



# **Banking and the Financial Sector in Transition and Emerging Market Economies**

Organized by the Croatian National Bank

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## **The finance-growth nexus and financial sector environment: New evidence from Southeast Europe**

Hotel "Argentina", Dubrovnik  
June 26 - 28, 2003

Final version  
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# **The finance-growth nexus and financial sector environment: new evidence from Southeast Europe**

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Abstract: Recent research on a large sample of countries has established a positive and causal link between financial development and economic growth in the long run. For this reason, financial sector reform has been regarded as conducive to faster growth in transition countries. However, in Southeast Europe, preliminary empirical evidence in the last decade fails to support this hypothesis. Focusing on financial sector environment, we interpret this finding as a reflection of the failure of the reforms of the first half of the 1990s to prevent inflationary finance and crises in many countries of the region, ultimately contributing to large output losses. More recently, tightened regulations and supervision, as well as the opening of domestic banking sectors to foreign investors have positively changed the environment of Southeast Europe's financial sectors. Hence, financial development in a proper sense may have just started.

JEL classification number: G21, G38, O16, P27

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## 1. Introduction

Transition economies inherited from the socialist era financial sectors that played no role in the allocation of resources across time and agents on a market basis. Banks passively accommodated and monitored payment flows between firms or, in the case of former Yugoslavia, between socially-owned enterprises. In view of these significant distortions, there was widespread consensus in the early 1990s that financial sector reform could contribute importantly to the transition from plan to market and ultimately foster growth (Blommestein and Spencer, 1993; Fries and Lane, 1994).

Interestingly, a recent body of theoretical and empirical literature, surveyed e.g. in Levine (1997), has established for a large sample of countries a positive and causal link between finance development and economic growth in the long run. Against this backdrop, this paper sheds further light on the finance-growth nexus, focusing on Southeast Europe.<sup>1</sup> Focusing the analysis on Southeast European countries is relevant for a number of reasons. First, although there is a vast literature on the role of the financial sector in transition economies (see e.g. EBRD, 1998; Bonin and Wachtel, 2002; Winkler, 2002), empirical studies on the finance-growth nexus have been relatively scarce.<sup>2</sup> Second, while many financial sector studies have focused on Central and Eastern European countries that are currently acceding to the EU (see e.g. Caviglia et al., 2002), Southeast European countries have not so much come into focus. Third, in the last decade, the environment of the financial sector, recently identified as key to the finance-growth relation (Wachtel, 2001), has undergone significant changes in this region. Last, from an institutional perspective, Southeast European countries are embarked on a process of integration into EU structures, either through accession negotiations or within the so-called “Stabilisation and Association” process, which, in light of the *acquis communautaire*, has some implications on banking sector reform.

Barely a decade after the start of transition, it is still too early to draw definitive conclusions, but our preliminary empirical findings suggest that high expectations on finance’s contribution to growth have not been met in Southeast Europe. Indeed, in the last decade, finance seems not to have contributed to economic growth.<sup>3</sup> We interpret this finding as a reflection of the failure of the reforms of the first half of the 1990s to prevent inflationary finance and financial crises in many countries of the region, ultimately contributing to large output losses. In the late 1990s, tightened regulations and supervision as well as the opening of domestic banking sectors to foreign investors have positively changed the environment of financial sectors in the region and contributed to their stability, credibility and liquidity. Hence, financial development in a proper sense, in particular in some countries, may have just started.

The remainder of the paper is set out as follows. Section 2 presents some empirical evidence on the finance-growth nexus in Southeast Europe. Section 3 provides a conceptual framework

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<sup>1</sup> There is no consensus on the exact delimitation of the region. The EU’s relations with Southeast Europe in the framework of the Stability and Association Process refer only to the western Balkans, namely Albania, Bosnia and Herzegovina, Croatia, the Former Yugoslav Republic of Macedonia (FYR Macedonia) and Serbia and Montenegro (formerly known as the Federal Republic of Yugoslavia). This paper uses a larger definition from the Regional Strategy Paper of the European Commission - World Bank joint office for Southeast Europe, which adds to the aforementioned countries Bulgaria, Romania (which are also EU accession countries) and Moldova (see <http://www.seerecon.org>).

<sup>2</sup> Empirical studies on the finance-growth nexus in transition economies, albeit with no specific focus on Southeast Europe, include Berglöf and Bolton (2002) and Koivu (2002).

<sup>3</sup> As capital markets in Southeast Europe are severely underdeveloped, the paper focuses on the banking sector.

to interpret the empirical evidence. Section 4 applies this framework to the experience of Southeast European countries. Section 5 concludes.

## 2. Empirical evidence on the finance-growth nexus in Southeast Europe

### *A brief overview of the finance-growth nexus*

There is a broad consensus in the literature that financial systems arise to overcome information and transactions frictions as well as to facilitate the allocation of resources, across space and time, in an uncertain environment (Merton and Bodie, 1995). By this, financial systems can affect growth by promoting capital accumulation and/or by exerting a positive impact on the pace of productivity growth (Levine, 1997).<sup>4</sup> Specifically, financial systems serve a wide array of functions. They

- pool savings from disparate depositors allowing for production processes that would otherwise be limited to inefficient scales;
- allocate resources through information acquisition about investment projects and selection of the most promising ones, allowing capital to flow to its highest value use;
- manage liquidity and idiosyncratic risks through aggregation and transfer of these risks to those more willing and able to bear it;
- monitor managers, so that funds allocated are spent as envisaged, which facilitates the separation of management and ownership, and helps harden budget constraints.

These growth-promoting functions are called upon to explain the findings of empirical research suggesting that financial development has been indeed a significant and inextricable part of the growth process. In several papers, King and Levine (1993a, 1993b), controlling for other factors that affect long-run growth, find in a large sample of countries that real GDP per capita growth is significantly correlated with financial sector depth.<sup>5</sup> Their econometric framework, which has become a standard in the literature, is as follows:

$$\Delta y_{it} = \alpha' \mathbf{X}_{it} + \beta z_{it} + u_{it} \quad (1)$$

where  $\Delta y_{it}$ , the real GDP per capita growth in the  $i$ th country in time period  $t$ , is regressed on a set of conditioning variables  $\mathbf{X}_{it}$ , and a measure of financial depth,  $z_{it}$ , while  $u_{it}$  is the

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<sup>4</sup> The theoretical debate on the relation between financial development and economic growth is long-standing. As early as 1912, Schumpeter argued that banks actively spur technological progress by selecting and financing those entrepreneurs with the best chances of successfully implementing innovative products and production processes. Conversely, Robinson (1952) and Lucas (1988) claimed that the financial system responds passively to economic growth and might not be decisively relevant for economic growth. Indeed, new growth theory in the mid-1980s and early 1990s did not offer much guidance as to how introduce finance in growth models. The few attempts that included growth-supporting effects of the financial system (Bencivenga and Smith, 1991; Greenwood and Jovanovic, 1992; King and Levine, 1993a) initially derived their insights from finance theory and transplanted them into a growth model. This is why, basically, these models assume that “financial development leads to economic growth, without showing the mechanics behind this supply-leading relationship” (Hermes, 1994).

<sup>5</sup> While not as extensive as the body of work on the banking sector, specific studies on the stock market also suggest a positive link with economic growth. Theory indicates, for instance, that well-developed stock markets strengthen corporate control by facilitating take-overs or making it easier to tie managerial compensation to performance. This enhances managerial incentives and improves resource allocation (see Levine, 2001, for an overview). Empirical studies (e.g. Levine and Zervos, 1998) confirm that stock market liquidity is positively and significantly correlated with current and future rates of economic growth, capital accumulation and productivity growth.

residual.<sup>6</sup> Converging results have emerged from studies conducted at the firm-level (e.g. Demirgüç-Kunt and Maksimovic, 1998), industry-level (e.g. Rajan and Zingales, 1998) or time-series-based analyses (e.g. Rousseau and Wachtel, 1998).

