992 the official exchange rate was 465.3 dinars for 1 DM, while the informal market exchange rate was 1800 dinars for 1 DM. Further enormous devaluation of the dinar continued and at the end of December 1993 1 DM at the official rate reached 1.02 E+12 degree, while the informal exchange rate was even 3.9 fold higher.

Despite denomination that was carried out on 1 January 1994 through deletion of 9 zeroes, the exchange rate of the DM in the first three weeks of January 1994 rose immensely and on 21 January 1994 the official exchange rate was 1.3 E+7 dinars for 1 DM.

Table 7

Official and commercial (unofficial) exchange rate trends of the dinar to Deutschmark

	Official exchange rates of DM	Unofficial exchange rates of DM		Official exchange rates of DM	Unofficial exchange rates of DM		Official exchange rates of DM	Unofficial exchange rates of DM
Dec.1991	13.0	95	Jan.			1994/ 21 Jan.	1.34E+7	1.80E+7
Jan.1992	65.0	110	1993	473.30	4,200	1994/		
Feb.	84.2	140	Feb.	457.17	13,500	24-31 Jan.	1.00	1.00
Mar.	85.0	310	Mar.	461.16	25,000	Feb.	1.00	1.13
Apr.	200.0	520	Apr.	3.76E+4	7.5E+4	Mar.	1.00	1.23
May	200.0	830	May	5.66E+4	3.90E+5	Apr.	1.00	1.30
Jun.	200.0	1,510	Jun.	1.18E+6	1.30E+6	May	1.00	1.20
Jul.	134.4	225	Jul.	1.11E+7	2.30E+7	Jun.	1.00	1.18
Aug.	141.7	300	Aug.	8.50E+7	2.30E+8	Jul.	1.00	1.18
Sept.	138.3	295	Sept.	2.83E+8	2.00E+9	Aug.	1.00	1.18
Oct.	129.4	410	Oct.	2,099.00	6.00E+4	Sept.	1.00	1.30
Nov.	467.6	820	Nov.	1.28E+7	4.12E+7	Oct.	1.00	1.36
Dec.	465.3	1,800	Dec.	1.03E+12	5.00E+12	Nov.	1.00	1.50

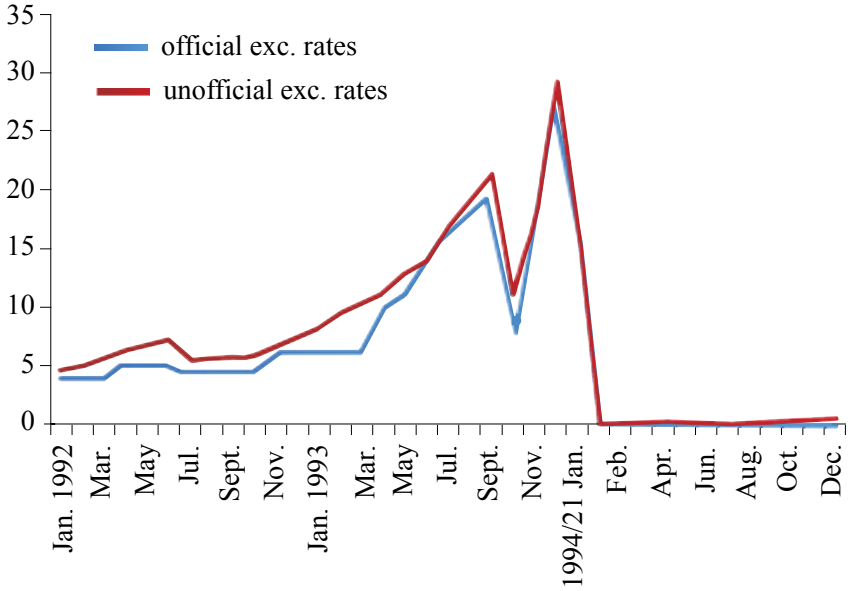
Source: NBJ/NBS data

* Denomination of the dinar, 1 July 1992 – 1 zero deleted
* Denomination of the dinar, 1 October 1993 – 6 zeroes deleted
* Denomination of the dinar, 1 January 1994 – 9 zeroes deleted
* 24 January 1994 – 1 new dinar = 13,000,000 old dinars
* 24 January-30 June 1994 – 1 new dinar = 12,000,000 old dinars

In the period of hyperinflation in FRY dinar underwent 4 denominations. The first denomination of the dinar was undertaken in July 1992 by deletion of one zero, subsequent denomination in October 1993 involved deletion of 6 zeroes, while the biggest one took place on 1 January 1994 through deletion of nine zeroes.

Figure 5

Official and market (unofficial) exchange rates of the Deutschmark, 1992-1994 (natural logarithm - ln)



Source: NBJ/NBS data

6. Fr Yugoslavia's Foreign Trade Trends

The total foreign trade turnover in the period 1991-1995 was significantly reduced as a result of foreign-trade and financial embargo against FRY. A notably large decline in foreign trade activity occurred in 1994 and 1995, when the international pressure was particularly intensified with the intention of stopping hostilities in the territory of former Yugoslavia.

Thus the **total exports** fell drastically, from the level of USD 5.8 billion in 1990 to about 1/3 in 1995 (our estimate). **Total imports** fell from the level of USD 7.5 billion in 1990 to about 1/3 in 1995 (our estimate).

7. How Hyperinflation In FR Yugoslavia Was Curbed In 1994

The main objective of **the Programme of Monetary Reconstruction and Economic Recovery of Yugoslavia** was to interrupt hyperinflationary flows and reconstruct the monetary system in a short period in which stable trends of prices on the local market would be established and the exchange rate of the national currency stabilised. The Programme also provided for central bank's independence from Government's fiscal policy and cessation of fiscal deficit monetisation (without foreign-currency backing), because monetisation of fiscal deficit had the greatest proportions in 1993 and in January 1994.

Until the introduction of the **Monetary Reconstruction Programme**, real fiscal revenues were plummeting despite their continuous nominal growth, which is a phenomenon known in economic theory and practice (Olivera-Tanzi effect) and in January 1994 real fiscal revenues reached the lowest point.

The same happened with principal monetary aggregates, because money supply M1, prior to introduction of **Monetary Reconstruction Programme,** amounted to only 50 million dinars (converted into new dinars), an amount insufficient to cover the minimum needs of economic transactors in the country. Due to hyperinflation, goods have been increasingly often traded through barter or transactions have been executed in foreign currency.

The second part of the Programme, which had long-term perspective, contained a strategy for economic recovery of FRY economy based on market principles, with equality of all forms of ownership, in the conditions of restrained inflation. Adoption of that Programme was needed due to complex economic and social situation in the country.

The following main measures have been adopted and implemented within **the Programme of Monetary Reconstruction and Economic Recovery of Yugoslavia** since 24 January 1994:

- **New dinar was introduced** as a single legal tender in the country;
- New dinar's parity was **1 new dinar = 1 Deutschmark**, with correct cross-referencing of exchange rates of other convertible currencies;
- **Full internal convertibility of the new dinar** into foreign convertible means of payment was introduced;

- The old dinar remained simultaneously in circulation until 22 July 1994 (at the parity of 1 new dinar = 12 million old dinars) and it was completely withdrawn from circulation on 22 August 1994;
- **Money issuing was capped** by available foreign exchange assets, while foreign exchange reserves were strengthened through NBY primary issue financed purchases of foreign currency via commercial banks and by securities issuing;
- The policy **of real positive interest rates of NBY** was adopted;
- Decision was reached to **abolish selective crediting by the NBY**, while further crediting was planned to be based on profitability of investment in economic and other projects;
- **Cutting of Government budget deficit** was planned. At the beginning of the Programme implementation budget could be credited by NBY only against full foreign currency coverage, to be followed by complete abolishment of deficit financing;
- NBY based **money creation** – primary issue – in 1994 on: available foreign exchange assets; foreign exchange assets purchased from households, corporate sector and commercial banks; on monetary gold; open market operations; securities rediscounting and other securities-based lending;
- NBY **restricted interest rates** and other costs of bank lending to 15 percent on annual level, requiring written confirmation by the bank director that the bank observes this ceiling, etc.

Owing to these and other attendant measures, **hyperinflation has been eradicated and reduced to zero** in the remaining part of 1994 – from end February to end December 1994.

According to the Programme, **monetary policy has been pursued independently**, but in coordination with fiscal and other macroeconomic policies.

Initially, for the needs of the budget, primary money in new dinars was issued in the amount of **USD 278 million (460 million Deutschmarks)** or in the amount of 460 million new dinars.

