# CHAPTER 29.

# FLOW OF FUNDS IN BALKAN BANKS: NARROW BANKING OR NARROW ESCAPE?[1]

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***Abstract**:*

*This chapter studies the flow of funds and financial resilience of the banking industry in the Balkans in the face of the global financial crisis and the second great depression. After presenting the stylized facts in terms of standard variables like deposit potential, credit activity, capital adequacy, NPLs and basic profitability indicators in the last couple of years immediately preceding and following the beginning of the crisis, we go on to review the theoretical paradigms and empirical regularities found in (international) banking crises literature, only to make preliminary evaluation of robustness of the narrow banking model in the Balkans and effectiveness of deposit insurance schemes for the health of banking sectors and overall growth financing, and lastly but not least, in order to establish the likelihood, feasible channels and type of potentially systemic banking crisis occurrence after all in otherwise fairly narrowly organised banking industry of the region.*

***Key words**: banks, banking sector(s), Balkans, credit crunch, banking crisis and runs, narrow banking, stress testing, NPLs, macroeconomic vulnerabilities*

## INTRODUCTION

Back in the 1990s, banking industry of transition countries in Balkans had undergone dramatic changes pushed by foreign banks competition and in accordance with the fashion of the time - privatisation, liberalisation and

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international standardisation [Fang *et alia*, 2011]. Even though political conflicts delayed the transition process of SEE banks, just as institutional decoupling of (mostly politically orchestrated) banks' state owned corporate claims from their net worth accelerated it – at the expense of fairly low sale prices in takeovers of local banks initiated from abroad, with the political pacification of the whole region, fast and robust growth took place in recent pre-crisis history [Backe-Wojcik, 2008]. In parallel with the growth of banking sector in small open economies in transition, the average share of emerging markets' banking sector assets held by foreign banks rose from 21 percent in 1995 to 38 percent in 2005 [Claessens *et alia*, 2008].

The onset of global financial meltdown supplemented by the fall of Lehman Brothers brought about jitters of illiquidity and turned the tables on the international financial markets. However, "Vienna Agreement" pressed the brake pedal on chaotic capital outflows from Balkans banking sectors, and therefore softened the inevitable financial landing that followed. Nevertheless, protracted recession and dark clouds gathering over the common European currency, Eurozone's economy and its national banking sectors reinforced tremendous pressures on economies, businesses and entrepreneurs in the Balkans, thereby threatening the sustainability of both bank sources of finance and their outstanding claims in the region. Balkan banks' capitalization, reserve requirements and alike reservations remain superior to their E (M) U banking counterparts, and yet, fragility of certain macroeconomic relationships could still prove to be a clear if not already present danger for the health of banking system. In contrast, national economies and business standards in the Balkans are at subpar with those achieved and maintained in the E (M) U, hence too narrow a banking may not be the best strategic model for propelling the underlying economies, respectively, and without the sound underlying assets and/or collateral, as we learned only too graphically from the recent subprime crisis, no banking system can ever hope to thrive.

Objectives of this chapter are to recapitulate the average anatomy of banking sectors in the selected countries in the Balkans (Southeast Europe), identify the impact and propagation channels of global financial crisis onto banking industry in the region, review the theoretical paradigms and empirical regularities of (international) banking crises literature and lastly, but not least, establish the likelihood, feasible channels and type of potentially systemic banking crisis in narrowly organised banking of the Balkans.

# ANATOMY OF THE BANKING INDUSTRY IN BALKANS AND PRELIMINARY IMPACT OF THE GLOBAL FINANCIAL CRISIS

Banking industry in Balkans is still in transitional, developing stage. Lack of innovation and overall orientation towards pretty much narrow banking with firm roots in retail business could be attributed to the following traits: shallow and often deliberately underdeveloped financial markets, political, economic and especially corporate credit risk in those countries, high poverty rate, exchange rate volatility, steep or even hyper-inflation episodes and moody international finance of the region as evident in worrisome balance of payments deficits, chronically high public debt record, as well as skittish inbound FDI dynamics.

Track record of successful transition countries indicates that once fundamentally stable, robust and reliable banking sector had been formed, it typically gave way to- and even reinforced development of outer and more sophisticated layers of financial system, namely in segments of insurance companies and their products, pension funds and other institutional investors. That said, despite impressive and accelerated genesis of banking industry in Balkans, with contemporary rules, standards and regulations in place, national banking sectors in the region in comparison to EU let alone US remain underdeveloped, underutilised, unsophisticated and occasionally unstable. Along the same lines, unlike in the EU and the US where -due to new products and new intermediaries propulsion- one can detect a decrease of banking sector market share [Mishkin-Eakins, 2000], transition economies are characterised by domination of the banking sector most obvious through the balance sheet aggregate of banks in the financial system total. Thus, bank loans quickly became widely accepted and thriving funding source in the region, winning predominance in the pre-crisis years due to easily accessible loans through foreign-owned subsidiaries at reasonable rates throughout the boom segment of the credit cycle, which made many companies' business models and some household budgets crucially dependant on such cash infusions. The bitterness of this dependency appeared all too clearly at the beginning of the crisis, when banks abandoned their previous positive loan policy and adopted credit constraints. The direct consequence of this was an apparent credit crunch and a serious slow-down in growth [Valova *et alia*, 2010].

As we know by now, international financial meltdown and global recession that ensued originated from the US real estate bubble and subsequently spread over to other markets and European continent via fancy asset-backed derivative mutants and thanks to worrisome absence of financial transparency of institutional investors' portfolios. First visible signs of financial and economic overhang hit the Balkans with understandable time lag, in terms of deteriorating liquidity and slowdown of reforms in banking and financial sector [Unicredit, 2011]. Even

though global financial crisis symptoms became apparent in the Balkans banking industry no sooner than the end of 2008 early 2009, cross-border loans and portfolio investment went up in smoke almost immediately, primarily in order to provide for losses incurred elsewhere, and arguably only in late 2010 and beyond shrinkage of Balkan banks' balance sheets could be linked with the proverbial «flight to safety» and firesale considerations. Interest rate hikes, i.e. interest spread over Balkan central banks' reference rates applied to yield the commercial cost of lending by the Balkan banking industry (as well as for interbank borrowing), were among the very first messengers of international financial contagion reaching the shores of the peninsula. Commercial banks in the Balkans attempted to mitigate the negative consequences of the first wave of the crisis by more restrictive credit analysis and more cautious loan policy, stricter classification of loans outstanding, rising capital adequacy ratios and much more careful daily and overall liquidity management throughout 2009.

Credit crunch is usually defined as a sudden sharp reduction in the availability of money or credit from banks and other lenders. However, identifying the macroeconomic effects of credit supply disruptions is difficult because many of the same factors that influence the supply of bank loans can also affect the demand for credit [Bassett *et alia*, 2012]. Therefore, we shall take a bit closer look at the development anatomy of the selected national banking sectors in Balkans, before we proceed to the theory of banking crises and analyse feasible relevance and applicability of that theory to the contemporary reality of fund flows and systemic risk management in the Balkan banking industry.