Closer analysis seems moreover to indicate that financial development is significantly correlated with total factor productivity but not robustly correlated with either private savings rates or capital accumulation (De Gregorio and Guidotti, 1992; Beck, Levine and Loayza, 2000). Therefore, finance seems to contribute to long-term growth by improving the economy's productivity rather than by increasing the quantity of physical capital.

### *Specific challenges in Southeast Europe*

There are two major challenges when applying the standard econometric framework described in (1) to Southeast European countries.

First, there is “little specific guidance from economic theory” to model the evolution of output in transition economies (Berg, Borensztein, Sahay and Zettelmeyer, 1999). As a result, the “standard” set of conditioning variables  $X_{it}$  (Wachtel, 2001) that includes the log of initial real GDP per capita, to capture a convergence effect, and the initial secondary school enrollment rate, to proxy human capital investment, may not directly apply to these countries.<sup>7</sup> Rather, as indicated in Fischer and Sahay (2000), growth in transition economies seems to be related to the timing of macroeconomic stabilisation and the extent of structural reform. Consequently, we follow their modelling strategy by including inflation in the set of conditioning variables to proxy the degree of macroeconomic stabilisation. Inflation enters the regression with an expected negative sign, due to high inflation's disruptive effects on the economy.<sup>8</sup> Likewise, the share of private sector to GDP is used to proxy the degree of transition to a market economy as well as progress made in terms of structural reform. It enters the regression with an expected positive sign, due to the efficiency gains created by the crowding out of unproductive state activities by new private firms.

Second, like for other transition economies, available time series are short and span only about ten years of data. Southeast European countries are further characterised by high political instability and wars, which makes the number of observations available for stable estimation even smaller.<sup>9</sup> Our panel data set comprises annual data over 1993-2001 for the 8

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<sup>6</sup> Indicators of financial depth include (i) the ratio of broad money to GDP (monetisation ratio) and (ii) credit to private enterprises to GDP (financial intermediation ratio). Both ratios measure the extent to which resources are intermediated across time periods and agents via the banking system. The monetisation ratio measures the transfer of financial resources from the non-financial sector to the financial sector in terms of a monetary aggregate (broad money), while the financial intermediation ratio measures the extent of financial resources flow back to the non-financial sector.

<sup>7</sup> Indeed, these variables prove either to be not significant or to have the wrong sign in our estimates.

<sup>8</sup> Obviously, in Southeast European economies, part of inflation, especially at the outset of transition, is also linked to the liberalisation and adjustment of administrative prices. However, estimates available for Central and Eastern European countries in the last decade suggest that monetary determinants are also at the core of price dynamics in transition economies (Arratibel et. al., 2002). Interestingly, Rousseau and Wachtel (2002) have recently confirmed empirically that inflation directly affects the finance-growth nexus. In countries with inflation higher than 13%-25% per year, finance ceases to boost economic growth because, as they put it, the flow of information about investment projects and returns that is used by intermediaries becomes more uncertain and less readily available. Furthermore, high inflation can allegedly repress financial intermediation by eroding the usefulness of money assets (McKinnon, 1973) and leading to unproductive investment decisions (Hicks, 1974).

<sup>9</sup> This is why the set of conditioning variables comprises a dummy variable which is equal to 1 when country  $i$  is in war in period  $t$ . However, due to missing values for other variables, the war dummy is equal to 1 for only 5 observations in the sample, which may explain why it is not statistically significant and does not alter regressions' results.

Southeast European countries, with missing data for individual countries even more reducing the total number of observations that are available for estimation.<sup>10</sup> This contrasts with most studies in the growth literature that use data set that span several decades. For these two reasons, our results should be interpreted with care and considered more as signals than as decisive evidence. To ascertain results' robustness, we resort to two other estimators on top of ordinary least squares. Firstly, we use two-stage least squares estimation to account for potential reverse causality between real GDP per capita growth and financial depth, as well as between real GDP per capita growth and inflation.<sup>11</sup> The instruments used for financial depth and inflation are their lagged respective values. Secondly, we also introduce fixed-effects to capture country-specific factors that may affect growth performances, such as initial conditions at the outset of transition.

The financial intermediation ratio and monetisation ratio are used to proxy financial depth, i.e.  $z_{it}$ . Since they are correlated with each other, they are included in (1) one at a time.

### *Results*

Estimations are reported in table 1. Panel A reports regressions' results which include the financial intermediation ratio. Panel B reports regressions' results which include the monetisation ratio. Overall, results suggest that financial depth did not have a significant impact on Southeast European countries' growth performance over 1993-2001. Indeed, estimating (1) by ordinary least squares, both the share of private sector to GDP and inflation have a significant impact on real GDP per capita growth with a correct sign (see columns  $a$  and  $a'$ ). A 10 percentage points rise in the share of private sector to GDP increases real GDP per capita growth by about 1.2 percentage point per year. Conversely, a 10 percentage points rise in the inflation rate decreases real GDP per capita growth by about 0.6 percentage point per year. By contrast, both the intermediation and the monetisation ratios do not statistically impact real GDP per capita growth. This result is not altered with robust variance estimates and controlling for war effects with a dummy.<sup>12</sup> Overall the regression explains about a quarter of the variance of real GDP per capita, which is broadly in line with existing studies on the finance-growth nexus (Wachtel, 2001; Rousseau and Wachtel, 2002).

Results obtained by using initial GDP and human capital in the conditioning set of variables are not satisfactory (see columns  $b$  and  $b'$ ). These variables are always insignificant, with the exception of initial human capital, which has a wrong (negative) sign when the regression includes the financial intermediation ratio. Overall, financial depth's impact on real GDP per capita growth remains insignificant with a wrong (negative) sign. The fit of the regression deteriorates substantially, with the adjusted  $R^2$  decreasing close to 0. Removing the constant term which could be considered as collinear with the conditioning variables, which are in this case time-invariant, does not alter the results.

Estimating (1) by two-stage least squares and using lagged values as instrumental variables, when the financial intermediation ratio is included in the regression, both the share of private sector to GDP and inflation are estimated to significantly impact real GDP per capita growth with a correct sign (columns  $c$  and  $d$ ). Estimated elasticities are slightly larger than with

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<sup>10</sup> All details on the data can be found in the appendix to the paper.

<sup>11</sup> Indeed, financial depth may be endogenous if richer countries have more developed financial sectors because the income elasticity of the demand for financial services is large (Wachtel, 2001). Moreover, inflation may be endogenous if, for instance, an exogenous growth slowdown generates higher inflation. This could result if monetary authorities react to economic slowdown with expansionary policies (Barro, 1997).

<sup>12</sup> To save space, not all regression results are reported in table 1. They are however available from the authors upon request.

ordinary least squares. However, when the monetisation ratio is included in the regression, the share of private sector to GDP and inflation lose their statistical significance (columns  $c'$  and  $d'$ ). In all cases, both the intermediation and the monetisation ratios do not statistically impact real GDP per capita growth. This result is not altered with robust variance estimates and controlling for war effects with a dummy.<sup>13</sup> Overall the regression explains between one-quarter and one-third of the variance of real GDP per capita.

Lastly, estimating (1) by two-stage least squares and including country fixed-effects, when the financial intermediation ratio is included in the regression and is the only instrumented variable, all variables are significant and have the correct sign (column  $e$ ). In particular, a 10 percentage points rise in the financial intermediation ratio is estimated to increase real GDP per capita growth by 3.6 percentage points per year. When the monetisation ratio is included in the regression and is the only instrumented variable, all variables are significant but the monetisation ratio has a negative sign (column  $e'$ ). A 10 percentage points rise in the monetisation ratio is estimated to decrease real GDP per capita growth by 2.4 percentage points per year. The significant, albeit contradictory impacts of the financial depth variables on growth are probably due to reverse causality between real GDP per capita growth and inflation. Indeed, when both inflation and financial depth variables are instrumented, the estimated impact of financial depth on real GDP per capita growth is no longer statistically significant (columns  $f$  and  $f'$ ). This result is not altered by the inclusion of a dummy to control for war effects. Last, when the financial intermediation ratio is included in the regression, the overall  $R^2$  remains in the neighbourhood of one-quarter of the variance of real GDP per capita while, when the monetisation ratio is included in the regression, it decreases to 10-15%.