By these and other accompanying measures, **NBY carried out gradual and carefully controlled remonetisation**, having in view a very low level of money supply at the beginning of the Programme implementation. Money supply was thus gradually increased since January until the end of 1994.

At the end of January 1994, money supply equalled 187.4 million dinars, of which cash in circulation equalled 54.8 million dinars, and deposit money 132.6 million dinars. At the end of December 1994, after remonetisation undertaken during the year, money supply M1 equalled 2,435.1 million dinars, of which cash in circulation equalled 1,073.8 million dinars, and deposit money 1,361.3 million dinars.

After the implementation of the Monetary Reconstruction Programme and introduction of the new dinar at the end of January 1994, big and quick positive changes occurred in the economy: production, trade and other economic activities started to grow markedly, nominal and real wages, pensions and employment started to increase, along with a number of other favourable changes.

Finally, it should be noted that the elaboration and implementation of this Programme partly drew on experiences of other countries in curbing hyperinflation after the First and Second World War (e.g. in Germany, Hungary) and experiences of the Soviet Union in crushing inflation at the time of NEP (1922-1923), when new convertible rubble (*chervonetz*) was introduced.

References

Amandou, D., et. al — *Inflation and Hyperinflation in the 20th Century*, SIPA, April 2001.

Avramović, D. — *Pobeda nad inflacijom 1994* (Conquering inflation in 1994), Institut društvenih nauka, Centar za ekonomska istraživanja (Institute of Social Sciences, Economic Research Centre), Beograd, 1998.

Interview to magazine *Vreme* No. 458/16, October 1999.

Bukvić, R., Hadjic, M., Hinić, B. — *Ostvarenje programa rekonstrukcije monetarnog sistema i strategije ekonomskog oporavka Jugoslavije u prvih šest meseci 1994* (Implementation of the Monetary Reconstruction Program and Economic Recovery Strategy of Yugoslavia in the first six months of 1994), Jugoslovenski pregled No. 2/1994.

Mladenovic, Z. Nielsen, B.t — *The role of income in money demand during hyper-inflation: the case of Yugoslavia*, 27 March 2009.

Nielsen, B. — *Money demand in the Yugoslavian hyperinflation 1991-1994*, Department of Economics, University of Oxford, 8 December 2004.

Radojka, N. — *Dragoslav Avramović – tvorac jugoslovenskog ekonomskog čuda Dragoslav Avramović – the creator of the Yugoslav economic miracle*, Draganić Publishing Agency, Belgrade, 1995.

Sgard, J. — *Hyperinflation and the reconstruction of a national money: Argentina and Brazil, 1990-2002*, Florence, 11-13 June 2009.

Tara, M. — *Hyperinflation in Zimbabwe – Money Demand, Seigniorage and Aid shocks*, DRAFT, Trinity College Dublin, April 23, 2009.

*** Economic sanctions against former Yugoslavia (1991-1996).

*** Statistical Yearbook of Yugoslavia 1996, 2000 and 2001, Federal Statistical Office, Belgrade.

*** Statistical Yearbook of Serbia 2000 and 2001, Republic Statistical Office, Belgrade.

*** National Bank of Yugoslavia *Annual Report*, 1990, 1991, 1992, 1993, 1994, 1995, 1996 and 1997.

*** *Bulletin* of the National Bank of Yugoslavia, No. 1-9/1995, 12/1995, 3/1996 and 10/1996.

*** *Economic Policy Performance for 1994*, Federal Republic of Yugoslavia, Federal Government, Belgrade, June 1994.

*** *Osnove stabilizacionog programa sa epilogom.* (*Elements of the Stabilisation Programme with Epilogue)*, Institute of Economic Sciences, Belgrade, 1992.

*** *Program ekonomske stabilizacije* (Economic Stabilisation Programme), National Bank of Yugoslavia, 3 November 1995

*** *Dva veka razvoja Srbije Two Centuries of Serbia's Development*, Republic Statistical Office, Belgrade, 2008.

*** National Bank of Yugoslavia – *Statistical Survey No. 7*/September 1991.

*** *Indeks*, FRY Federal Statistical Office, various issues.

*** *Saopštenja o cenama na malo* (Reports on Retail Prices), FRY Federal Statistical Office, various issues.

COMPARATIVE ANALYSIS OF BANKS' RESERVE REQUIREMENTS COMPUTATION IN NINE COUNTRIES OF SOUTHEASTERN EUROPE AND VISEGRAD GROUP: INFLUENCE AND CONVERGENCE TO EU PARAMETERS

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Abstract

Reserve requirements are one of the most important monetary policy instruments, regulating banks credit potential, but also used to stabilize the short-term interest rates on the money market, manage the money supply, and reduce the structural excess liquidity. In spite of significant differences in reserve requirement ratios and the reserve computation base, bank systems of Macedonia, Serbia, Montenegro, Bosnia and Herzegovina, Czech Republic, Poland, Romania, Bulgaria, and Albania belong to a large group of market economies with interest earning reserve requirements, although with different remuneration rates paid on them to banks by the central bank. The reserve requirement maintenance period and conditions of its fulfillment vary, as well. In developed market economies, the role of reserve requirements as a powerful instrument for money supply control is much smaller than in the countries in transition or in less developed countries, like most countries considered. The chronological and structural comparison of reserve requirements fine-tuning in the observed countries at present situation and during the period of global economic and financial crisis as well as in the process of harmonization with the standards of the European Central Bank should remind us of specific importance and bring a new light to this monetary policy instrument.

Keywords: Banks' Required Reserves, Reserve Requirement Ratio, Reserve Requirement Maintenance Period, Reserve Requirement Computation Base

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1. Theoretic Framework of Reserve Requirements

Reserve requirements (or required reserves) are one of the oldest and most frequently used forms of portfolio regulation of the usage of a portion of bank assets in market economies. They can be defined as a monetary policy instrument requiring from banks to hold a certain portion of their portfolio as vault cash or on deposit at the central bank. Reserve requirements on banks are used today as an instrument having impact on credit and monetary multiplier, and thus influencing credits flow and money supply in various ways by:

- applying to: different (uniform or differentiated) reserve computation bases, comprising positions of liabilities and/or assets in banks' balance sheets; to daily bookkeeping balance or to average amounts of banks' balance sheets positions; to balance or its changes (margin base);
- applying uniform or differentiated ratios;
- depositing required reserves on a special or a regular account with the central bank;
- allowing or not allowing temporary usage of required reserves for securing bank liquidity;
- paying or not paying interest on funds deposited as required reserves by the central bank;
- applying reserve requirements as (one of) main or secondary monetary policy instrument; as a stable or flexible instrument; with smaller or bigger restrictions on deciding on reserve requirements by the central bank.

There are mainly two basic options for the choice of reserve requirement computation base. One of them is to include certain forms of bank assets in reserve requirement computation base. In this case, the reserve requirements will have impact on assets structure in banks' balance sheets in favor of those forms of credit institutions assets that imply lower reserve requirement ratios or which are not included in the reserve base at all. However, the second option, including certain forms of bank liabilities (as the parts of its deposit potential) in reserve requirement computation base, is usually implemented. The reserve requirements

calculated in that way have advantage over reserve requirements calculated based on certain forms of bank assets. The reserve requirements calculated based on bank liabilities do not cause distortions in credit institutions' investments and make their adjustment process easier in case of their deposit potential reduction, because reserve requirements are reduced in such situation, as well. There are two basic approaches about initial criteria for determining optimal level of reserve requirements. According to the first one, optimal reserve requirement ratio should induce maximum effects on monetary regulation (of necessary money supply in circulation). The second approach to determining optimal reserve requirement level (set wider than by the first one) begins from the implications of various levels of reserve requirements on achieving maximum efficiency in the functioning of the whole financial system.

Upon the influence of the process of financial innovations (enforcing the role of market mechanism in the financial sector of an economy), strongly developed in modern market economies at the end of 1970s and during 1980s, a theoretic view treating the reserve requirements as interest earning financial assets was established. An opinion was accepted that the level of interest rate paid on required reserves should be linked to the official discount rate of the central bank. In great number of developed or less developed market economies (like Spain, Sweden, Turkey, Australia, Finland, Greece, Island and Italy) the system of interest earning required reserves functions already. Interest rate paid on allocated required reserves in those countries is lower than market interest rate, while certain forms of banks' assets within allocated required reserves remain without any compensation. There is an opinion that banks' required reserves deposits with the central bank represent for the banks such investments that have no burden of any risk and it is therefore justified to pay lower compensation (interest) on such type of investment than the interest rate on other forms of bank assets, determined by market relations of supply and demand. The Central Bank of England uses special deposits as the substitute of reserve requirements and it pays the same interest on them as on treasury bills. Nevertheless, a number of other countries still keep non-interest earning reserve requirements – Germany, France, USA, etc.