In regard to the number of banks and their share in total assets (see Table 1), roughly 70% of Balkans banking assets is held by foreign-owned banks operating across the region [Barjaktarovic-Paunovic, 2011], with the largest number of foreign subsidiaries in Romania (42) and smallest in Macedonia (18). Most of the foreign banks are based in neighbouring European countries, notably in Austria, Italy, Greece, and in some of the countries originating from France, Russia or Turkey. In Serbia and Croatia, there is still a distinct presence of domestic banks among the top five. Notwithstanding the national specificities, thus far, the crisis hasn’t dramatically altered either the number of banks or the ownership structure in the banking sectors of the region [Raiffeisen, 2012].

Similarly, important and often consulted indicators are total committed assets as well as capital adequacy ratios of banks at hand. After impressive growth during the credit boom years up until early 2007, several banking sectors in Balkans reached as much as 90% share in the aggregate financial portfolios of their respective countries, with the peak in assets growth in 2006, after which most banking sectors’ assets continue to grow, albeit at a slower pace. By 2009, asset

dynamics becomes stagnant even in Romania, Bulgaria and Hungary (whose assets robustly grew in spite of the global financial crisis up until 2009), while Montenegro's and Bosnia and Herzegovina's banking industry exhibits a marked shrinkage of their aggregated balance sheets. Interestingly, until the end of 2009 all banking sectors in the Balkans kept their assets-to-GDP ratios above 50%, while Hungarian, Bulgarian and Croatian banking sectors through that first seriously recessionary year for the region maintained their aggregate assets 30%, 14% and 7% above their annual GDPs, respectively. On the other hand, the lowest asset-to-GDP ratios in 2009 were recorded in Romanian, Serbian and Bosnian banking sectors (74%, 82% and 86%, respectively). In terms of capital adequacy ratios (see Tables 2 and 3), the biggest ratio in the period considered had been recorded in Serbia 23.6% in 2008, and the lowest in Montenegro 8%, back in 2007. By and large, therefore, banking industry in Balkans has much higher capital-adequacy ratios, i.e. lower leverage than recorded in the E (M) U or required by the incoming Basel 3 regulations. Bar far the highest among the impressive capital adequacy ratios of Balkan banking industry have been recorded in Serbia, Bosnia and Herzegovina as well as Croatia.

In terms of credit/deposit potential (see Table 4), once the financial bust kicked in, countries with the biggest and the lowest credit growth in the boom part of the cycle recorded the largest drop in available loan funds from 2009 onwards (Hungary and Montenegro, respectively). Montenegro, Serbia and Bosnia and Herzegovina had faced stagnation of their deposit potential in 2008, while others managed to maintain positive but slower trend. The year 2009 marked a mild recovery in deposit potential of Balkans banking industry (with the exception of Montenegro which didn't recover), whereas Serbia even managed to achieve a two digit yearly growth of deposit potential (14.2%). According to data shown in Table 5, from 2005-2009 loans outstanding-to-GDP ratios of all analysed banking sectors had gradually risen, never falling below 30% (apart from very briefly in Serbia and Romania at the beginning of the period). Greatest rise of loan-to-GDP ratio was documented in Bulgaria (79%) and Croatia (78%), arguably propped up by the recession itself, but also by strengthened confidence in pushed up guarantees under deposit insurance schemes, as well as by rapid decline of other sources of finance (Bulgaria and Croatia suffered the greatest fall in FDI inflows in 2009, in both absolute and relative terms). However, these are the countries whose depositors exhibited the greatest confidence in their banking sectors by increasing the amount of deposits as a % of their GDP (65% and 76% respectively). Nevertheless, towards the end of 2008 many of the Balkan countries experienced an absolute decline in credit lending, which deteriorated further in the beginning of 2009. In the end of 2009 in almost all Balkan countries credit lending was brought to a temporary hault [Valova *et alia,* 2010], which took better part of 2010 as well. In the second half of 2010 and through 2011,

deposit potential and credit activity picked up, albeit to a pretty diverse extent across the selected banking sectors in the region (see Figure 2). On a top of it, predominantly corporate deposit surge in several Balkan banking sectors probably represents a double-edged sword, because it reflects domestic corporate reluctance to invest (instead of which they deposit excess cash reserves) which will diminish economic growth and overall repayment capacities of those economies in the nearer future [Raiffeisen, 2012]. One thing is for sure: 2010 and 2011 credit growth recovery after the sharp drop in 2009 took place at rates well below those recorded in the Balkans banking sectors before the crisis [The World Bank, 2011]. The expected lower availability of external financing suggests that deposits will retain the attractiveness they gained in the Balkans over the last decade or so [Raiffeisen, 2011]. Currently, loan growth is losing momentum in the Balkans, but still remains somewhat above the average nominal growth of economic activity (see Table 5) in countries at hand, respectively [Raiffeisen, 2012].

Be that as it may, the global financial crisis and especially Eurozone's banks' exposure to sky-rocketing sovereign debt have more recently diverted attention to likelihood and ability of financial intermediaries to sustain and weather sudden losses or capital outflows and alike liquidity shocks, quite regardless of current satisfactory standing or the mild credit growth recovery. Imperative of improving risk management practices and developing new methodologies of early warning systems has resulted in mandatory deployment of the so-called stress-testing under Basel 2 (and even more so in the pipeline of Basel 3) standards. Stress testing quickly became a preferred toolset for real-time simulations of systemically disastrous scenarios and detection of robustness or lack thereof of banks' balance sheets and their operating procedures. Table 6 reminds us that stress-testing was implemented relatively late in the game across the Balkans, while circumstantial evidence indicates that utilisation of state of the art techniques to that end in some (mostly domestic) banks is still fairly scarce. Quarterly stress-testing is being carried out in Bosnia and Herzegovina, Bulgaria, Macedonia and Montenegro, semi-annual in Croatia, Hungary and Romania, while Serbia legally sticks to the once a year rule [Malecky-Podpiera, 2010]. With the notable exceptions of Macedonia and Serbia, before the crisis, despite robust credit growth conservative banking practices and traditional products secured that NPLs across the region remained under 6,3% (see Table 7). Initially, more frequent stress-testing even in such a well-capitalised banking sectors proved to be highly desirable, since with the escalation of global financial contagion in Balkans there was a rapid increase in non-performing loans (henceforth NPLs) in virtually all of the countries from the region [The World Bank, 2011]. Understandably, in the run-up to the crisis a high degree of dollarization, elevated external debt, and robust credit growth tested the banks’ capacities to underwrite

loans prudently and maintain adequate capital and liquidity buffers [Cocozza *et alia*, 2011]. By the mid 2011 several national banking sectors stabilized their NPL trends, whereas Hungary, Montenegro, Romania and Serbia banking sectors continued to struggle, groggy from the second wave of Eurozone crisis, characterized by persistent recession, illiquid corporate sector, arrears and flight to quality withdrawals by households and overall panic-striking cracks visible in banking systems and financial markets of the E (M) U member countries.