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<sup>13</sup> See footnote 12.

Table 1: Estimated impact of financial depth on economic growth in Southeast Europe

Dependent variable: Real GDP per capita growth rate, 1993-2001

Estimation method	Ordinary least squares		Two-stage least squares (2SLS) <sup>1</sup>		2SLS and country fixed-effects <sup>2</sup>	
	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>
<u>Panel A</u>						
Constant	-0.035 (0.32)	-0.027 (0.87)	-0.096 (0.06)	-0.088 (0.07)	-0.095 (0.11)	-0.093 (0.27)
Private sector to GDP ratio	0.128 (0.03)		0.214 (0.00)	0.211 (0.00)	0.158 (0.12)	0.151 (0.34)
Inflation rate	-0.061 (0.00)		-0.084 (0.10)	-0.106 (0.03)	-0.096 (0.00)	-0.100 (0.26)
Log of initial GDP		0.020 (0.47)				
Secondary school enrollment rate		-0.138 (0.08)				
War dummy				0.050 (0.17)		
Financial intermediation ratio	0.019 (0.79)	-0.082 (0.50)	0.126 (0.24)	0.106 (0.33)	0.365 (0.10)	0.378 (0.23)
Number of observations	56	60	51	51	51	51
Adjusted $R^2$	0.28	0.00	0.37	0.37	0.27	0.27
	<i>a'</i>	<i>b'</i>	<i>c'</i>	<i>d'</i>	<i>e'</i>	<i>f'</i>
<u>Panel B</u>						
Constant	-0.021 (0.51)	0.397 (0.03)	-0.019 (0.66)	-0.016 (0.72)	0.116 (0.01)	0.145 (0.02)
Private sector to GDP ratio	0.123 (0.06)		0.123 (0.19)	0.103 (0.25)	0.017 (0.80)	-0.077 (0.42)
Inflation rate	-0.058 (0.00)		-0.081 (0.14)	-0.097 (0.07)	-0.101 (0.00)	-0.182 (0.00)
Log of initial GDP		-0.039 (0.14)				
Secondary school enrollment rate		-0.094 (0.40)				
War dummy				0.040 (0.31)		
Monetisation ratio	-0.021 (0.68)	-0.061 (0.46)	-0.013 (0.86)	0.014 (0.85)	-0.246 (0.00)	-0.110 (0.33)
Number of observations	58	61	55	55	55	55
Adjusted $R^2$	0.24	0.03	0.24	0.23	0.09	0.15

Notes: *p*-values are in parentheses next to each regression coefficient. <sup>1</sup>In all regressions, the inflation rate is instrumented by lagged inflation. Financial depth is instrumented by lagged financial depth. <sup>2</sup>In columns *e* and *e'*, only financial depth is instrumented. In columns *f* and *f'* both the inflation rate and financial depth are instrumented. All regressions have been re-estimated including a dummy to control for war effects or with robust variance estimators. This does not alter the insignificance of the effect of financial depth on real GDP per capita growth.



### 3. A conceptual framework to interpret the empirical evidence

Our findings on Southeast European countries contrast with the literature's standard result whereby, at the world level and over the long run, finance has a strong and positive impact on economic growth. These results are however in line with those of Koivu (2002) who, in a panel of transition countries, also finds that credit does not affect significantly growth. In this respect, Southeast European countries, like other transition economies, could be regarded as outliers, due to the substantial systemic change they undergo as well as to the short period covered by the data sample.

However, our results may not only reflect regional specifics, but point to a more general principle, namely that finance may not be growth-promoting, when financial institutions are subject to poor incentive structures and governance, e.g. when banks' behaviour is not simultaneously incentive-compatible with that of borrowers and depositors. The reason thereof is that, under asymmetric information, banks should resort to mechanisms needed to mitigate moral hazard and adverse selection problems. These problems are at the core of "poor" banking practices, including the granting of bad loans, which themselves are conducive to resource misallocation, inflationary finance, bank failures, financial crises and ultimately significant output losses (Sundararajan and Balino, 1991; Caprio and Klingebiel, 1996; Caprio 1997 and 1998; Ingves, 2003).<sup>14</sup> The literature has identified these mechanisms as signalling, screening, monitoring, and self-selection.<sup>15</sup> In practice, on the assets side of banks' balance sheets, they include the requirement that loans are extended only after borrowers have provided proper information (e.g. balance sheet data, business plans, data on market and socio-economic position) and/or assets (e.g., collateral, reputation, own funds) to the bank (Gertler and Rose, 1994). Moreover, loan portfolios need to be sufficiently diversified (Diamond, 1984). On the liabilities side, equity (Leland and Pyle, 1977) and reputation (Diamond, 1989; Breuer, 1995; Hellmann and Murdock, 1998) have been identified as devices that banks may resort to, to ensure that incentives-related problems in the relation between banks and their depositors are minimised.

As resorting to these mechanisms is costly, it cannot be taken for granted that banks actually use them. Therefore, the recent finance-growth literature started to focus on the financial sector environment, as it may crucially affect the impact of finance on growth. Two areas of research may, in this respect, shed light on our results:

- First, banking regulation and supervision are regarded as a key policy device to set out and enforce standards that provide banks with the required incentives or simply force them to resort to the aforementioned mechanisms that mitigate moral hazard and adverse selection (Dewatripont and Tirole, 1994).<sup>16</sup> The main instruments, e.g. as laid down in the Basle standards, include capital adequacy, loan classification and provision requirements, limits on large exposures and connected lending, as well requirements for liquidity, credit and market risk management.
- Second, the overall institutional and legal framework influences financial development and its related growth-enhancing effects to a significant extent. Financial contracts ought

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<sup>14</sup> In general, banking crises entail three types of costs (World Bank, 2001): (i) the stock of unrecoverable loans that were, as revealed by banks' insolvency, wasted for unproductive purposes; (ii) the public finance cost related to the bailing out of banks and (iii) real output losses triggered by a drop in investment further to either a general loss of confidence or a restricted access to credit.

<sup>15</sup> Classic references are Akerlof (1970), Stiglitz and Weiss (1981) and Diamond (1984).

<sup>16</sup> Indeed, depositors have limited information on banks' activities, as banks extend loans on the basis of private information, and are unable to exert proper governance on banks' management and owners.

to be trusted by private agents. A proper legal and accounting framework may cater this need by establishing and enforcing property rights and providing reliable information. Indeed, econometric evidence (Levine, Loayza and Beck, 2000) suggests that countries with legal systems that give a high priority to secured creditors rights, rigorous contracts enforcement and high-quality account standards, tend to have better developed financial intermediaries.

To wrap up, financial development is not growth-supportive when the institutional and legal framework as well as incentives given to market participants are not appropriate, even if the financial sector seems relatively deep. In other words, qualitative indicators should complement quantitative indicators to describe the degree of financial development, as illustrated in table 2:

Table 2: Financial development: quantity and quality

		Financial depth	
		Shallow	Deep
Quality of the environment	Poor	<i>Non-developed financial sector</i>	<i>Socialist financial system</i> <i>Financial sector prone to inflation and crises</i>
	Good	<i>Stable financial sector, but not actively growth-supportive</i>	<i>Developed and growth-supportive financial sector</i>

Source: authors' own compilation.