Reserve requirements have stronger influence and are used as an instrument for regulating bank credit potential rather than financial potential or bank liquidity, as average ratio of reserve requirements to banks' credit potential is around 11.5 percent and only around 5 percent to the financial potential. There are optimal and equilibrium reserve requirement ratios. Optimal reserve requirement ratio is such ratio of allocating and releasing funds that enables bank and credit system normal functioning, with maintaining normal credit activity and liquidity of banks and the economy, without expansive or restrictive credit policy. Equilibrium reserve requirement ratio is such ratio that would fit its long-term trend around which short-term ratios fluctuate.

In respect to operating with these instruments, in theory there are three preliminary concepts:

- fixed reserve requirement ratio in a long term period,
- reserve requirements changes are done only exceptionally, in predetermined conditions of economy development and monetary policy implementation, or
- in order to provide more efficient monetary regulation, in a shorter time period, changes of these ratios are to be done, both upwards and downwards.

Reducing reserve requirement ratio is no problem for banks and the economy, especially in the economy with permanently higher demand than supply of money and credits. However, a problem occurs when reserve requirement ratio is to be raised. The rise of reserve requirements usually causes credits withdrawal from the economy, because the banks are faced with the effects of reserve requirements rise faster than they could withdraw a portion of credits from economy and direct it into raised required reserves. The central bank prescribes the rate for allocation of certain funds in respect to various categories of deposits or to the credit growth rate.

In developed market economies, the role of reserve requirements as an instrument for money supply control is much smaller than in the countries in transition or in less developed countries (like the countries considered in this paper), while there is much higher importance of short term interest rates on which the central bank has indirect impact through buying and selling securities, i.e. through open market operations.

2. Reserve Requirements on Banks in Macedonia

According to the Decision on reserve requirement of May 2009, the National bank of the Republic of Macedonia regulates the calculation and fulfillment of the reserve requirement for banks as well as foreign bank branches and savings houses, which have founding and operating license issued by the Governor of the National Bank. Reserve requirement is a standard instrument of the National bank monetary policy, which obliges the banks and savings houses to allocate funds on the accounts with the central bank. Main function of this instrument is stabilization of the short-term interest rates on the money market, managing the money supply and the level of credit multiplication and reduction of the structural excess liquidity. The reserve requirement base includes the banks' liabilities in both domestic and foreign currency and the savings houses' liabilities in domestic currency (deposits and received credits, issued debt securities, and other liabilities), but does not include: liabilities to banks and savings houses; liabilities to the National Bank; and liabilities based on subordinated and hybrid capital instruments, being a part of the bank's additional capital[1].

The banks submit the reports to the National Bank through its Electronic System on the liabilities outstanding, comprising the reserve requirement base, for each day of the calendar month, until the last working day, at the latest, before the beginning of the fulfillment period. The liabilities in foreign currency, for each day of the calendar month, are presented in Denars by applying the middle exchange rate of the National Bank, valid on the last day of the calendar month. The reserve requirement base for a certain fulfillment period is calculated as an average of the liabilities for each day of the calendar month that precedes the fulfillment period. The average of the foreign currency liabilities are presented in Euros, as well, by applying the middle exchange rate of the National Bank valid on the last day of the calendar month. The reserve requirement ratio for banks is:

- 10 percent for liabilities in domestic currency;
- 20 percent for liabilities in domestic currency with foreign exchange (FX) clause (since July 2009);

[1] *www.nbrm.gov.mk*

- 13 percent for liabilities in foreign currency (11.5 percent in June/July 2009, and previously – 10 percent); and
- 2.5 percent is the reserve requirement ratio for savings houses.

The banks' reserve requirement in Denars is calculated as a sum of the amount obtained by applying the appropriate ratio to the base of the liabilities in domestic currency and to 23 percent (the percentage being in June/July 2009 13 percent, and previously 0 percent) of the base of the liabilities in foreign currency, while the remaining 77 percent are calculated in foreign currency. The bank fulfills the reserve requirement in Denars on average basis i.e. if the average daily outstanding amount on the bank account with the National Bank for the fulfillment period is at least equal to the calculated reserve requirement, and on a daily basis, the bank can totally use the reserve requirement in Denars. The bank fulfills the reserve requirement in Euros if the daily outstanding amount of the allocated funds of the bank on the foreign exchange account of the National Bank abroad is at least equal to the calculated reserve requirement. Banks' reserve requirement in foreign currency is allocated on special FX accounts of the NBRM abroad, and it is fulfilled in Euro at a fixed level. Savings houses fulfill reserve requirement on special accounts with the NBRM at a fixed level. The reserve requirement maintenance period begins on the 11th day in the current month and end on the 10th day in the following month.

The remuneration of the reserve requirement in Denars is 2.00 percent p.a. and in Euros equals 0.1 percent (since October 2009, while previously was 0 percent). It is paid upon expiration of the fulfillment period and calculated at maximum to the amount of the reserve requirement by applying the formula:

$$N = (ZR * n * d) / (100 * 360),$$

where: N is the remuneration of reserve requirement for the maintenance period, ZR – the amount of the fulfilled reserve requirement, n – the remuneration rate, and d – the number of days in the maintenance period.

The National Bank calculates and charges penalty interest for failing to fulfill the reserve requirement by banks and savings houses. The interest rate the banks have to pay for the utilization of required reserves or on

required reserves not deposited on time was 19.5 percent until February 2010, when it was reduced to 18.5 percent, and in July 2010 again to 15 percent, which is the rate in vigor at present.

3. Reserve Requirements on Banks in Serbia

The main monetary policy instruments of the National Bank of Serbia are: open market operations, lending and deposit facilities (standing facilities), and reserve requirements. Monetary policy instruments do not have a direct impact on monetary policy objectives. As there can be a several month lag in the effect of monetary policy, the National Bank of Serbia focuses on the achievement of operating and intermediate targets. Operating targets are easy to control, but are remote from the ultimate objective, while intermediate targets are hard to control, but closer to the ultimate objective. As in the case of more developed market economies, and particularly those pursuing inflation targeting regime, the National Bank of Serbia's operating target are interest rates in the inter-bank money market, and its intermediate target is the inflation projection. Required reserves are funds, which banks have to deposit on a special account with the central bank. The amount of such funds is determined by the reserve requirement ratio, either uniform or differentiated, and applicable to either total deposits or a portion of deposits. By changing the reserve ratio, the central bank induces a reduction or expansion of commercial banks' lending potential, and/or creation of additional liquidity. In market economies, reserve requirement ratio is used as an instrument for regulating bank credit potential rather than bank liquidity. The National Bank of Serbia uses reserve requirements only as a supportive instrument when the effects of all other market-based measures for monetary regulation are exhausted. Decisions on the level of reserve ratios and the reserve base are taken by the National Bank of Serbia's Monetary Policy Committee.

Pursuant to the Decision on Required Reserves of Banks with the National Bank of Serbia (RS Official Gazette No 12/2010)[2], the base for calculation of required reserves consists of:

[2] *www.nbs.rs*

- dinar deposits, credits, securities and other dinar liabilities, including portions of dinar deposits received under transactions performed by a bank on behalf and for the account of third parties that are in excess of the amount of investment made from such deposits, apart from foreign currency clause indexed dinar liabilities; and
- foreign currency deposits, credits, securities and other foreign currency liabilities, as well as deposits, credits and other foreign currency funds received from abroad under transactions performed by a bank on behalf and for the account of third parties, including foreign currency clause indexed dinar liabilities.

Banks do not calculate required reserves against:

- liabilities due to the National Bank of Serbia;
- liabilities due to banks allocating required reserves with the National Bank of Serbia;
- subordinated liabilities recognized by the National Bank of Serbia as eligible for inclusion into the bank's supplementary capital;
- dinar and foreign currency liabilities in respect of funds received by banks from international financial institutions, governments and financial institutions founded by foreign states, through the intermediation of the government as the main debtor and/or owner of these funds or received directly, provided that the agreed principles of setting interest spreads are complied with on reinvestment of these funds;
- foreign currency balances held by leasing companies in a special-purpose account opened with a bank; and
- dinar and foreign currency liabilities in respect of deposits, credits and other funds received from abroad from 1 October 2008 to 31 March 2010, until the originally established maturity of such liabilities, but not later than 31 December 2013.

Required reserves are calculated by applying the following differentiated reserve ratios:

- 5 percent – on the dinar reserve base (instead of earlier 10 percent); and

- 25 percent – on the foreign currency reserve base (instead of earlier 45 percent).