Nevertheless, with a very few notable exceptions (e.g. Agrobanka), banks in the region remained liquid while their profitability that ranges from reasonable to above European average even (see Figure 4), mostly utilising retail maintenance (deposit-related) fees, with just a few loss-making outliers (e.g. Erste bank). Be that as it may, one caveat seems appropriate: in coping with the NPLs as well as capital flow reversals and overall recessionary trends, many banking sectors in the region (and / or their national governments) grew slightly worrying financing gaps: should crisis go on worsening for another while, they would most probably require either the IMF involvement, heftier remittances injection, or a more committed concerted lending effort by their parent banks from overseas.

## THEORETICAL PARADIGMS AND EMPIRICAL REGULARITIES FROM THE (INTERNATIONAL) BANKING CRISES LITERATURE

Flashing back into the 20th century, from the break-up of Bretton-Woods system of fixed exchange rates onwards, and along with the liberalisation of international capital movement, banking crises as a subset of financial crises have become a globally spread out phenomenon [Mishkin, 1997]. Thus, in the 1980-1998 period, 133 countries or almost ¾ of IMF members experienced serious banking sector disruptions [Malovic, 2006]. In the US only, during 1980-1996 interval more than 5000 banks went bankrupt, which was equivalent to 920 billion $ of losses plus 192 billion $ restructuring injections where deemed possible. In developing and transition countries aggregate losses and restructuring costs of banking crises in the last two decades of 20th century amount to 250 billion $ [Barth *et alia*, 1998]. In relative terms, i.e. as a fraction of their respective GDPs, the hardest losses among the industrial countries hit Spain (17%, during 1977-1985 crisis), followed by Finland (8%, 1991-1993), Sweden (6%, 1991), Norway (4%, 1987-1989) [Goldstein-Turner, 1996]. Once again, developing and small open economies in transition experienced with stronger contagion elements and more drastic spillover effects: Caprio and Klingebiel (1997) found that more than 10 countries sustained losses of over 10% of GDP, while Argentina, Chile and Ivory Coast over 25%, coupled with extreme balance of payments disequilibria and external debt spiralling out of control.

Next, until very recently, new millennium brought about great moderation in terms of systemic banking sector crisis too, and a widespread belief -that at least for the advanced economies, if not for the entire world after the fall of the Berlin wall, destabilizing, systemic international banking crises became a relic of the past- took hold [Reinhart-Rogoff, 2009]. Once a perfect storm mixture of the global financial meltdown and the second great depression engulfed primarily the developed world, we had quite another thing coming. In discerning why recessions associated with financial contagion and international banking crises are so costly, Reinhart and Rogoff (2009, p.145) find that banking crises are more often an amplification mechanism rather than underlying cause of depression, since "(…) a reversal of fortunes in output growth leads to a string of defaults on bank loans, forcing a pullback in other bank lending, which leads to further output falls and repayment problems, and so on."

However, although both developed and developing countries' banking sectors may be equally susceptible to banking crises nowadays, that may still be for different reasons, through different channels and of different making, hence more detailed analysis of theoretical paradigms as well as empirical regularities from the (international) banking crises literature may be in order. Malovic (2006) identified four fundamental subsets of banking crises determinants: 1) macroeconomic instability, 2) too swift a liberalisation of international capital flows, 3) microeconomic weaknesses of domestic banking and bad risk management and 4) flawed legal, accounting and regulatory framework for banking sector supervision.

In addition, macroeconomic instability can stem from external and/or domestic volatility. External vulnerability of banks is typically dominated by the trio: terms of trade dynamic, real effective exchange rate dynamics and world (reference) interest rates. It goes without saying that abrupt and non-negligible deterioration in the terms of trade presents formidable obstacles for banks' debtors to service their loans back to their bank on time. Caprio and Klingebiel (1997) found that 75% of their sample (sample is made of 86 countries that experienced banking crises from late 1970s to 1996) sustained at least 10% deterioration in the terms of trade a year ahead of the banking crisis (the average terms of trade worsening in the subsample was 17%). This vulnerability channel seems to be especially important for countries with high goods- and geographical concentration of exports [Goldstein-Turner, 1996]. When it comes to exchange rate effect, FX risk management endangers banks directly via balance sheet effects of the foreign currency denominated subset of assets and liabilities, and indirectly through exposure and subsequently adverse repayment capacity consequences for their debtors. However, empirical results tend to be more mixed than immediately suspected. Namely, Eichengreen and Rose (2001), for instance, failed to identify

any statistically significant causality between different exchange rate regimes and incidents of banking crises. Nonetheless, that may well be due to the fact that often times indeed, "(…) country's declared exchange rate arrangement is a poor proxy for the actual stability of its exchange rate [Eichengreen-Rose, 2001, p.192]. Hence Mendis (2002), after applying a logit model to panel data on banking crises over 1970-1992 horizon, econometrically proves that banking sectors of countries with flexible exchange rate regimes markedly increase their resistance to external shocks and probability to fall pray of systemic banking crisis. And yet, within the realm of contemporarily predominant floating exchange rate regimes, growing body of literature underscores original sin arguments of currency mismatch for both the banks and their clients a la G. Calvo and R. Hausmann type of depreciation arguments [Razin-Sadka, 2001], whereas Kaminsky and Reinhart (2001), and Von Hagen and Ho (2003), for instance, indicate real appreciation of national currency as a prime suspect and standard early warning indicator of banking crises. The third external determinant (among the macroeconomic instability subset) of banking crises is dynamics of leading reference interest rates (e.g. LIBOR, EURIBOR, Prime Rate etc.), because interest rates at chief international financial markets not only reflect banks' and/or large corporations' borrowing costs, but also indirectly reflect relative attractiveness of investing in emerging markets. As a matter of fact, empirical studies suggest that reference rate movements can explain between ½ and 1/3 of sudden stops in capital inflows in small open developing economies throughout 1990s [Calvo, 1998*], [Calvo-Reinhart, 2000], [Eichengreen-Rose, 2001]. As to domestic sources of macroeconomic instability, oscillation in real economic activity (due to ill-conceived or irresponsible fiscal & monetary mix and labour market distortions) and non-anticipated inflation are the usual suspects. However, the aforementioned macroeconomic- corollaries-of-credit-crunch caveat is still binding here: although Goldstein and Turner (1996) give dozens of historical examples of how bank insolvencies, bankruptcies and domino-illiquidity give rise to negative externalities in the real economy, Gorton (1988) empirically demonstrated that opposite is also true – namely that recessions give way to banking crises. Unanticipated inflation effect exhibits somewhat different impact on banking sectors in developed versus developing countries. In low inflation industrial countries, most of credit contracts are characterized by long duration which is why unanticipated disinflation (or deflation) bites into the net worth of corporate sector, while in high and volatile inflation developing countries credit contracts are typically characterized by variable (indexed) interest rates and short durations, thereby exerting non-negative or even positive effect of unanticipated deflation on net worth of corporate sector and thus their national banking sectors [Mishkin, 1997]. Additionally, political unrest, irresponsible monetary and supervisory policies have also fairly predictable effect on incidence of banking crises. In reviewing several rigorous, comprehensive and influential econometric

studies, Malovic (2006) corroborates that low and staggering real rate of growth, high and volatile inflation as well as high *ex post* (or low *ex ante*) interest rates are main determinants and stable indicators of banking crises. Interestingly enough, Eichengreen's and Rose's (2001, p.190) econometric results point with some statistical significance at budget surpluses as being predecessors of banking crises!