Table 2 has four quadrants. The top left quadrant describes an economy where the financial sector is not developed, both at the quantitative and qualitative level, i.e. shallow and with a poor environment. The top right quadrant describes a financially deep economy with a poor environment. In a socialist system, such a situation may last, as central planners have the leading role in resource allocation, while the financial sector is only passively responding and neither faces nor enforces hard budget constraints. In a market economy, however, this situation is not sustainable. Banks would end up overburdened with bad loans in the absence of mechanisms that mitigate moral hazard and adverse selection problems. This would trigger either a financial crisis and bank failures or inflationary finance, if bank recapitalisation is financed by money printing. The lower left quadrant describes an economy with a stable financial sector, with a good environment, but too shallow to actively support growth. The lower right quadrant depicts the optimal situation: the financial sector is both deep and characterised by a good environment.

In this framework, growth-supportive financial development can be considered as an evolution whereby the economy's financial deepening is either based on a good environment (from the lower left to the lower right quadrant), or is at least going hand-in-hand with its improvement (from the top left to the lower right quadrant), as indicated by the arrows.

#### 4. Applying this framework to the experience of countries in Southeast Europe

##### *Up to the late 1990s: deep financial sector, but poor environment*

In the socialist era, the financial sector of Southeast European countries, like in other former socialist countries, accommodated passively and monitored payment flows between state-owned enterprises.<sup>17</sup> The financial sector was additionally tasked with mobilising households' savings. Due to central planning, or to the system of workers self-management in former Yugoslavia, it was neither necessary nor feasible for financial institutions to play a part in the allocation of resources.<sup>18</sup> Neither was there a need for banking supervision and regulation, nor for an appropriate legal framework. Financial sectors were however relatively deep, although product and services variety was poor. In 1991, at the outset of transition, monetisation ratios were e.g. above 70% of GDP in Albania, Bulgaria and Moldova and 50% in Romania (EBRD, 1998). Against this background, the financial system in the socialist era can be described by the top right quadrant of table 2.

At the start of transition, consensus was strong in many countries that financial sectors had to be overhauled. As a result, the largest part of the 1990s is characterised by substantial reforms. However, these failed to improve adequately the quality of financial sectors' environment. The main deficiencies were:

- Insufficient restructuring of state-owned banks and poor governance. There was a widespread consensus in the early 1990s on the need to give priority to the restructuring and privatisation of state-owned commercial banks. However, due in particular to political economy reasons (Bokros, 2002), these efforts were either delayed or failed, by not addressing banks' deeply-rooted governance problems (Keren and Ofer, 2002).<sup>19</sup> At the outset of the reform period at least, state-owned banks were indeed "little more than an accounting construction and were run by segments of the old bureaucratic network and staff." (Berglof and Bolton, 2002). Thus, state-owned banks were subject to political pressures to extend loans to non-profitable state-owned enterprises in so-called "priority sectors", which triggered a rise in bad loans and favoured resource misallocation (EBRD, 1998).
- Lax regulation on licensing new private banks and connected lending. With a view to kick-in the transition in the financial sector, authorities opened the banking market to private-owned institutions, expecting it to strengthen competition and the sector's efficiency. However, in a number of countries the outcome proved to be an unregulated free-for-all, as minimum capital requirements were either deliberately set at very low levels or became low in real terms due to high inflation. Companies exploited this situation by founding banks that would only serve as their finance department. Most of the newly-founded banks proved therefore to be "agent" or "pocket" banks (World Bank, 1989 and 1993), i.e. banks created to grant bad loans to the companies of their owners. As a result, rather than promote growth, finance led to (i) inefficiency costs related to

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<sup>17</sup> Socially-owned enterprises in the case of former Yugoslavia.

<sup>18</sup> With the exception of former Yugoslavia, in most socialist countries commercial banks were created further to the break-up of the monobank system in the late 1980s and early 1990s. Former Yugoslavia had already created a two-tier banking system in the 1960s. However, this reform softened budget constraints by *de facto* making captive a large number of financing companies (i.e. banks) that lent money to their socially-owned enterprise owners on non-commercial terms (Gomel, 2002).

<sup>19</sup> For instance, as late as 1997, state-owned banks accounted for 90% of total banking assets in Albania, 84% in Bosnia and Herzegovina, 66% in Bulgaria, 33% in Croatia and 80% in Romania (EBRD, 2002). Only in FYR Macedonia and Moldova, at least formally, state-owned banks had a much smaller share.

resources misallocation; (ii) reputation costs as “pocket banks” severely undermined private sector confidence in the whole banking sector.

- Lack of human capital and credit technology. Banks overall were not accustomed to credit risk assessment and risk management, as well as to resort to loan security, credit monitoring and other key elements pertaining to financial intermediation (Gelb and Honohan, 1991; Caprio, 1995). As a result, most institutions were unable to use best professional practices.
- Inadequate banking supervision. Given that banking regulation and supervision had to be created from scratch, most supervisory departments were not able to set out and enforce international standards guaranteeing sound finance, regarding in particular loan loss provisioning, and limits to exposure and connected lending. Staff was moreover limited, often neither experienced nor adequately trained, and unable to deal with an increasing number of banks. Finally, since state-owned banks were still dominant players, banking supervision was further weakened with governments being reluctant to see supervisors act decisively to liquidate troubled banks.
- Poor institutional and legal environment. Although parliaments passed legislation and governments adopted regulations pertaining to financial contracts, their effectiveness was jeopardised by inconsistencies with other legislation, often inherited from the socialist rule, and not fully implemented by courts, mainly in the areas of insolvency, bankruptcy and collateral.

In a nutshell, financial sectors’ environment remained poor, so that they remained typical of situations described in the top right quadrant of table 2. This could last as long as inflation soared, or even turned into hyperinflation like in Bulgaria, Croatia, FYR Macedonia and Serbia.<sup>20</sup> Inflation eased the debt burden of insolvent borrowers as it was accompanied by highly negative real interest rates.<sup>21</sup>

*The crises years: shallower financial sector, persistently poor environment*

However, when the first attempts of macroeconomic stabilisation took hold, the granting of “false credit” (McKinnon, 1992), i.e. the extension of a loan to a counterpart who is known to be unlikely to pay back in real terms, triggered an increase in non-performing loans. Banking supervision and regulation proved largely unable to address these unprecedented difficulties.

Hence, the outbreak of financial crises could no longer be prevented. Some countries, such as Bulgaria in 1997 and Croatia in 1998/1999, faced outright banking crises; a number of banks went bankrupt and were eventually closed down or sold (Gomel, 2002). Other countries, like Romania and Serbia under the Milosevic regime, managed to avoid outright crises thanks to high inflation rates fuelled by central bank and government interventions.<sup>22</sup> Somewhat different, the 1997 financial crisis in Albania was triggered outside the financial sector with a

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<sup>20</sup> To some extent, high inflation was caused by the financial sector’s weakness, as central banks felt a need to support ailing institutions by providing them credit (see below).

<sup>21</sup> As a result, only Albania and FYR Macedonia had a ratio of non-performing loans to total loans above 30 percent. In other countries, ratios were much lower, although still high by Western standards.

<sup>22</sup> In Romania, for example, the intervention regarding Bancorex, the largest state-owned bank, was related to concerns about systemic risk (IMF, 2001b). In Serbia and Montenegro, the government resorted to repressive regulation (i.e. limited corporate customers’ access to cash) and froze foreign currency deposits to avoid a bank run.

run on pyramid schemes by enterprises and households.<sup>23</sup> In Moldova, the impact of the Russian crisis was strongly felt by domestic banks.<sup>24</sup>

Financial crises in Southeast European countries were associated with a shrinking of financial depth. The monetisation ratio in Bulgaria, the most spectacular example, was halved in one year, decreasing from 71% of GDP in 1996 to 33% in 1997. Conversely, the impact of the financial crisis in Croatia was smaller, as financial deepening flattened out for a year. Overall, the crisis episodes can be described as a shift from the top right to the top left quadrant as financial depth adjusts downwards to the poor environment of the financial sector.