Banks calculate required reserves once a month, i.e. on the 17th day of a month by applying appropriate ratio to the average daily bookkeeping balance of dinar and/or foreign currency assets included in the base for the calculation of required reserves in the preceding calendar month and taking into account all of its days. Calculated dinar required reserves are allocated in dinars. Calculated foreign currency required reserves are allocated in euros. If due to allocation of foreign currency required reserves in euros the bank foreign exchange risk ratio deviates from the ratio prescribed, a bank may allocate such reserves in US dollars.

In the maintenance period from the 18th day of the month until the 17th day of the following month, banks are obliged to maintain the average daily amount of allocated dinar and/or foreign currency required reserves at the level of calculated dinar and/or foreign currency required reserves. The daily balance of allocated dinar and/or foreign currency required reserves may be higher or lower than calculated required reserves. All days in the maintenance period are included in calculation of the daily average of allocated dinar and/or foreign currency required reserves. The daily average of reservable foreign currency liabilities as well as foreign currency clause indexed dinar liabilities, making up a portion of the foreign currency base shall be expressed in euros; balances denominated in other currencies, including dinars, shall be recalculated each day to euros by applying official middle exchange rates of the National Bank of Serbia for corresponding currencies.

The interest in respect of required reserves is calculated and paid and/or charged in the currency in which required reserves are allocated, i.e. in dinars and euros. The National Bank of Serbia pays to banks interest in dinars – on the amount of actual average daily balance of allocated dinar required reserves in the maintenance period not exceeding the amount of calculated required reserves – at the interest rate of 2.5 percent p.a. on the second business day after the expiry of the maintenance period.

The National Bank of Serbia charges interest to banks at the following rate:

- at the level of 150 percent of the key policy rate on the amount of difference between the calculated amount and actual average daily balance of allocated dinar required reserves and on the difference between the prescribed and calculated amount of dinar required reserves;
- at the level of 3-month EURIBOR, applicable on the day of interest calculation, increased by 10 percentage points on the amount of difference between the calculated amount and actual average daily balance of allocated foreign currency required reserves and on the amount of difference between prescribed and calculated amount of foreign currency required reserves.

In the transition period starting from 18 April-17 May 2010 and ending with 18 January-17 February 2011 maintenance period, banks shall keep the average daily balance of allocated foreign currency required reserves at least at the level of the reference foreign currency required reserves, in any maintenance period in which the calculated foreign currency required reserves are lower than the reference foreign currency required reserves. Reference foreign currency required reserves shall equal calculated required reserves in euros on March 17, 2010, reduced by calculated required reserves in respect of leasing and increased by calculated dinar required reserves in respect of dinar liabilities indexed by foreign currency clause. Reference foreign currency required reserves are established in euros. Banks may reduce the obligation to allocate reference foreign currency required reserves by 25 percent of the increase in long-term housing loans insured with the National Mortgage Insurance Corporation and credits approved under the Government Program, relative to the balance of these credits as at 28 February 2010. The obligation to allocate reference foreign currency required reserves, following the reduction, may not be smaller than calculated foreign currency required reserves. Reference foreign currency required reserves shall be allocated in euros and dinars, with the portion allocated in dinars being gradually reduced and the portion allocated in euros increased:

- by the amount of difference between calculated foreign currency required reserves and a portion of reference foreign currency required reserves allocated in euros if calculated foreign currency required

reserves are higher than the portion of reference foreign currency required reserves allocated in euros;

- by the amount of 25 percent of the increase in special-purpose credits (housing loans insured with the National Mortgage Insurance Corporation and credits approved under the Government Program) up to the level of calculated foreign currency required reserves.

Banks whose calculated foreign currency required reserves are higher than reference foreign currency required reserves shall allocate calculated foreign currency required reserves in euros. Exceptionally, if calculated foreign currency required reserves of a bank allocating the reference foreign currency required reserves were higher than the reference foreign currency required reserves in the prior maintenance period, the reference foreign currency required reserves shall be allocated in euros. Banks allocating calculated foreign currency required reserves in the 18 January-17 February 2011 maintenance period equivalent to the adjusted reference and/or reference foreign currency required reserves, in the 18 February-17 March 2011 and 18 March-17 April 2011 maintenance periods, shall act by:

- allocating foreign currency required reserves in the amount of calculated foreign currency required reserves in euros, in the maintenance period when their calculated foreign currency required reserves are higher than the adjusted reference and/or reference foreign currency required reserves,

- allocating foreign currency required reserves in the maintenance period when their calculated foreign currency required reserves are lower than the adjusted reference and/or reference foreign currency required reserves, in the amount of adjusted reference and/or reference foreign currency required reserves reduced by 1/3 and/or 2/3 of the difference between the adjusted reference and/or reference foreign currency required reserves and calculated foreign currency required reserves.

The reductions of adjusted reference and/or reference foreign currency required reserves shall first be made from the remaining dinar portion of the adjusted reference and/or reference foreign currency required

reserves. Starting from the 18 April-17 May 2010 maintenance period and ending with the 18 March-17 April 2011 maintenance period, dinar funds allocated in respect of foreign currency required reserves shall be treated in the same way as funds of allocated dinar required reserves. When determining the currency structure of reference foreign currency required reserves, banks can apply on the pertaining portion of these reserves 20 percent instead of the percentage valid for the bank on 17 March 2010. If the bank defaults on obligations allowing it to use special financial facilities, a new currency structure of reference foreign currency required reserves shall be established by applying 40 percent instead of 20 percent, starting from the first maintenance period following that in which it received the National Bank's notification of default.

4. Reserve Requirements on Banks in Montenegro

The banks in Montenegro calculate and allocate reserve requirements according to provisions of the Decision on Bank Reserve Requirements to be held with the Central Bank of Montenegro ("Official Gazette of Montenegro", Nos. 9/07, 65/08, 15/09, and 41/09)[3].

Based on the amended Decision, the system of reserve requirement calculation for sight and time deposits (that are now all included in the reserve computation base) has been established by either applying the uniform ratio of 10 percent (reduced by 1 percent and implemented instead of previous differentiated ratios) on the average amount of deposits from the first maintenance period in June 2009 or on the average amount of total deposits in the current period if the same is lower than the average amount of deposits from the first maintenance period in June 2009. This means that reserve requirements are not calculated on the increase of deposits, but on the amount of deposits from the first maintenance period in June 2009.

The banks calculate and submit to the Central Bank the reports in the prescribed forms on a weekly basis. Depositing into or withdrawing reserve requirement funds from the reserve requirement account in the country, into the CBM accounts abroad, and in the form of Government T-bills up to 25 percent (instead of previous 20 percent), are performed on Wednesdays. Calculated and allocated reserve requirement funds of

[3] *www.cb-mn.org*

the banks with the Central Bank as at February 28, 2010 amounted to EUR 166.3 million, out of which 63.5 percent was deposited in the reserve requirement account in the country, 13.9 percent in the CBM accounts abroad, and 22.6 percent in the form of Government T-bills.

The Central Bank pays interest to the banks, on 25 percent (instead of previous 30 percent) of the allocated bank reserve requirement, at the interest rate of 1 percent p.a. The banks may use up to 50 percent of their reserve requirement deposits interest free to maintain their daily liquidity (but no more than ten working days in a month), provided that they return the used amount on the same day. If the bank fails to return the used amount of reserve requirements on the same day, it pays 7 percent (instead of previous 11 percent) p.a. interest rate, and 12 percent p.a. interest rate on the amount of the difference between the prescribed and less allocated reserve requirements stemming from the wrong calculation.