The second subset of banking crises determinants, capital flow bonanzas promted by too hasty financial liberalisation, could be traced in theoretical contribution of H. Minsky and C. Kindleberger, wherein crisis are caused by imported deposit and inescapably credit euphoria fed by the upswing of the credit cycle [Kindleberger, 2000], [Kyotaki-Moore, 2004]. As soon as business and credit cycle swings down, either financial asset bubble („overcapacity bubble") becomes apparent and subsequently bursts, or due to exogenous capital flow reversals, bank illiquidity and runs kick in [Reinhart-Rogoff, 2009]. Speculative bubble, then, could stem either from unrealistically inflated real estate prices [Ventura, 2002], stock market exuberance [Barbarino-Jovanovic, 2003], systematic overvaluation of national currency or the currency domestic one is pegged against [Corsseti-Pesenti-Roubini, 1999], overexposure of banking and/or corporate sector [Dornbusch, 2003], or exploding external sovereign debt due to (in)formal government guarantees extended to local provinces and influential state-owned enterprises [Malovic, 2006]. These boom-bust cycles are very well explored in the banking crisis literature, trouble is, in practice it is very hard to differentiate between triple A and exceedingly risky borrowers during the upswing, just as months and years of building up problematic Ponzi-like balance sheet positions could decisively melt in a single day of a bust.

Microeconomic weaknesses of domestic banking and bad risk management hazardously reckless overexposure to single borrowers, connected lending, excessive maturity, currency and liquidity mismatches, high operational risk, prepayment risk as well as sloppy credit screening practice. Moreover, adverse selection proverbially happens in times of credit expansion, when banks do not have enough time, clear judgement (either fuelled by profit making greed or cornered by aggressive competition claiming its market share), personnel, nor information need for quick and proper credit analysis [Malovic, 2006]. However, it goes without saying that adverse loan applicants' selection could and does take place during credit crunches as well [*Ibidem*]. Stylised facts depicting banking crises often enough indicates negative externalities arising from swiftly deteriorating balance sheets of the debtors to those of the banks. Following a negative shock originated anywhere across the asset markets, rising interest rates bite into firms' and households' balance sheets thereby crunching the asset value and lifting the bankruptcy rate. This obviously has a negative impact on banks'

equity value, artificially increases already stretched out leverage, produces a fall in lending activity and further increases the interest spreads [Reichlin, 2004]. Both Reichlin (2004) and Reinhart and Rogoff (2009) underline that such a negative capital spillover (effectively, a credit crunch and a near collapse of the credit channel) amidst recessions and banking crises is likely to be particularly acute for small and medium sized borrowers without established name recognition (and therefore less access to special tailor-made deals or bond and equity markets), since they disproportionately rely on bank lending which withdraws due to information asymmetry and SMEs' falling collateral value in secondary markets. Moreover, in such circumstances banks easily fall pray to moral hazard, either by management of big companies betting on their well-known name and lucky star (e.g. WorldCom) or by rogue traders on their own payroll (e.g. Barings bank), trying to cover for the mounting losses from bad investment made in the credit-expansionary past [Malovic, 2006].

Flawed legal, accounting and overall regulatory framework for bank supervision represents the last subset of banking crises determinants. This rather diverse set of determinants engulfs everything from degree of centralisation of the credit market, openness to international banking, through implementation and honouring of Basel prudential supervision regulations, deployment of IFRS and transparency of gathering and distributing financial information to central banks & national deposit insurance agencies or lack thereof, to the bad corporate governance in banks [EBRD-IFC, 2012] and coordination of banking sectors with the entire financial system by and large. Similarly, market participants themselves need better information on aggregate positions and linkages to appropriately monitor and price risks they expose themselves to. On-going initiatives that ought to help close data gaps include the G20 Data Gaps Initiative, which recommends the collection of consistent bank level data for joint analyses and enhancements to existing sets of statistics [Cerruti *et alia*, 2012]. Either way, there is by now an empirical consensus that -even aided with most standardized data bases- banks behave differently under different institutional settings [Haselmann-Wachtel, 2010]. Thus, magic uni-sized solutions may not exist, but thought-trough international standards and the rule of law undoubtedly help banking sectors to remain solvent and stable in their crucially important financial intermediation function. As somebody once said, *Stability may not be everything, but without stability, everything is nothing.*

Precisely while trying to honour prescriptions and avoid pitfalls of this last section, Balkan banking industry more or less invariably introduced fairly narrow banking as its business model. In the next section, we shall try to evaluate to what extent that was wise or sufficient to shield the banking sectors in the region from

the long-lasting recession and growing financial peril, pretty much imported from overseas.

## LIKELIHOOD AND FEASIBLE CHANNELS OF SYSTEMIC BANKING CRISIS IN THE BALKANS

Against the background of costly state verification and information asymmetry characteristic of bankers [Freixas-Rochet, 2008], as well as panic-stricken fire sales of banks' assets they may be forced to by impatient herd behaviour of depositors [Reinhart-Rogoff, 2009], there may be some localised bank runs in the Balkans after all. In the end of the day, Freixas and Rochet (2008, pp.220-222) have demonstrated that fractional reserve banking system leads to an optimal allocation of resources only if patient consumers do not withdraw their deposits too soon, either due to opportunity costs and publicly unobservable liquidity preferences, or due to less than perfect coordination between depositors and multiplicity of equilibria under which a bad equilibrium behaves in accordance with the so-called Dornbush's law. In an attempt to overcome those instability problems Balkan banking sectors and their respective central banks (aided by political impediments to any serious financial market development in most of the countries under observation) followed a version of nilly-willy narrow banking principles. Narrow banking refers to a set of regulatory constraints on commercial banks' investment opportunities and lending rules that would make them systemic risk-free in almost any possible event [Freixas-Rochet, 2008]. While aware of the fact that there are many definitions of narrow banking out there [Kobayakawa-Nakamura, 2000], [Kay, 2009], it is suffice for the purposes of this paper to realise that there's no evidence of excessive maturity transformation in Balkan banking industry, impressive reservations are earmarked for covering potentially contaminated assets, financial leverage is relatively modest, domestic currency loans are typically indexed to world currency dynamics (euro, swiss franc, dollar), and there's no drastic investment of deposit potential into shares, derivatives or alike risky assets. Furthermore, the overall level of dependence of -for example- ex Yugoslav nations outside E(M)U and of Albania on foreign lending is less than in EU10 banking sectors, because as a matter of fact most Balkan banks are increasingly reliant on domestic savings and demand deposit base [World Bank, 2011], [Raiffeisen, 2012]. However, considering that not even time deposits qualify for certain hard core sources any more, Balkan banks could be left exposed if in such crisis (abnormal) times surges in deposit withdrawals outweigh the amount of liquidity kept in the till or short term, fungible and risk free securities.