These financial crises went along with substantial output losses and a large investment decline (table 3). In Albania and Bulgaria real GDP plummeted in the crisis year(s) (in Albania by 7% in 1997, and in Bulgaria by 9% and 6% in 1996/97). Croatia's output losses in 1999 were more limited, at 1%, but the recession was the only one the country had experienced since the end of the war in the mid-1990s. Likewise, from 1997 to 1999, while struggling with several bank failures and crises, Romania went through three years of recession. After having experienced its first year of positive growth in the transition period, Moldova posted two additional years of recession, in 1998 and 1999. And even in FYR Macedonia, where there was no outright crisis, major weaknesses in the banking sector have been identified as a cause for slow growth (Drummond, 2000).

Table 3: Real activity indicators in selected Southeast European countries (% change)

	Bulgaria		Croatia		Moldova		Romania	
	Real GDP	Investment	Real GDP	Investment	Real GDP	Investment	Real GDP	Investment
1994	1.8	1.1	5.9	n.a.	-31.2	n.a.	3.9	20.7
1995	2.9	16.1	6.8	n.a.	-1.4	-16	7.1	6.9
1996	-9.4	-21.2	6	n.a.	-5.9	-8	3.9	5.7
1997	-5.6	-20.9	6.5	n.a.	1.6	-8	-6.1	-3
1998	4	35.2	2.5	2.5	-6.5	10	-5.4	-18.1
1999	2.3	20.8	-0.9	-3.9	-3.4	-22	-3.2	-5.1
2000	5.4	15.4	2.9	-3.8	2.1	-15	1.8	5.5
2001	4	19.9	3.8	9.7	6.1	-2	5.3	6.6

Note: The shaded area indicates years of banking sector crisis or severe banking sector problems.

Source: EBRD (2002), except gross fixed real investment in Moldova (National Bank of Moldova).

Of course, third factors, such as the break-up of former Yugoslavia and subsequent wars, swings in the EU's (the main trading partner of the region) economic activity, as well as the inherent difficulties related to the transition process in other policy areas, additionally contributed to poor macroeconomic performance. But it is fair to say that inadequate financial sector reform probably played a part.

#### *The late 1990s: improved environment*

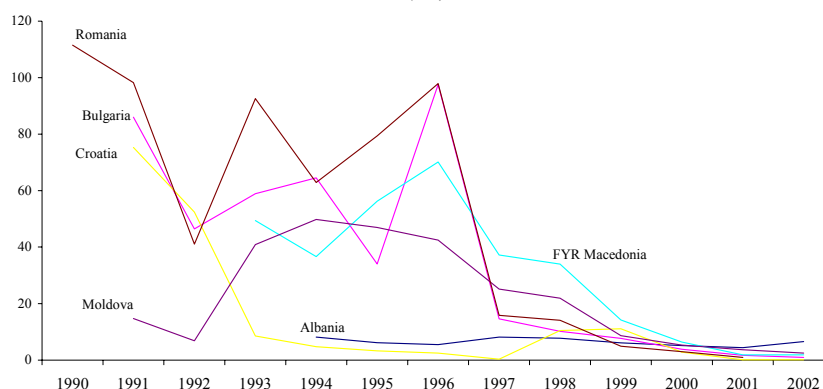
Output and budgetary costs of financial crises were instrumental in bringing about a decisive change in financial sector reform policies in the most recent years. Reforms have successfully improved the environment of the financial sector, by focusing on three aspects:

<sup>23</sup> In the 1990s, pyramid schemes within and outside the banking sector also caused financial turmoil in Bulgaria, Romania, Serbia, Montenegro and FYR Macedonia (Gomel, 2002). However, the systemic impact was nowhere as large as in Albania (Jarvis, 2000).

<sup>24</sup> In early 1999, 14 out of a total of 22 banks were assigned to the National Bank's "Bank Resolution Unit" (IMF, 2001a).

- Hardening of budget constraints. Central banks in the region have reduced or ceased to lend to commercial banks, thereby putting harder constraints on their refinancing opportunities (chart 1). At the end of 2002, central bank lending to commercial banks in most countries of the region was virtually nil. Conversely, central banks have accumulated foreign assets.

Chart 1: Monetary authorities' claims on deposit money banks as a share of reserve money  
(in %)



Source: IMF and authors' calculations.

- Tightening of banking supervision and regulation. Authorities in Southeast Europe have endeavoured to adopt international standards regarding banking supervision and regulation and, in some cases, even more stringent requirements (Talley, Giugale and Polastri, 1998). Regulatory and supervisory reforms touched many areas, but the main focus has been to strengthen capital adequacy requirements. The amount of capital needed to obtain a banking licence increased substantially and some countries raised capital adequacy ratios even above the 8%-Cooke reference value (table 4).<sup>25</sup>

Table 4: Bank capital in Southeast Europe: requirement and adequacy ratio, latest values

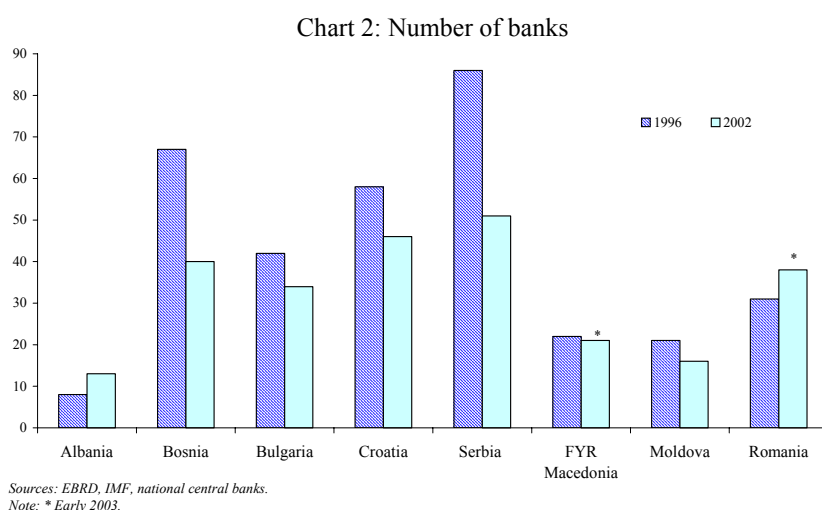
	Minimum capital requirement (as specified)	Minimum capital requirement (in EUR million)	Minimum capital adequacy ratio (in %)
Albania	ALL 700 million	5.5	12
Bosnia and Herzegovina	BAM 15 million	7.7	10
Bulgaria	BGN 10 million	5.1	12
Croatia	HRK 40 million	5.4	10
Serbia	EUR 10 million	10	8
FYR Macedonia	EUR 9 million	9	8
Moldova	MDL 32 million	2.8	12
Romania	ROL 250 billion	9.6	12
<i>Pro memoria:</i>			
Euro area		5	8

Sources: World Bank database on bank regulation and supervision, national authorities.

<sup>25</sup> See also the respective country assessments in EBRD (2002).

Tighter capital requirements, however, only provide incentives for more prudent lending if accounting regulations, especially those pertaining to the valuation of assets, are appropriate and closely monitored (Dziobek, Frecaut and Nieto, 1995).<sup>26</sup> There are two reasons for this. First, as there is a strong incentive for bank managers to underreport the value of their bad assets and overstate that of their capital, full and reliable disclosure can be expected only if there are regulatory interventions, conservatorship or even liquidation. Second, without proper provisioning, minimal capital requirements do not induce banks to lend cautiously, as the level of equity reported to the authorities is overstated. Proper classification and provisioning of loans is therefore of prime importance to make banks and borrowers' incentives compatible. Last, many countries in the region have introduced international accounting standards to improve transparency, while banking supervision has been strengthened in terms of both on-site and off-site inspection.