5. Reserve Requirements in Bosnia & Herzegovina

The reserve requirements on banks in Bosnia and Herzegovina are regulated by the Law on the Central Bank of Bosnia and Herzegovina („Official Gazette of BiH", Nos. 1/97, 29/02, 8/03, 13/03, 14/03, 9/05, and 76/06)[4], where it is stipulated that:

- the Central Bank's Governing Board define the minimal amount of required reserves, implemented equally for all banks, maintained by way of deposits with the Central Bank, and calculated on deposits and borrowed funds, as average daily reserves over ten day periods, regardless in which currency the funds are denominated and which banks are subject to hold with the Central Bank, either through its Main Office or Main Units;
- the compensation paid by the Central Bank to banks on the amount of their required reserves is determined by the Governing Board regulation;
- if a bank fails to fulfill its required reserves for two consecutive periods, the Central Bank ceases to process withdrawal transactions for the bank, and informs the appropriate banking authorities so that

[4] *www.cbbh.ba*

the appropriate measures are taken to correct the shortfall within the same period, i.e. ten days; if the failure to fulfill the reserve requirement continues for another period, i.e. ten days, the Central Bank informs the appropriate banking authorities so that they can undertake appropriate steps against the bank; the Central Bank imposes on and collects from any bank that fails to maintain the required reserves prescribed by the Central Bank a penalty of up to five per mil (5/1,000) per day on the shortfall in such bank's required reserves, until the shortfall is corrected;

- the Central Bank, on the instructions of the responsible Banking Agency opens a special reserve account for any commercial bank which is required to block deposits, transactions or otherwise of persons or companies identified by a blocking order issued by or under the authority of the Banking Agency of Republika Srpska or of the Federation of Bosnia and Herzegovina; any commercial bank which has an obligation under a blocking order issued as aforesaid, is required to transfer immediately an equivalent amount from its reserve account at the Central Bank of Bosnia and Herzegovina into such special reserve account; the funds remain in this special reserve account until release is authorized by the responsible Banking Agency; the Central Bank of Bosnia and Herzegovina, upon the instructions of the responsible Banking Agency, blocks all reserve accounts of any commercial bank which fails to comply with the instructions as aforesaid of the responsible Banking Agency; the accounts remain blocked until the Central Bank of Bosnia and Hezegovina receives an authorization from the responsible Banking Agency to allow the account or accounts to be unblocked.

The Central Bank changes the reserve requirements ratio in accordance with its financial and monetary policy, so that (e.g.) it was 14 percent for short term deposits and borrowed assets in the period January 1 through June 30, 2009, but for long term deposits and borrowed assets it was reduced from 10 percent in the period January 1 through April 30 to 7 percent in the period May 1 through June 30, 2009.

The funds borrowed from foreign banks after October 31, 2008 as well as (since May 1, 2009) the funds that entities governments invest in

development projects are exempted from the reserve computation base. Since April 1, 2009 interest is calculated and paid on required reserves at the rate of 0.5 percent p.a. (instead of previous 1 percent).

6. Banks Reserve Requirements in the Czech Republic

One of the main instruments of monetary policy of the Czech National Bank (CNB) is minimum reserves[5]. Every bank, building society and foreign bank branch that has a banking license in the Czech Republic or intends to operate in the Czech Republic based on the "Single License" is required to hold a pre-specified volume of liquid funds - known as minimum reserves - on its account with the CNB. At present, each bank holds its minimum reserves on its account with CNB Clearing ("payment system account") and on a deposit and withdrawal account if such an account has been opened. The reserve requirement is currently of little significance as a monetary policy instrument, but the money held on these accounts fulfils another important role: it serves as a cushion for the smooth functioning of the interbank payment system at CNB Clearing.

On October 7, 1999, the CNB completed the process of gradually lowering its reserve ratio to 2 percent, which is equal to that set for the Euro system by the European Central Bank, and the same as in Slovakia, which adopted the euro on January 1, 2009 and became a member of the euro area. Therefore, the minimum reserve requirement on banks is now still 2 percent of primary deposits as the base used for calculating the minimum reserves. Effective from 12 July 2001, the reserve base is the volume of bank's primary liabilities (chiefly deposits from non-banks) with maturity up to 2 years.

Each bank is required to maintain over a maintenance period (of approximately one month - starting on the first Thursday of the respective month and ending on the Wednesday before the first Thursday of the following month) an average end-of-day balance on its minimum reserves accounts equal to or greater than the reserve requirement set for the given maintenance period. Since 12 July 2001, the funds on this account have been remunerated at the CNB two-week repo operations rate up to the

[5] *www.cnb.cz*

pre-specified volume of minimum reserves (before this date they were not remunerated). On May 7, 2010, this rate was lowered from 1.00 percent to 0.75 percent.

To keep the interbank payment system functioning smoothly following the lowering of the reserve requirement to its present level, a collateralized (i.e. extended to banks in exchange for securities) intraday credit facility was introduced after the reserve requirement was lowered. Within this facility, the CNB - as the operator of the payment system and the short-term bond settlement system - provides short-term intraday credit to banks to enable them to make payments even if they do not have sufficient funds on their payment system accounts with the CNB. No interest is charged on intraday credit and there is automatic spillover into the marginal lending facility in the event of non-repayment. In that case, the Lombard rate of 1.75 percent (also lowered from 2.00 percent on May 7, 2010) is applied. The marginal lending facility is a standing facility, which banks that have a general repo agreement with the CNB may use to obtain overnight liquidity from the CNB in the form of repos. A bank has right of access to the lending facility provided that it requests the CNB's Interventions Division to execute the transaction no later than 25 minutes before the end of the CERTIS system clearing day. The minimum volume is CZK 10 million.

Amounts exceeding this limit are provided without further restrictions. The interest rate applied to this facility is the Lombard rate. Owing to a persistent liquidity surplus, banks make minimal use of this facility. The Lombard rate provides a ceiling for short-term interest rates on the money market. The CNB may at any time, for extraordinary monetary-policy reasons, temporarily limit or completely suspend the provision of Lombard loans.

7. Reserve Requirements on Banks in Poland

As an instrument for the implementation of its monetary policy, the National Bank of Poland (NBP) imposes on the banks the obligation of maintaining required reserves[6]. The purpose of these reserves is to smooth out the impact of movements in banking sector liquidity on interbank

[6] *www.nbp.pl*

interest rates. They also serve to limit excess bank liquidity. The required reserve constitutes a portion, expressed in zloty, of funds accumulated on bank accounts and obtained from the sale of securities and other repayable funds accepted by the banks, except for funds taken from another domestic bank, or obtained from abroad for a period of not less than two years. The required reserve is held on accounts with the NBP. Reserve requirements are set by the Monetary Policy Council (MPC).

On June 30, 2009 the required reserve ratio was lowered from 3.50 percent to 3.00 percent for all types of deposits, except for funds obtained from repurchase agreements (i.e. sale of repo securities), whose required reserve rate remained 0 percent. Since September 30, 2003, all banks have been reducing their calculated required reserves by an equivalent of 500,000 euro. Since May 1, 2004, the required reserve funds carry interest.

In 2009, the requirement to maintain a specific amount of reserves on accounts with the NBP applied to banks, branches of credit institutions and branches of foreign banks operating in Poland. Required reserves were maintained in the averaged system. Banks were obliged to hold the average balance of funds on accounts with the NBP during the maintenance period at a level not lower than the amount of the reserve requirement. Required reserves were calculated based on banks' collected deposits and funds received from the sale of securities. Excluded from required reserve calculation base were funds received from another domestic bank, acquired from abroad for the period of minimum two years and deposited in credit and savings accounts of building societies and in individual pension funds. Required reserves were calculated and maintained in the Polish zloty.

The reduction of the reserve requirement ratio in 2009 aimed in particular at supporting bank lending. Banks reduced the amount of calculated reserve requirement by the equivalent of EUR 500,000. The holdings of required reserves held on NBP accounts were remunerated at 0.90 of the NBP rediscount rate. The average interest on reserve requirement funds in 2009 amounted to 3.60 percent. It is now 3.38 percent as 0.90 of the present NBP rediscount rate of 3.75 percent.

The decision by the MPC to reduce the reserve requirement ratio by 0.50 percentage points led to the reduction of the level of reserve requirement starting from the second half of 2009. The reduction of the difference between the required and maintained reserves in particular reserve maintenance periods was supported by: remuneration of reserve holdings only to the amount of the reserve requirements, banks' use of instruments facilitating asset management on the NBP accounts (intraday credit, standing deposit facility and Lombard credit).

Injection of additional liquidity to banks by the NBP (buy-back of NBP bonds before maturity and reduction of the required reserve ratio) supported banks in asset management, and facilitated maintaining the reserve holdings at the level required in every reserves maintenance period, which materialized for the first time since the introduction of the reserve requirement instrument in 1989.

During the required reserve maintenance periods, the surplus liquidity not absorbed in the form of NBP's main operations, was maintained by banks with the use of two instruments offered by the NBP. At the beginning of required reserve maintenance periods, banks strived to hold more funds on current accounts at the central bank (above the level of reserve requirement), while holding more funds on current accounts banks could comply, at an earlier stage, with the reserve requirement. This phenomenon, called frontloading, was characteristic in the earlier period of monetary policy operational frameworks of many central banks using the averaged required reserve framework. The averaged reserve requirement and the absence of remuneration of funds held with the NBP above the level of reserve requirement, encouraged banks, at the end of the maintenance periods, to place the accumulated excess funds with the central bank using standing deposit facility. This instrument made it possible to maintain similar flexibility in the management of the accumulated liquidity surplus as in the case of frontloading. At the same time, it allowed to earn income on the accumulated funds (1.5 percentage points below the yield offered by the central bank through the issuance of NBP bills).