Nonetheless, chances of such bank runs happening in Balkans are currently rather slim, owing to the fact that there's plenty of evidence to indicate that Balkan equivalent of „flight to quality“boils down to cash-hoarding tendencies throughout 2010-2012 time span. Moreover, although contrary to the recent commentaries, the extended Vienna Gentlemen's Agreement (also known as the European Banks' Coordination Initiative) thus far does not represent a credible (international) lender of last resort, since the so-called Vienna Plus initiative didn't slow down „coordinated deleveraging“ but in fact tacitly gave way to joint IFI public sector involvement [EBRD, 2012], resolute and preemptive raising of the deposit insurance bar in national banking sectors of the Balkans region made large scale runs and bank busts an additionally unlikely event. Even though credible deposit insurance schemes are capable of preventing deposit withdrawals en masse, i.e. along the lines of the Diamond-Dybvig script [Malovic, 2006], their model does not incorporate the fact that absent effective and efficient regulation (which, by the way, Kay (2009) strictly distinguishes from supervision), deposit insurance exhibits a tendency to induce banks to take excessive risk and engage in moral hazard kind of behaviour [Reinhart-Rogoff, 2009]. In our opinion, therein lies a profound advantage that Balkan strategy of narrow banking has had over the rest of Europe in the first waves of crises, anyway.

Therefore, for the time being at least, likelihood for the outburst of a systemic banking crisis in the Balkans is rather low still. That is not to say that individual banks from the region cannot ever file for bankruptcy, nor that dark clouds aren’t gathering over Europe and hence, Balkans as well. Funding risks are returning to the region while dollarization and FX related credit risks never really left, former primarily driven by adverse developments in the Eurozone, latter due to NPL overhang and vanishing economic growth [The World Bank, 2011], [Cocozza *et alia*, 2011]. Although Balkan banking industry showed impressive resilience and (imposed) increase in self-sufficiency, direct cross-border lending remains a non-negligible source of funding for the corporate sector, comprising around 15% of GDP. Deteriorating competitiveness, rising current account deficits and the rollover of maturing debt gave rise to large external financing needs, which in turn heighten these countries’ exposures to sudden stops and contagion [Cocozza *et alia*, 2011]. Vogel and Winkler (2011) use relatively simple econometric methodology to show that significant foreign bank presence did manage to initially stabilise cross-border loan flows but failed to stabilise domestic lending. Arguably, and especially since authors themselves admit that the two are closely linked together, this is just another way of saying that national banking sectors in the Balkans didn’t look upon the Vienna Agreement as longer term reliable or even firmly binding (there was very little new lending, cross border exposure was temporarily maintained and deleveraging was still going on but in a coordinated manner). Needless to say, that initially soft landing in terms of cross border loans

only eased up the pain from abrupt, almost overnight, retreat of portfolio investment and the mostly hard landing of FDI inflows. If that financing gap, particularly gasping in cases of Serbia and Bosnia, were not to be closed by either the IMF and/or diaspora involvement, any further deterioration of- or deleveraging pressures on locally represented foreign banks' Western European headquarters could result in steeper rise of NPLs in the region. If, to the contrary, Eurozone crisis finally started to subside, there is empirical evidence that international banks could be more inclined to lend to countries in geographic proximity and with foreign subsidiaries which established a deep local presence [De Haas-Van Horen, 2011]. That is again hypothetical good news for the region.

*Summa summarum*, out of four subsets of banking crises determinants identified in the literature, the latter two aren't likely to be culprits or spreading channels of potentially systemic banking crisis in the Balkans. In fact, microeconomic management and prudential regulation could for its conservatism almost be proclaimed to be the strengths of the banking industry in the region. The former two subsets of determinants and contagion channels, namely macroeconomic volatility and to the extent capital flow bonanzas with now inevitable capital flow reversal bear relevance for the immediate outlook of the Balkan banking industry

In regards to sudden stop phenomenon, it is now too late to warn about it and reasonably obvious how it works. Malovic (2008), for instance, warned about it ahead of time *in extenso*. In terms of the macroeconomic volatility, we would like to point at several aspects pertinent to Balkan banking industry's constellation. First of all, although bank runs could be in principle averted by large and credible lender of last resort or deposit insurance scheme, domestic (especially populist) politicians may end up being more sympathetic towards bailing out domestic depositors and stake holders [Razin-Sadka, 2001]. In spite of finding that very unlikely, trouble is that if foreign creditors (direct through cross border loans or indirect through foreign banks) believed that to be a clear and present danger, in a sample of 42 episodes of banking crises Laeven and Valencia (2008) find that banks' foreign liabilities appear virtually irresponsive to blanket guarantees! In that case, banking sectors with less foreign creditors might fare better than those with more foreign exposure. Second, banking sectors operating under the fixed or quasi-floating exchange rate may found themselves more vulnerable to unpredictable FX volatility and economic and balance sheet exposures to foreign exchange risk. On the other hand, continuous but persistent sliding of exchange rate in an original sin environment admittedly also compounds maturity mismatch with currency mismatch of both banks' and their debtors' balance sheets. With short-term liabilities of banks denominated in euros (foreign currency savings etc.), and long-term assets (banks' loans) or, for that matter, banks' obligants' assets cum paychecks denominated in domestic currency, represent a pretty

combustible investment position. If contaminated claims forced liquidity problems and provoke some foreign currency deposit withdrawals that would certainly increase the pressures on already shaken value of national currency [Razin-Sadka, 2001]. Fine-tuned domestic macro-policy mix is required to avoid and nip into a bud the aforementioned self-fulfilling features of banking crises.

Needless to say, more complex engagement in such controversies of open-economy macroeconomics for small import-dependent countries indebted in foreign currency is beyond the scope of this chapter. Their governments are often hamstrung by conflicting loyalties to growth imperative versus fiscal consolidation, stability of narrowly constructed banking system and external competitiveness, economy's solvency and true flexibility of exchange rate etc.

Finally, following Wallace (1996), one might deduce that consciously committing an economy to the limits of narrow banking and conservatism of financial underdevelopment, indeed initially help insulate your banking sector from the recklessness of modern derivative, securitized finance, but eventually makes banking industry dependent of external liquidity injections and sort of deprives you from ability to finance economic growth and your own repayment capacity through less orthodox assets and liability relationships.