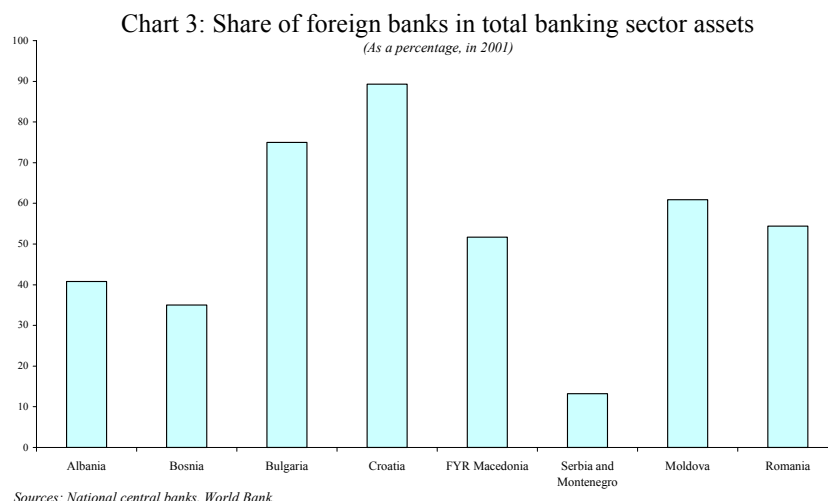
- Consolidation and opening to foreign investors of the banking sector. Financial crises and higher minimum capital requirements led to a consolidation in Southeast Europe's banking sectors: since the middle of the 1990s, the number of banks in countries which had a relatively large number of licensed banks (e.g. Bosnia and Herzegovina, Croatia and Serbia), has decreased significantly (chart 2).



In line with developments observed in EU acceding countries (Caviglia et al. 2002), authorities further opened banking sectors to foreign investors, mainly by privatising remaining state-owned banks.<sup>27</sup> At the end of 2001, foreign banks accounted for a large share of total assets and/or for the majority of banks in most countries in the region (chart 3). Conversely, the share of state-owned banks in total banking sector assets has significantly declined in recent years.

<sup>26</sup> Without adequate provisioning, minimal capital requirements lose their informational content. They provide adequate incentives only to the extent that they serve as a buffer against unexpected losses.

<sup>27</sup> An exception is Albania where foreign investors entered the market mainly via greenfield investments as, at the start of transition, the banking sector comprised only three state-owned banks. One of them was sold to foreign investors in 2000, the second liquidated in the late 1990s, while the Savings Bank is still state-owned. A detailed overview on financial sector developments in Albania is provided in Winkler (2000). Also in Serbia, most foreign banks licensed after 2000 started as greenfield operations.



Interestingly, the nationality of ownership changed in less than three years, as governments realised that bank failures were associated with substantial fiscal costs (Brixi et al. 1999; Tang et al. 2000).<sup>28</sup> Moreover, foreign investment is characterised by a clear regional pattern. With the exception of Moldova, most investors are euro area-based banks. The latter originate from Austria (e.g. Bank Austria Creditanstalt, Raiffeisen Zentralbank, Volksbank), France (e.g. Société Générale, Crédit Lyonnais), Germany (e.g. Commerzbank, as an investor in microfinance banks), Greece (e.g. National Bank of Greece) and Italy (e.g. UniCredito Italiano, Banca di Roma).<sup>29</sup>

The strong presence of euro area banks improves the financial sector's environment for two reasons. First, it allows the import of "reputational capital" (Hellman and Murdock, 1998) or "franchise value" (Demsetz, Saldenberg and Strahan, 1996). This intangible capital serves the same purpose as equity reported in the balance sheet, namely to align the interests of banks and depositors. Euro area banks would lose their money if they have bad lending practices. Second, foreign banks are unlikely to engage in connected lending as reputable foreign shareholders do not borrow from the local banks they have invested in (EBRD, 1998). As a result, foreign banks entry further hardens budget constraints imposed on the real sector.

*Most recent developments: preliminary signs of growth-supportive effect*

Although financial sectors' environment has improved, financial depth in Southeast Europe has only slowly increased (charts 4 and 5). Overall, it still lags behind that of EU acceding countries from Central and Eastern Europe. By the same token, financial depth is very much lower than in industrialised economies.<sup>30</sup> Last, financial deepening materialised mainly through monetisation rather than intermediation.

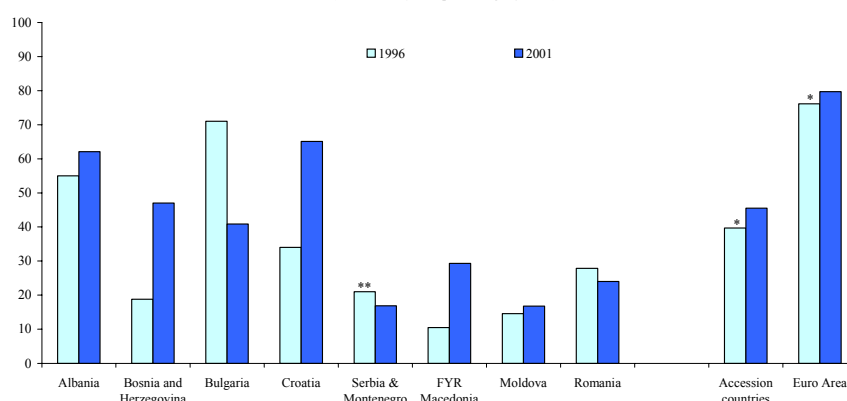
<sup>28</sup> In Croatia, for example, the Croatian National Bank intervened to address the difficulties of 17 distressed banks, accounting for 17% of bank assets, in 1998 and the first half of 1999. About 80 percent of deposits in the bankrupted banks (about 5.5% of broad money and 2% of GDP) were covered by deposit insurance, with payouts funded by the budget (IMF, 2000; Gomel, 2002).

<sup>29</sup> See Bank Austria Creditanstalt (2002) and Zeiting (2002).

<sup>30</sup> Turning to country-specific developments, in the countries of the former Yugoslavia, monetisation has slightly increased from comparatively high levels in the mid-1990s, whereas credit to the private sector has decreased from more than 30% of GDP in 1997 to less than 25% in 2001. Bulgaria has recovered steadily from the 1996/1997 crisis, both in terms of monetisation and intermediation. Romania and Moldova have basically

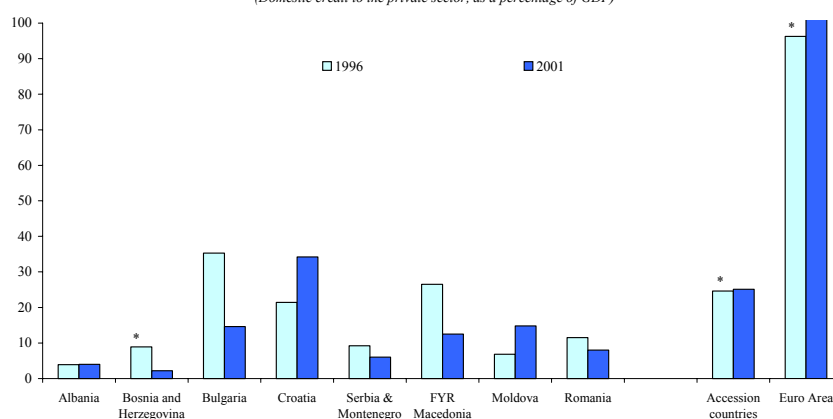


Chart 4: Monetisation in Southeast Europe  
(Broad money as a percentage of GDP)



Sources: EBRD, except for the Accession countries and the euro area (IMF and authors' calculations).  
Notes: (\*) In 1997; (\*\*) in 1999.

Chart 5: Financial intermediation in Southeast Europe  
(Domestic credit to the private sector, as a percentage of GDP)



Sources: EBRD, except for the Accession countries and the euro area (IMF and authors' calculations).  
Notes: (\*) In 1997; (\*\*) in 1999.