The underbidding in tenders for main operations, resulting from banks' preferences to manage their liquidity on an overnight basis, led to the situation in which in the required reserve maintenance periods, banks generally held current liquidity surpluses. As a result, they deposited excess funds for the shortest possible period in the interbank market at yields lower than the NBP reference rate and made an overnight deposit with the NBP, bearing interest rate at the level of the NBP deposit rate. Thus, the POLONIA rate was in the majority of cases below the NBP reference rate. Similar trends in 2010 were observed in the interbank markets of the euro area, the United Kingdom and countries with liquidity conditions in the banking sector similar to those existing in Poland (e.g. Hungary).

8. Reserve Requirements on Banks in Romania

The reserve requirements in Romania include both leu- and foreign currency-denominated holdings of credit institutions on accounts opened with the National Bank of Romania (NBR). While the main functions of leu-denominated reserve requirements are the monetary control (in close correlation with liquidity management by the NBR) and the stabilization of interbank money market rates, the major role of foreign currency-denominated reserve requirements is to contain the expansion of foreign exchange loans.

The reserve requirements are computed as the average daily balances held with the NBR during the maintenance period, which is one-month long and successive to the observance period, lasting from the 24th of the previous month to the 23rd of the current month. The reserve base is determined as the average daily balances (during the observance period,) of all (both leu- and foreign currency-denominated) liabilities from credit institutions' balance sheets (except interbank liabilities, obligations to the NBR, and own capital).

The reserve requirements ratio differs in terms of currency and residual maturities of the items included in the reserve base. Since July 24, 2009, it has been 15 percent on leu denominated liabilities, and since November 24, 2009, it has been 25 percent on foreign currency denominated liabilities with residual maturity shorter than two years from the end of

the observance period as well as on those with residual maturity longer than two years if they have clauses referring to an early withdrawal, repayment or transfer. If they are without such clauses, the reserve ratio is 0 percent, the same as for non-repayable loans (which is in vigor since August 2002).

Since January 24, 2011, the interest is paid at the rate of 1.47 percent, 0.84 percent, and 0.48 percent p.a. on leu, EUR, and USD denominated required reserves respectively. The reserve deficit is subject to a penalty rate, paid at the rate of 15.50 percent p.a. on leu- and 12.75 percent p.a. on both EUR and USD denominated required reserves. The recurrent deficits are sanctioned on behalf of the NBR by a warning, fine or limitation of operations conducted by the credit institutions[7].

9. Reserve Requirements on Banks in Bulgaria

From 2004 to 2006, the Bulgarian National Bank (BNB) applied four groups of measures to decrease the growth rate of lending to the private sector and to control the level of risk in the banking system: supervisory, information (improving the credit register and the access to it), monetary (extending the reserve requirement deposit base), and administrative (introducing additional required reserves for loan growth of over 6 percent per quarter). The results showed that their effect decreased in time, creating additional expenses for the commercial banks, while the EU integration of the country required equal treatment of commercial banks regulated by the BNB, and those regulated by the supervisory authorities in other EU countries. Thus, when Bulgaria joined the EU, as of January 1, 2007, the BNB could cancel the administrative restrictions on the bank credit growth rates, preserving at the same time the strict supervisory requirements, broader deposit base, and the right to react in case of a rapid credit rate growth.

Since lending has remained the main means for business and household financing, the growth rate of the bank credits has almost doubled in the first half of 2007, reaching 47.7 percent in June, and increasing the private sector indebtedness to the banking system up to 57.5 percent of

[7] *www.bnro.ro*

the GDP. Therefore, as of September 1, 2007, the minimum required reserves maintained by banks with the BNB were raised from 8 percent to 12 percent of their deposit base, in order to set the bank credit growth rate at moderate and sustainable level, not jeopardizing the banking system stability. The impact of this measure materializes by means of withdrawing the liquidity from the banking system, which would otherwise be used to fuel rapid credit growth, and by means of increasing the cost of attracted resources of commercial banks, which will be transferred over entirely or partially into the cost of credit, and hence will influence the credit demand, while relieving the country's balance of payments of the pressure from the strong domestic demand.

According to the Ordinance No. 21 on the Minimum Required Reserves Maintained with the BNB by Banks (issued by the BNB in 1998, and amended in 2000, 2002, 2003, 2004, 2005, 2006, 2007, 2008, and last time in 2010), the deposit base on which the amount of minimum required reserves is determined includes banks' attracted funds in levs and foreign currency with the exception of funds attracted from other local banks and through the branches of a local bank abroad as well as through debt/capital (hybrid) instruments or as subordinated term debt, provided they meet the requirements of the BNB on the Capital Adequacy of Banks.

The amendments to the Ordinance, adopted in November 2008, decreased as of December 1, 2008, the minimum required reserves on all attracted funds of the banks from 12 percent to 10 percent, and as of January 1, 2009, the minimum required reserves on funds attracted by the banks from abroad from 10 percent to 5 percent, while no minimum required reserves are allocated on funds attracted from the state and local government budgets[8].

The maintenance period over which the banks are required to maintain minimum required reserves begins from the fourth day of the reporting basis period (considered to be each calendar month) and ends on the third day of the following period. The amount of minimum required reserves, which each bank is obliged to reach at the end of the maintenance period, is computed by multiplying the banks' deposit base for all days of the

[8] *www.bnb.bg*

basis period by the percentage of the minimum required reserves, with the result being a round figure. The BNB may decide to pay interest on the lev component of the minimum required reserves, which banks maintain on their settlement accounts with the BNB. This interest is being paid in levs and its rate may not exceed the income which the BNB receives from its investments in euro.

Recognizing 50 percent of commercial banks' cash on hand as reserve assets constrains the volatility of the interbank money market and promotes banks' activities in the credit market. However, should a bank use over 50 percent of the lev equivalent of the payable minimum required reserves on its accounts with the BNB, it has to pay interest in levs to the BNB for the excess over 50 percent for each day of use, and any bank which at the end of the maintenance period reports a shortage of minimum required reserves, has to pay interest in levs to the BNB for the amount of the shortage, at a rate determined according to the methodology approved by the BNB Governing Council. The interest is accrued on an annual basis for the number of days of the reporting maintenance period and for the amount of shortage, and collected by the BNB by setting off the amount due from the bank's accounts with the BNB.

10. Reserve Requirements on Banks in Albania

The minimum reserve requirements in Albania serve as a monetary policy instrument aiming at adjusting the banking system liquidity and stabilizing the money market interest rates. The amount of reserves to be held by each commercial bank is determined in relation to its reserve base applying the required reserve ratio, which is now 10 percent, and is the same for Lek and foreign currency liabilities. The reserve base of a bank is composed of deposits denominated in Albanian lek and foreign currency. The foreign currency reserve base consists of dollar and euro liabilities. Euro reserve base includes liabilities in the European currency and in every other currency, except US dollar, converted in euro using the fixed exchange rate of the Bank of Albania on the last day of reserve base period.

For banks subject to minimum reserve requirements, the balance sheet data at the end of the month are used to determine the reserve base for the

maintenance period starting in the next calendar month. The maintenance period is one month and it starts on the 24th calendar day of the month following the base reporting period, and ends on the 23rd calendar day of the following month. The Bank of Albania's minimum reserve system enables banks to make use of the averaging provisions. Banks have the right to use on daily basis 40 percent of their required reserve in Lek, provided that the average of the reserve balance on the last day of the maintenance period does not fall below the required reserve level[9].

Required reserves denominated in Lek are remunerated at a rate calculated as 70 percent of the base rate, while the holdings of required reserves in Euros are remunerated at a rate calculated as 70 percent of the European Central Bank's refinancing rate, and minimum reserves in US dollars are remunerated at a rate calculated as 70 percent of Federal Reserve rate. The remuneration is paid on the next business day following the end of the maintenance period.

In the case the bank fails to comply with the reporting deadline, the required reserve level is determined 10 percent higher than the required reserve level at the preceding maintenance period, but this amount cannot be more than Lek 700 million (or the equivalent amount in Euro and USD). In case the real but not reported level of required reserves, verified by Bank of Albania after the beginning of the maintenance period, results higher than the level specified above, the bank is subject to the same penalties as in the case of erroneous reporting. The financial sanctions currently applied for non-compliance with the minimum reserve obligations are:

- for Lek minimum reserves – a penalty rate of 600 basis points above the Bank of Albania key interest rate on the last day of the reserve base period, but not more than twice this rate;
- for USD minimum reserves – a penalty rate of 200 percentage points above the Federal Reserve key interest rate on the last day of the reserve base period, but not more than twice the Bank of Albania's key rate; and
- for EUR minimum reserves – a penalty rate of 200 percentage points above the European Central Bank key interest rate on the last day of the reserve base period, but not more than twice the Bank of Albania's key rate.