## CONCLUSION

Motivation of this chapter has been to recapitulate the average anatomy of banking sectors in the selected countries in the Balkans (Southeast Europe), identify the impact and propagation channels of global financial crisis onto banking industry in the region, review the theoretical paradigms and empirical regularities of (international) banking crises literature and lastly, but not least, establish the likelihood, feasible channels and type of potentially systemic banking crisis in narrowly organised banking of the Balkans.

To that end, we analysed the chief variables like deposit potential, credit activity, capital adequacy, NPLs and basic profitability indicators in the last couple of years immediately preceding and following the beginning of the crisis, we concluded that despite ever harsher impact of the global financial meltdown and ensuing recession on the region, Balkan banking industry proved to be significantly better capitalized, much more resilient and reasonably flexible as compared with the Eurozone's banking sectors in weathering the first two waves of this modern economic nemesis.

At the time of this writing, Western European banking sectors are narrowly escaping systemic banking crises, while Balkan banking industry, shielded by its relatively conservative narrow banking model and underdeveloped financial markets, still stands firm albeit simultaneously stretched to the limits of the adopted banking model which is unable to provide organic growth of (securitized) credit potential or productively deploy some of its currently tied up liquidity.

Therefore, for the time being at least, likelihood for the outburst of a systemic banking crisis in the Balkans is rather low still. That is not to say that individual banks from the region cannot ever file for bankruptcy, nor that dark clouds aren't gathering over Europe and hence, Balkans as well. Both external and entirely domestic macroeconomic vulnerabilities very much lurk around the incoming bends, but their hypothetical impact on banking sectors of the region still remains but only one piece of the puzzle. Bigger picture is at stake here: within it, tackling the narrow banking model which took roots in the Balkans may not even be at the very top of the policy agenda.

## APPENDIX

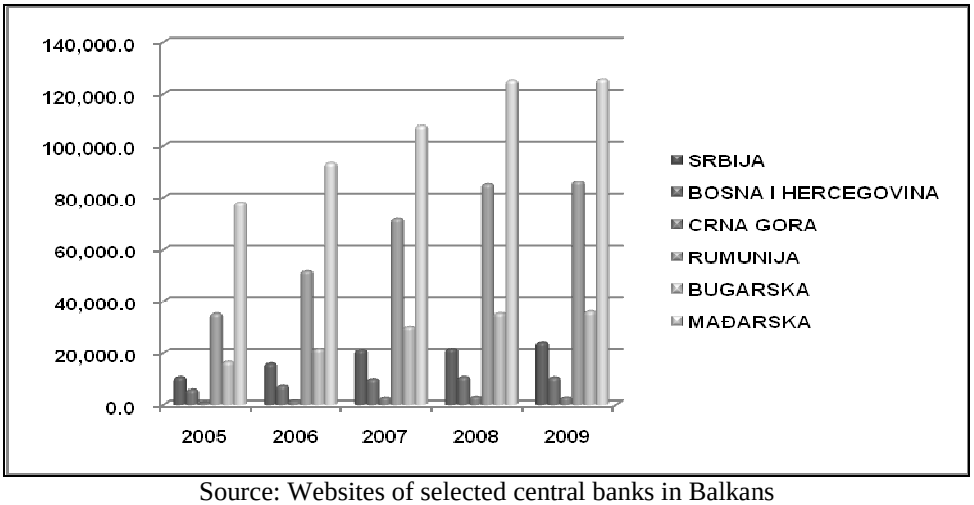
*Table 1: Number of banks and domestic-to-foreign banks' assets ratio*

| | **2005** | | **2008** | | **2009** | | **2010** | |
|---|---|---|---|---|---|---|---|---|
| | **#of banks** | **Share in asssets (%)** | **#of banks** | **Share in asssets (%)** | **#of banks** | **Share in asssets (%)** | **#of banks** | **Share in asssets (%)** |
| **Serbia** | | | | | | | | |
| *Domestic* | 23 | N.A | 14 | N.A | 14 | 25.7 | 12 | 26.0 |
| *Foreign* | 17 | N.A | 20 | N.A | 20 | 74.3 | 21 | 74.0 |
| *Total* | 40 | N.A | 34 | N.A | 34 | 100.0 | 33 | 100.0 |
| **Croatia** | | | | | | | | |
| *Domestic* | 20 | 8.7 | 18 | 9.4 | 19 | 9.1 | 19 | N.A |
| *Foreign* | 14 | 91.3 | 16 | 90.6 | 15 | 90.9 | 15 | N.A |
| *Total* | 34 | 100.0 | 34 | 100.0 | 34 | 100.0 | 34 | N.A |
| **Bosnia and Herzegovina** | | | | | | | | |
| *Domestic* | 12 | N.A | 8 | 5.0 | 8 | 5.5 | 8 | N.A |
| *Foreign* | 12 | N.A | 12 | 95.0 | 12 | 94.5 | 11 | N.A |
| *Total* | 24 | N.A | 20 | 100.0 | 20 | 100.0 | 19 | N.A |
| **Macedonia** | | | | | | | | |
| *Domestic* | 12 | 56.3 | 4 | 41.0 | 4 | 39.0 | N.A | N.A |
| *Foreign* | 8 | 43.7 | 14 | 59.0 | 14 | 61.0 | N.A | N.A |
| *Total* | 20 | 100.0 | 18 | 100.0 | 18 | 100.0 | N.A | N.A |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Romania** | | | | | | | | |
| *Domestic* | 10 | 37.8 | 6 | 11.8 | 7 | 14.7 | 7 | 13.9 |
| *Foreign* | 30 | 62.2 | 37 | 88.2 | 35 | 85.3 | 35 | 86.1 |
| *Total* | 40 | 100.0 | 43 | 100.0 | 42 | 100.0 | 42 | 100.0 |

*Source: Websites of selected central banks in Balkans*

*Figure 1: Assets dynamics of selected banking sectors in Balkans (in mill. €)*




Source: Websites of selected central banks in Balkans

*Table 2: Structure of liabilities of selected banking sectors in Balkans, (in %)*

| | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** |
|---|---|---|---|---|---|---|
| **Serbia** | | | | | | |
| Liabilities | 83.8 | 81.5 | 79.0 | 76.4 | 79.3 | 80.3 |
| Capital | 16.2 | 18.5 | 21.0 | 23.6 | 20.7 | 19.7 |
| **Montenegro** | | | | | | |
| Liabilities | 84.7 | 89.6 | 92.0 | 91.6 | 89.0 | 89.4 |
| Capital | 15.3 | 10.4 | 8.0 | 8.4 | 11.0 | 10.6 |
| **Macedonia** | | | | | | |
| Liabilities | 84.1 | 86.6 | 88.6 | 88.5 | 88.6 | n.a |
| Capital | 15.9 | 13.4 | 11.4 | 11.5 | 11.4 | n.a |
| **Romania** | | | | | | |
| Liabilities | 87.8 | 88.2 | 90.1 | 89.3 | 87.9 | 86.3 |
| Capital | 12.2 | 11.8 | 9.9 | 10.7 | 12.1 | 13.7 |