Monetisation increased for two reasons. First, the growing presence of reputable foreign banks in the region.<sup>31</sup> Second, the effect of the euro cash changeover, mostly in former Yugoslavia countries, where legacy currency cash, in particular Deutsche Mark banknotes, was circulating (Padoa-Schioppa, 2003; ECB, 2002). Indeed, in the wake of the cash changeover, authorities in the region encouraged households to deposit “under the mattress” legacy currency cash in banks rather than exchange them directly into new euro banknotes. Credit institutions, in particular foreign-owned banks, widely advertised euro-denominated accounts at attractive conditions. Households and firms used this opportunity to deposit their holdings to minimise risks and cost of the cash changeover, giving a large boost to the volume of deposits in the respective countries.<sup>32</sup>

hovered around low levels of financial development (around 20% of GDP for the monetisation ratio and between 5% to 15% of GDP for the intermediation ratio). Albania exhibits the largest discrepancy between the two financial depth indicators, monetisation reaching 60% of GDP, the highest ratio in the region, and intermediation standing below 10% of GDP, the lowest ratio in the region.

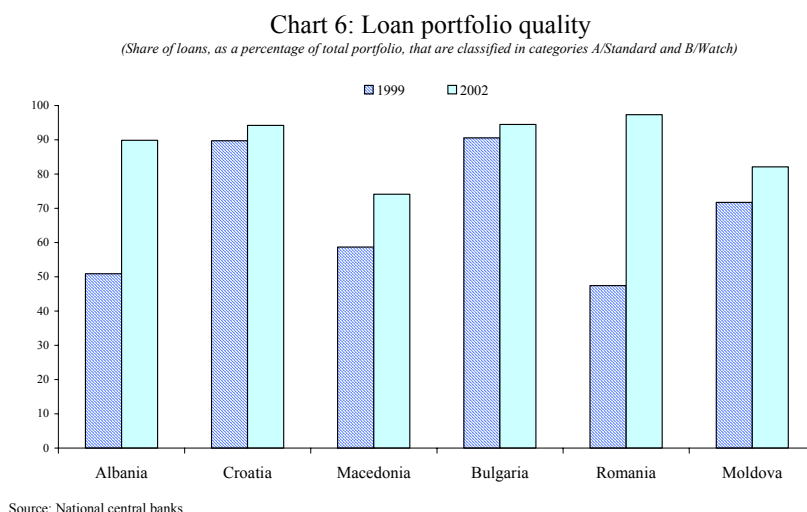
<sup>31</sup> The key contribution of foreign-owned banks in the region seems indeed the import of stability, based on the track-record and reputation of powerful parent institutions (Keren and Ofer, 2002; Grigorian and Manole, 2002).

<sup>32</sup> By contrast, in Montenegro, where foreign banks have so far played a limited role, the increase in deposits was smaller, suggesting that it was indeed the combination of reputable foreign banks and the euro cash changeover that contributed to the strong increase in bank deposits in Southeast Europe (Schobert, 2003).

In contrast, financial intermediation has remained subdued, even though there are recent signs of increased lending activity.

There are several reasons for the low level of financial intermediation:

- Cautious lending behaviour. Heavy losses faced in years of financial crisis and the taking over of banks' ownership by foreigners resulted in a reduction of banks' exposure to their traditional, not creditworthy, customers. As a consequence, loan portfolio quality has improved substantially since the late 1990s and/or remained at comparatively high levels (chart 6).<sup>33</sup>



At the same time however, banks have not correspondingly expanded their lending activities to the new private sector as most micro, small and medium-sized enterprises are fairly young, fragile and offer limited borrowing track-record (Klapper, Sarria-Allende and Sulla 2002).<sup>34</sup> Consequently, banks have been reluctant to consider them as creditworthy. There is anecdotal evidence instead that foreign-owned banks endeavour to “cherry-pick the best borrowers available on the market (especially those from their own countries of origin)” (Grigorian and Manole, 2002).<sup>35</sup> And at least initially, they seem to have focused their activities on wholesale banking and on activities that generate fees and commissions, such as international payment transactions, short-term trade credits and issuance of securities (Buch, 2002).<sup>36</sup>

<sup>33</sup> Of course, a substantial part of the improvement, e.g. in Albania and Romania, merely reflects the recapitalisation of banks and the taking over of bad loan portfolios by governments. Moreover, the period 1999-2001 is one of relative expansion, so that portfolios have yet to pass the stress test of an economic downturn.

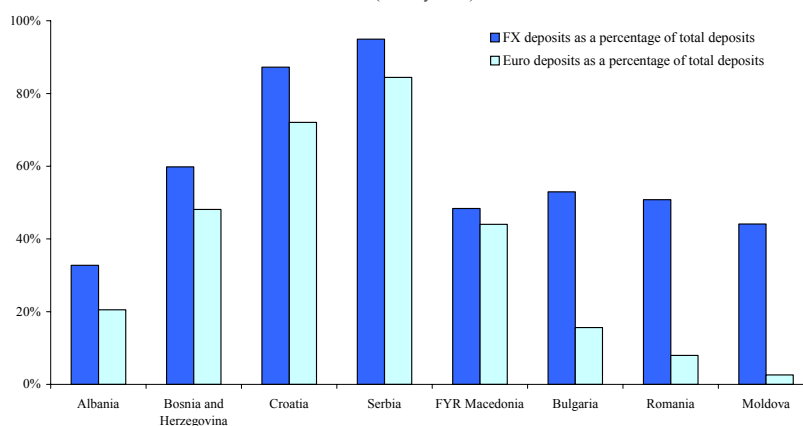
<sup>34</sup> The most prominent example in this regard is Albania, where almost the entire enterprise sector is based on micro and small businesses (Muent, Pissarides and Sanfey, 2000), many of them being unfamiliar with standard credit approval procedures. This may explain the particularly low level of financial intermediation in Albania compared to the rest of the region, as the standard credit technology routinely applied by banks in western markets does not fit with the characteristics of a large share of the enterprise sector (Winkler, 2000).

<sup>35</sup> See also Buch (1996).

<sup>36</sup> Of course, there are exceptions, both in terms of institutions and countries, with foreign banks being increasingly engaged in retail operations. Interestingly, Fries and Taci (2002) find that foreign-owned banks seem to be associated neither with stronger nor with weaker real growth in customer loans compared to local banks.

- Time required to adjust to the environment. Banks in the region have endeavoured to change procedures and risk management tools, which takes time to implement, all the more so as banks are short of adequately trained staff with experience in selecting, analysing and monitoring clients. Since until very recently these skills were not needed, many banks, even if they are now privatised and have appropriate governance, remain unable to provide financial intermediation services on a large scale.
- Room for improvement in the legal framework. Notwithstanding significant progress, the legal and institutional environment in some countries of the region remains weak. The EBRD rating on legal indicators regarding commercial law and financial regulation ranks several countries of the region last among transition countries (EBRD, 2002).
- Short maturity of deposits and potential of currency mismatch. The short maturity of deposits, which are to a significant extent denominated in foreign currency (chart 7), severely restricts lending, both in absolute volume and in maturity, as banks are eager and required by respective regulatory acts to avoid larger maturity and/or explicit or implicit currency mismatches.<sup>37</sup>

Chart 7: Foreign exchange deposits in total deposits  
(January 2002)



Source: Padoa-Schioppa (2003).

- High demand for liquid and risk-free assets. After the experience of financial crises and given the nature of their deposits, banks have preferred to transform them into highly liquid assets with a zero or low risk weight, e.g. deposits with a foreign bank or, when available, domestic treasury bills (Gomel, 2002).<sup>38</sup> Together with high minimum capital requirements, recapitalisation efforts and foreign investments, this has led to a strong increase in capital adequacy ratios in the region (table 5).

<sup>37</sup> An implicit currency mismatch is defined as a situation when banks transform foreign currency deposits into foreign currency loans to borrowers without foreign currency cash flows.

<sup>38</sup> This behaviour is typical of most transition countries in a post-crisis period. See OECD (1997), EBRD (1998) and Berglof and Bolton (2002).