[9] *www.bankofalbania.org*

11. Comparison and changes in the Last Three Years from 2008-2010

Macedonia, Serbia, Montenegro, and Bosnia and Herzegovina are all neighbour countries in the South-eastern Europe. They used to be the constituents of the former Yugoslavia. As economies in transition, they are on almost equal level of development and with similar socio-economic situation, problems and macroeconomic indicators. Nevertheless, their governments run relatively different macroeconomic policies.

These four countries, that used to have common currency just two decades ago, now have different currencies and their central banks create and implement particular monetary policies, by means of various monetary policy instruments. Reserve requirements are one of them and the central banks of these four countries, as well as the Bank of Albania, rely, among others, upon this instrument in regulating banks' credit potential and liquidity, mostly by changing the structure of reserve requirement base and the level of reserve requirement ratio.

Required reserves are also used as an instrument for the implementation of monetary policy in the Czech Republic and Poland, belonging to the Visegrad group of Central European countries, with similar economic conditions, including Hungary and Slovakia. However, these two countries as well as Romania and Bulgaria became members of the European Union but kept their national currencies, unlike e.g. Slovakia, that adopted the euro and became a member of the euro area.

Beside different level, reserve ratio may be either uniform or differentiated, and either applicable to all funds or differing in respect to the funds denomination currency. Reserve maintenance period, interest paid on them to the banks, and penalty paid on the amount of reserves not provided are also completely different, so that the only common characteristic is that required reserves are interest earning in all nine countries, but at a different interest rate.

The summary table below represents the comparison of current conditions for reserve requirements computation made for observed nine countries per six mentioned criteria. It shows that their central banks apply reserve requirements quite differently.

Summary table: Comparison of Reserve Requirements Computation in Observed Nine Countries per Selected Six Criteria

Criterion Country	Reserve Requirments Maintenance Period	Whether RR Ratio Depends on the Funds Denomination Currency or not	Whether RR Ratio is Uniform or Differentiated	RR Ratio in percent	Remune-ration Paid by the CB to Banks in percent	Penalty Rate Paid if a Bank Fails to Fulfill the RR in percent
Macedonia	30 days	Yes	Differentiated	10 domest. currency. 20 d.c.+ FX cl. 13 foreign currency 2.5 savings h-s	2 p.a. in Denars 0.1 p.a. in Euros	15 p.a.
Serbia	30 days	Yes	Differentiated	5 on dinar & 25 on foreign currency reserve base	2.5 p.a.	150 of key policy rate-din & 3m-Euribor +10 foreign currency
Montenegro	7 days	No	Uniform	10	1 p.a. on 25 of RR	12 p.a.
Bosnia and Herzegovina	10 days	No	Differentiated	10 on short - & 7 on long- term funds	0.5 p.a.	5‰ per day
Czech Republic	30 days	No	Uniform	2	0.75 p.a.	1.75 p.a.
Poland	30 days	No	Differentiated	3 on deposits & 0 on repo-operations	3.38	5
Romania	30 days	Yes	Differentiated	15 on leu & 25 on forex denominated reserve base; 0 on non-repayable loans	1.47 p.a. in leu 0.84 p.a. in EUR 0.48p.a. in USD	15.50 p.a. in leu 12.75 p.a. in EUR & USD
Bulgaria	30 days	No	Differentiated	10 on deposit base and 5 on funds attracted from abroad	N/A	N/A
Albania	30 days	No	Uniform	10	Lek/EUR/ USD: 70 of BA/ECB/F ed.Res. base rate	Lek: BA key int. rate + 6 EUR: ECB key int. rate + 2 USD: FR key int. rate + 2

In **Macedonia**, unlike other observed countries, the banks' reserve requirement ratio was raised for liabilities in domestic currency with foreign exchange (FX) clause from 10 percent to 20 percent in July 2009, and for liabilities in foreign currency from 10 percent to 11.5 percent in July 2009 and since then it is 13 percent. At the same time, the reserve requirement in Denars include 23 percent of its amount calculated on foreign currency deposits and other liabilities, while this percentage was 13 percent in June/July 2009 and previously 0 percent. The remuneration of the reserve requirement in Euros was also raised from 0 percent to 0.1 percent in October 2009. On the contrary, the penalty interest rate for the utilization of required reserves or on required reserves not deposited on time was reduced from 19.5 percent to 18.5 percent in February 2010 and again to 15 percent in July 2010.

In March 2010, the differentiated required reserve ratios in **Serbia** were lowered again from 10 percent to 5 percent on the dinar reserve base, and from 45 percent to 25 percent on the foreign currency reserve base. Having reached its peak in the last four years of 31.75 percent in the interval from May to August 2008, the interest rate on non-allocated or incorrectly calculated dinar required reserves has registered a steady decrease since September 2008, when it started to be calculated as 150 percent of the key policy rate. It was 23.63 percent in September and October 2008, 26.63 percent in November and December 2008, 24.75 percent January through March 2009, 21 percent in April and May 2009, 19.5 percent in June 2009, 18 percent July through September 2009, 16.5 percent in October, 15 percent in November, 14.25 percent from December 2009 to February 2010, 13.5 percent in March, 12.75 percent in April and 12 percent ever since May 2010. The penalty interest rate on foreign currency required reserves, calculated at the level of 3-month LIBOR rate plus 10 percent had also a constant but slower decline since September 2008, when it was 14.92 percent. After its lowest level of 10.64 percent in March 2010, it was rising again up to 10.89 percent in July 2010.

In **Montenegro**, in February 2009 the reserve requirement ratio became uniform and was lowered to 11 percent, and again to 10 percent in June 2009, when the CBM lowered also the interest rate paid to the banks (by paying the same interest rate of 1 percent p.a. only on 25 percent instead of 30 percent of the allocated bank reserve requirements) and the interest

rate paid by the banks (failing to return the portion of their reserve requirement deposits used to maintain their daily liquidity on the same day – from 11 percent to 7 percent p.a.), but augmented the percentage of reserve requirements that could be deposited in the form of Government T-bills from 20 percent to 25 percent.

Since October 2008, when the commercial banks due to the deposits withdrawal were under the pressure, the Governing Board of the Central Bank of **Bosnia and Herzegovina** has undertaken several measures in order to strengthen their liquidity. Although it was not jeopardized yet, the first step was the decision on the decrease of the required reserves by 4 percent, reducing the reserve requirement rate from 18 percent to 14 percent in October 2008. Then, in November 2008, the new credit lines withdrawn from abroad by the commercial banks were taken out of the basis for required reserves calculation, in order to stimulate the capital inflow in the local banking sector and give additional encouragement to the credit activities of the commercial banks. From the beginning of 2009, the Central Bank introduced the differentiated required reserves rate, according to which the required reserves rate on the fix term deposits with the maturity over one year was reduced from 14 percent to 10 percent, while the required reserves rate on deposits with the maturity up to one year, which are included in the basis for calculation of the required reserves, remained at 14 percent. Finally, in May 2009, in order to stimulate banks to initiate stronger credit activities in the country, and with special emphasis on encouraging strengthening of economic activities, the Governing Board delivered two new measures, which released to BH banks a part of funds that can be used for financing of real sector. With the first measure, the reserve required rate on the term deposits with the maturity over one year was decreased from 10 percent to 7 percent. With the second measure, governments' deposits designated for the development programs were excluded from the basis for calculation of the required reserves. Both measures were intended to provide higher potentials to the banks for their credit activities, as well as investment in longer period, aiming to support the economic sector development. Since April 2009 interest is calculated and paid on required reserves at the rate of 0.5 percent p.a. (instead of previous 1 percent).

In May 2010, the interest rates in the **Czech Republic** were decreased: minimum reserves remuneration (two-week repo) rate to 0.75 percent, and marginal lending (Lombard) rate to 1.75 percent.

On June 30, 2009, the required reserve ratio was lowered in **Poland** from 3.50 percent to 3.00 percent for all types of deposits, which was aimed in particular at supporting bank lending. The Lombard rate, which achieved its peak of 7.50 percent in June 2008, started its continual decline at the end of November 2008 to 7.25 percent, followed by decreasing to 6.50 percent in December 2008, 5.75 percent in January, 5.50 percent in February, and 5.25 percent in March 2009, while the present rate of 5.00 percent anchored at the end of June 2009. The remuneration interest rate on required reserves has also been declining to the similar decrease of rediscount rate. It achieved its peak of 5.63 percent (as 0.9 of the rediscount rate, being 6.25 percent) in June 2008 and started its continual decline at the end of November 2008 to 5.4 percent (0.9 of 6.00 percent), followed by decreasing to 4.73 percent (0.9 of 5.25 percent) in December 2008, 4.05 percent (0.9 of 4.50 percent) in January, 3.83 percent (0.9 of 4.25 percent) in February, and 3.60 percent (0.9 of 4.00 percent) in March 2009, while the present rate of 3.38 percent (0.9 of 3.75 percent) anchored at the end of June 2009.