*Source: Websites of selected central banks in Balkans*

*Table 3: Cooke ratios (shareholders stake in risk weighted assets, in %) in the Balkans*

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|---|
| Serbia | 26,0 | 24,7 | 27,9 | 21,9 | 21,3 | 19,9 | 19,7 |
| BiH | 17,8 | 17,7 | 17,1 | 16,3 | 16,1 | 18,8 | 19,2 |
| Croatia | 15,2 | 14,4 | 16,9 | 15,4 | 16,6 | 18,8 | 19,2 |
| Macedonia | 21,3 | 18,3 | 17,0 | 16,2 | 16,4 | 16,1 | 16,8 |
| Montenegro | 27,9 | 21,3 | 17,1 | 15,0 | 15,8 | 15,9 | n.a |
| Hungary | n.a | n.a | 10,0 | 11,1 | 13,1 | 13,3 | 13,5 |
| Romania | n.a | n.a | 13,8 | 13,8 | 14,7 | 15,0 | 14,5 |

*Source: Cocozza et alia (2011)*

*Table 4: Credit and deposit potential of selected banking sectors in Balkans (in mill. €)*

| | Credit potential | | | | | Deposit potential | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2005 | 2006 | 2007 | 2008 | 2009 | 2005 | 2006 | 2007 | 2008 | 2009 |
| Serbia | 5,769 | 7,281 | 10,098 | 12,262 | 13,139 | 4,656 | 7,085 | 10,301 | 10,019 | 11,440 |
| Croatia | 21,409 | 26,353 | 30,320 | 34,499 | 35,745 | 23,027 | 27,319 | 31,454 | 33,412 | 34,742 |
| BiH | 3,875 | 4,759 | 6,110 | 7,442 | 7,209 | 3,516 | 4,499 | 6,187 | 6,104 | 6,232 |
| Monte-negro | 375 | 847 | 2,245 | 2,797 | 2,397 | 487 | 1,075 | 2,091 | 1,990 | 1,824 |
| Romania | 16,583 | 27,928 | 42,056 | 50,823 | 49,811 | 21,623 | 30,175 | 37,779 | 40,248 | 41,331 |
| Bulgaria | 9,415 | 11,701 | 19,389 | 25,517 | 26,470 | 11,210 | 14,875 | 20,520 | 22,302 | 22,859 |
| Hungary | 45,980 | 56,298 | 65,565 | 76,473 | 73,087 | 38,480 | 47,129 | 51,150 | 55,152 | 56,326 |

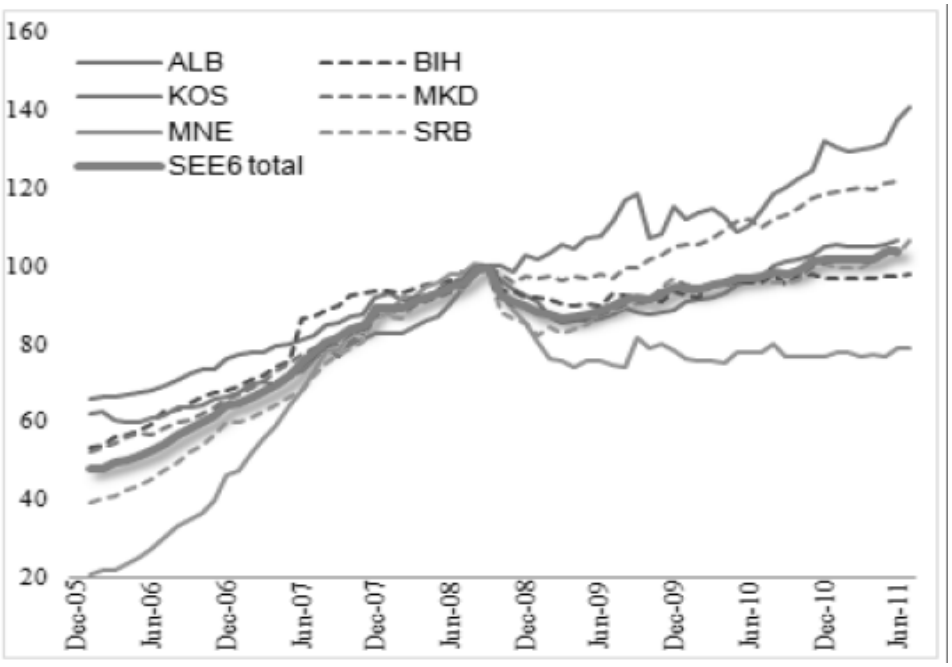
*Source: ECB (2010), Banking Structures, Annex; CB of Montenegro (2011), Statistical bulletin*

*Table 5: Share of loans and deposits in GDP*

| | Loans/GDP | | | | | Deposits/GDP | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2005 | 2006 | 2007 | 2008 | 2009 | 2005 | 2006 | 2007 | 2008 | 2009 |
| Serbia | 29.3 | 29.3 | 34.8 | 39.9 | 44.2 | 23.6 | 28.5 | 35.5 | 32.6 | 38.5 |
| Croatia | 59.7 | 67.6 | 70.7 | 73.8 | 78.4 | 64.2 | 70.1 | 73.3 | 71.5 | 76.2 |
| BiH | 44.0 | 48.3 | 54.9 | 58.9 | 58.9 | 40.1 | 45.7 | 55.6 | 48.3 | 50.9 |
| Romania | 20.7 | 26.8 | 35.9 | 38.7 | 41.0 | 25.9 | 28.0 | 32.4 | 31.2 | 36.8 |
| Bulgaria | 41.4 | 44.8 | 67.1 | 75.2 | 79.2 | 59.4 | 67.2 | 68.7 | 62.5 | 65.4 |
| Hungary | 44.8 | 48.6 | 53.4 | 60.8 | 60.8 | 39.3 | 40.9 | 42.3 | 44.1 | 45.7 |

*Source: Raiffeisen Zentralbank Österreich AG (RZB Group) (2010), CEE Banking Sector Report*

*Figure 2: Total deposits (value in €, Sept. 2008=100)*




*KOS- is Kosovo and Metohija*, Serbian province under UN (1244 Resolution) administration*
*Source: The World Bank (2011)*

*Table 6: Kick off in stress-testing practices in Southeast European countries*

| **Country** | **Year** |
|---|---|
| Serbia | 2007 |
| Bulgaria | 2002 |
| BiH | 2005 |
| Croatia | 2004 |
| Macedonia | 2003 |
| Romania | 2003 |
| Hungary | 2000 |
| Montenegro | 2006 |

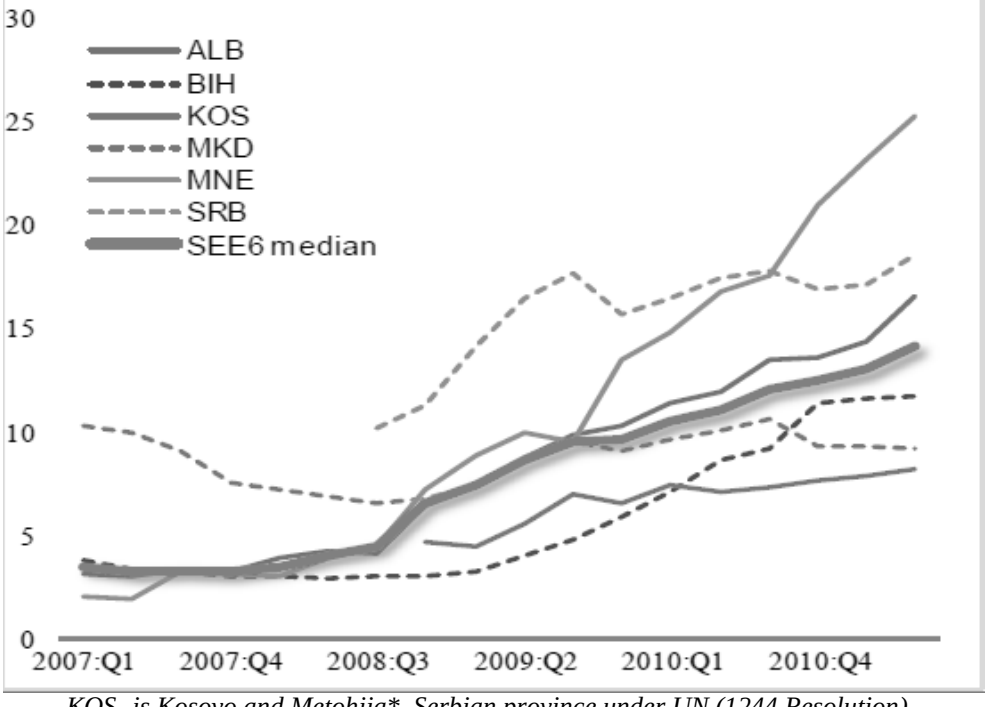
*Source: Malecky and Podpiera (2010)*

*Table 7: Share of NPLs in total loans outstanding in Southeast Europe*

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|---|
| Serbia | n.a | n.a | 11,3 | 11,3 | 15,7 | 16,9 | 18,8 |
| BiH | 5,3 | 4,0 | 3,0 | 3,1 | 5,9 | 11,4 | 11,8 |
| Croatia | 6,2 | 5,2 | 4,8 | 4,9 | 7,8 | 11,2 | 12,4 |
| Macedonia | 15,0 | 11,2 | 7,5 | 6,7 | 8,9 | 9,0 | n.a |
| Montenegro | 5,3 | 2,9 | 3,2 | 7,2 | 13,5 | 21,0 | n.a |
| Hungary | n.a | n.a | 2,3 | 3,0 | 5,9 | 7,8 | 16,1 |
| Romania | n.a | n.a | 1,7 | 2,8 | 7,9 | 11,9 | 14,1 |

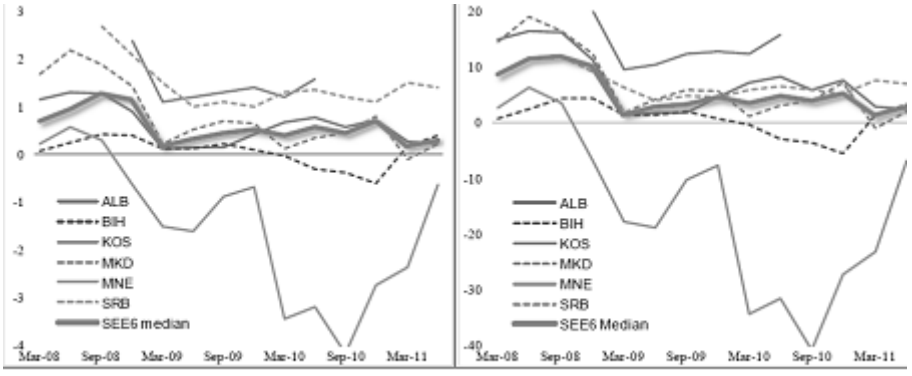
*Source: Cocozza et alia (2011), Raiffesisen (2012)*

*Figure 3: NPL trends in selected Balkan banking sectors*



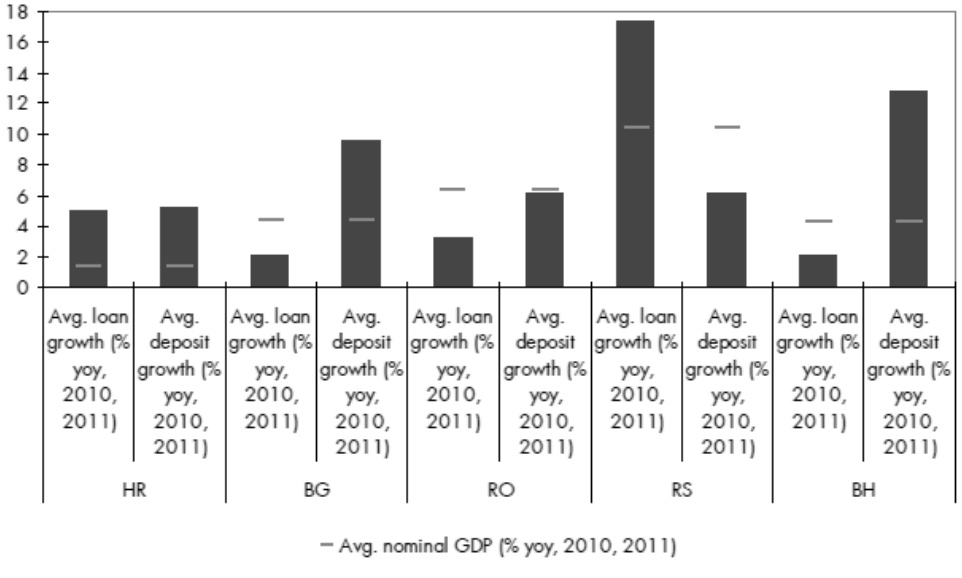

*KOS- is Kosovo and Metohija*, Serbian province under UN (1244 Resolution) administration*
*Source: The World Bank (2011)*

*Figure 4: ROA (left) and ROE (right) for selected banking sectors in the Balkans*




*KOS- is Kosovo and Metohija*, Serbian province under UN (1244 Resolution) administration*
*Source: The World Bank (2011)*

*Figure 5: Banking sectors' growth versus economic growth rates*




*Source:* Raiffeisien (2012)

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