Following the pronounced intensification of the global financial turmoil since September 2008, the central bank of **Romania** switched to a net creditor position vis-à-vis the banking system in the last quarter of 2008 when, due to an ongoing decline in excess liquidity across this system, credit institutions' net liquidity (as the difference between excess liquidity and required reserves) turned negative. At the end of October 2008, the NBR lowered the minimum reserve requirement ratio on leu-denominated liabilities of credit institutions from 20 to 18 percent starting with the 24 November – 23 December 2008 maintenance period. This helped easing the market tensions gradually, with short-term interest rates reverting to levels closer to the policy rate, which had a prudent downward adjustment trend during 2009. As required by the specific financial and macroeconomic context, and in order to improve the banks' perception on liquidity conditions on money and foreign exchange markets (helping achieve a relative normalization of longer-term interbank money market

rates, narrow the spread between them and the policy rate, and secure a sustainable revival of lending to the Romanian economy) the central bank actively used the instrument of required reserves throughout 2009. In June, the NBR reduced by three percentage points (from 18 to 15 percent) the minimum required reserve ratio on credit institutions' leu denominated liabilities with residual maturity of up to two years, starting with the 24 July – 23 August 2009 maintenance period. The minimum reserve requirement ratio on credit institutions' foreign currency-denominated liabilities with residual maturities of more than two years (but only those without repayment, transfer, or early buyback clauses) was cut from 40 percent to zero starting with 24 May – 23 June 2009 maintenance period, and that on all other foreign currency-denominated liabilities (with residual maturities of up to two years as well as those with residual maturities over two years but with repayment, transfer, or early buyback clauses) was lowered in June, August, and November, each time by five percentage points (starting with 24 July – 23 August 2009, 24 August – 23 September 2009, and 24 November – 23 December 2009 maintenance periods) to reach 25 percent, which is still effective. Given the constraints arising from the delay in external financing inflows in the last quarter, this measure was aimed at ensuring adequate financing conditions in the local banking system, having to cover a larger portion of the government sector's borrowing needs, while preserving macroeconomic equilibrium. At the same time, this was another step in the process of gradual harmonization of minimum reserve requirement ratios in Romania with ECB standards in the field.

In an attempt, for the same reason, to reduce administrative restrictions on the bank credit growth rates, the central bank of **Bulgaria** decreased as of December 1, 2008, the minimum required reserves on attracted funds of the banks from 12 percent to 10 percent, and as of January 1, 2009, the minimum required reserves on funds attracted by the banks from abroad from 10 percent to 5 percent.

Although the required reserve ratio in **Albania** remained the same in last three years i.e. in the period of global financial crisis – 10 percent of commercial banks' deposits of up to two years, in all three currencies – the lek, euro and US dollar, there were certain adjustments regarding this monetary policy instrument. During 2008, the opportunity of averaging the

required reserve in lek by using 20 percent of it was efficiently exploited by banks, in order to manage unexpected liquidity fluctuations, but for most banks it was not enough for active management of liquidity against expectations during the maintenance period, which would sustain the interbank market activity development. It was the purpose of increasing the space of required reserve usage from 20 percent to 40 percent at the very beginning of 2009. The required reserve remuneration rates were based on the 12-month market rates (Libor and Euribor) until October 2008, when their rise reflected the confidence crisis after the Lehman Brothers' collapse. Upon entry into force of the reviewed regulation on reserve requirement, the foreign exchange required reserve remuneration has been based on respective central banks' basic policy rates. Interest rate cuts applied by the European Central Bank and the Federal Reserve of the USA in 2009 triggered an appropriate decline in the remuneration rate.

12. Conclusion

The analysis of the summary table would result in the following conclusions regarding the present demands for reserve requirements computation. The reserve requirement maintenance period is in the most of the countries observed (seven out of nine) 30 days, being a usual and probably more practical time interval for its calculation than 7 or 10 days. While in Macedonia, Serbia, and Romania the reserve requirement ratio depends on the funds denomination currency, it is not the case in the remaining six economies. Beside these three, the reserve requirement ratio is differentiated in Bosnia and Herzegovina, Poland, and Bulgaria, as well, though according to the type of liabilities, and uniform in Montenegro, Albania, and the Czech Republic.

The reserve requirement ratio is lowest (up to 3 percent) in the Czech Republic (2 percent), Poland (being 0 percent on repo-operations and 3 percent on deposits), and Romania (0 percent – but only for non-repayable loans, and for foreign currency denominated liabilities with residual maturity over two years and without clauses referring to an early withdrawal, repayment or transfer) as well as for the savings houses in Macedonia (2.5 percent). This ratio is quite similar (ranging between 5 percent and 15 percent) in: Montenegro (10 percent), Albania

(10 percent), and Bosnia and Herzegovina (10 percent on short - and 7 percent on long-term funds); Bulgaria (10 percent on deposit base and 5 percent on the funds attracted from abroad); for domestic currency denominated required reserve base in Serbia (5 percent), Macedonia (10 percent), and Romania (15 percent); and for foreign currency liabilities of Macedonian banks (13 percent). It is the highest for foreign currency denominated required reserve base (being 25 percent) both in Serbia and Romania, and for domestic currency funds with FX clause in Macedonia (20 percent).

The remuneration interest rate paid by the central banks for the deposited required reserves to the banks ranges from 0.1 percent p.a. for the deposits in Euros in Macedonia to 3.38 percent in Poland and 3.5 percent on Lek denominated reserves in Albania. The penalty interest rate charged if a bank fails to fulfill the reserve requirements ranges from 1.75 percent p.a. in the Czech Republic to highly rigorous 5‰ per day in Bosnia and Herzegovina as well as 15.50 percent p.a. on leu- and 12.75 percent p.a. on EUR and USD denominated required reserves in Romania. It is interesting that the difference between the remuneration and penalty interest rates is also the lowest in the Czech Republic (being only 1 percent) and the highest in Bosnia and Herzegovina and in Romania, as two countries implementing most tough required reserves policy among the observed nine.

Although all six national banks have conducted different monetary policies in the last three years of global economic and financial crisis, and the reserve requirements parameters observed are quite different for all of them at present, one can note some (at least) similar tendencies in their changes and movements in the period from 2008 to 2010. The reserve requirement base was made narrower, the reserve requirement ratio was lowered, and both the remuneration and penalty interest rates were lowered in Montenegro and in Bosnia and Herzegovina. In Serbia and Poland, the reserve requirement ratio and both the remuneration and penalty interest rates were reduced. The Bank of Albania did not change the required reserve ratio, but increased the space of their usage from 20 percent to 40 percent and lowered the foreign exchange required reserve remuneration rates by changing their anchor rates – instead on the 12-month market rates (Libor and Euribor) they are now based on the European Central Bank and the Federal Reserve basic policy rates.

The reaction of the Czech National Bank (leading the required reserves policy most consistent to the ECB standards) to the crisis was also lowering the remuneration interest rate. The reaction of the central banks of Romania and Bulgaria, still in the process of gradual harmonization of minimum reserve requirement ratios with the ECB standards, was gradual decreasing the reserve requirement ratios. Unlike other eight, the National bank of the Republic of Macedonia has led a completely different and quite a specific policy in respect of the reserve requirements as an instrument of monetary policy. It consisted of an increase of the reserve requirement ratios both for foreign currency denominated liabilities and the liabilities denominated in domestic currency with foreign exchange (FX) clause, as well as a symbolic rise of the remuneration interest rate on the reserve requirements in Euros from 0 percent to 0.1 percent. On the contrary, only the penalty interest rate for the utilization of required reserves or on required reserves not deposited on time was reduced for a quarter.

References

Cecchetti, S. G. *Money, Banking and Financial Markets,* Boston: Irwin, 2005.

Ghatak, S. *Monetary Economics in Developing Countries,* New York: Macmillan, 2007.

Mishkin, F. S. *The Economics of Money, Banking and Financial Markets* (8th Edition), Boston: Addison-Wesley, 2007.

*** www.nbrm.gov.mk

*** www.nbs.rs

*** www.cb-mn.org

*** www.cbbh.ba

*** www.cnb.cz

*** www.nbp.pl

*** www.bnro.ro

*** www.bnb.bg

*** www.bankofalbania.org