Table 5: Capital adequacy ratio in Southeast Europe, 1998 - 2002

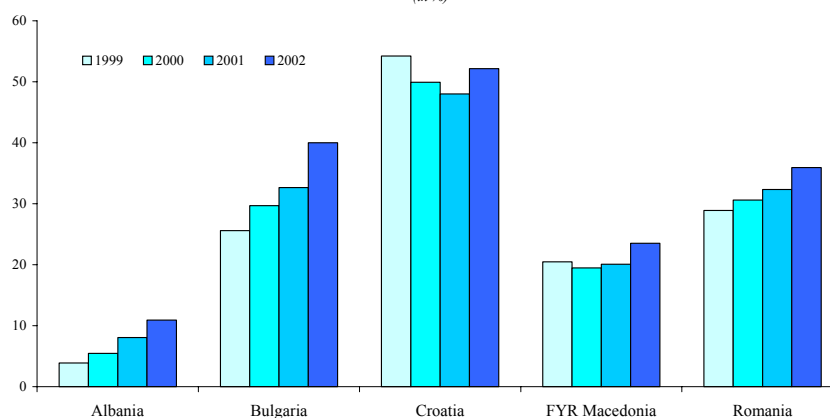
	1998	1999	2000	2001	2002
Albania	-2	8	42 <sup>1</sup>	35	32
Bosnia				32	-
Bulgaria	37 <sup>2</sup>	41	36	31	25
Croatia	13	21	21	18	17
FYR Macedonia	26	29	37	34	-
Serbia and Montenegro	0	0	1	22	-
Moldova	0	0	49	43	-
Romania	10	18	24	29	25

<sup>1</sup> The 1999 increase partly reflects the capitalisation of the Savings Bank by the government.

<sup>2</sup> 1996: 5.7%, 1997: 28.9%.

Having said that, and turning to country-specific dynamics, in the most recent period credit growth has been in some countries relatively rapid. In Bulgaria, the share of loans to the private sector in banks' total assets, albeit starting from a low base after the 1996/1997 banking crisis, has steadily increased.<sup>39</sup> Likewise, in Croatia, after having declined further to the 1999 banking crisis, the share of loans to the private sector in banks' total assets increased in 2002, in particular due to the euro cash changeover.<sup>40</sup> In both countries, concerns have been expressed about the rapid recent expansion of credit (IMF, 2003, Croatian National Bank, 2003).<sup>41</sup>

Chart 8: Share of loans to the private sector to banks' total assets  
(in %)



Source: National central banks and authors' calculations.

This notwithstanding, in other countries for which evidence is available, the share of loans to the private sector in banks' total assets remains lower, albeit also increasing. More

<sup>39</sup> At least partly, credit growth reflects attempts by banks to diversify their loan portfolios by expanding consumer and mortgage lending. For example, in Bulgaria, the share of consumer credit and residential mortgages in the loan portfolio of banks increased substantially, from 2% end-1995 to 20% in March 2002 (IMF, 2002a).

<sup>40</sup> For instance, in Croatia, the substantial increase in euro-denominated deposits in the wake of the cash changeover was equivalent to a 10% of GDP capital inflow. This inflow contributed to a credit boom and supported growth (Croatian National Bank, 2003).

<sup>41</sup> In Croatia, the central bank took measures in early 2003 to slow down credit expansion and limit external debt (Croatian National Bank, 2003).

importantly, in many countries monetisation ratios remain almost twice as high as intermediation ratios. This contrasts with industrialised countries where both ratios tend to be of comparable magnitude, or – as it is the case in the euro area – intermediation is higher than monetisation.

In a nutshell, the improvement in financial sectors’ environment in Southeast Europe is only slowly accompanied by increasing intermediation. Hence, it comes at not surprise that over the period our econometric estimates fail to detect evidence of growth-supportive effects of finance.

## 5. Conclusions

Applying the literature’s standard econometric framework does not provide evidence on finance’s growth-supportive effects in Southeast Europe in the first decade of transition. As this result contrasts with historical evidence for a large number of countries, our interpretation of this finding is based on the following considerations:

- In the early years of transition, financial sectors in Southeast Europe were indeed characterised by relative depth and poor environment, partly due to the socialist legacy and partly to the ill-conceived financial sector reforms of the early 1990s.
- Further to the outbreak of financial crises, financial sectors’ environment has substantially improved, with harder budget constraints, tighter banking supervision and regulation and the opening to foreign banks.

Overall, there are encouraging signs that financial development in the region, based on financial deepening and a good environment, has started. To wrap-up, in terms of our conceptual framework, financial sectors in Southeast Europe remained throughout most of the 1990s in the top right quadrant of table 6, moved shortly to the top left quadrant in the crises years, then to the lower left quadrant with the improvement in their environment and, eventually, have just started to reach the lower right quadrant.

Table 6: The evolution of financial sectors in Southeast Europe since the start of transition:

		Financial depth	
		Shallow	Deep
Quality of the environment	Poor	<i>Non-developed financial sector</i>	<i>Socialist financial system</i>
	Good	<i>Stable financial sector, but not actively growth-supportive</i>	<i>Developed and growth-supportive financial sector</i>

Source: authors’ own compilation.

However, in many countries of the region, financial intermediation, in particular to businesses remains low. Domestic policy makers and international institutions may take this evidence as a recommendation to promote lending activities, in particular to micro, small and medium-sized businesses. While there are several ways to achieve this goal (Erhardt, Schuette and Von Pischke, 2003), several caveats apply. As emphasised in World Bank (2001), financial

development is not a policy choice variable. Attempts to boost it artificially by engineering too rapid a growth in domestic credit contribute to inflation, exchange rate depreciation as well as doubtful loans and banks insolvency. The expansion of lending activities must not be accompanied by a return to bad lending practices.

Indeed, in some countries, recent rapid credit growth, which has been identified in the literature as an early warning indicator of potential financial crises, needs to be monitored. With the passing of time, this could provide the first stress test of whether the financial sector environment has indeed changed for the better and credit quality has really improved. In the remaining and majority of countries, policy should probably continue to focus on alleviating the bottlenecks to financial intermediation by guaranteeing stable macroeconomic conditions and a sound institutional legal and supervisory environment. This policy should positively contribute to financial development, in a proper sense, in the region.

## Data appendix to the empirical estimates

- GDP per capita growth: log difference of GDP per capita, in constant local currency. Source: IMF, *World Economic Outlook*; data available from 1993 to 2001. However, for Bosnia and Herzegovina and Serbia and Montenegro, for which data from this source were not available, data were taken from the World Bank's *World Development Indicators* over 1995-2000.
- Inflation: log difference of the GDP deflator. Sources: IMF, *World Economic Outlook*; data available from 1993 to 2001. However, for Bosnia and Herzegovina and Serbia and Montenegro, for which data from this source were not available, data were taken respectively from IMF *Country Report on Bosnia and Herzegovina* No. 03/4 and EBRD (2002); data were available respectively over 1998-2001 and 1994-2001.
- Share of private sector to GDP: Source: EBRD (2002).
- Initial human capital: 1993 gross secondary school enrollment rate, as a percentage. Source: *World Development Indicators*, World Bank.
- Initial real GDP per capita: natural logarithm of GDP per capita in 1993 (1995 for Bosnia and Herzegovina and Serbia and Montenegro, due to data unavailability), in constant 1995 US dollars. Source: *World Development Indicators*, World Bank.
- Intermediation ratio: credit to the private sector as a percentage of GDP. Source: EBRD (2002). Data available from 1993 to 2001, except for Bosnia and Herzegovina (1999-2001) and Serbia and Montenegro (1996-2001).
- Monetisation ratio: broad money as a percentage of GDP. Source: EBRD (2002). Data available from 1993 to 2001, except for Bosnia and Herzegovina (1994-2001) and Serbia and Montenegro (1999-2001).
- War: dummy variable equal to 1 in a war year (Bosnia and Herzegovina and Croatia: 1993, 1994 and 1995; Serbia and Montenegro: 1993, 1994, 1995 and 1999; FYR Macedonia: 2001) and 0 otherwise. However, due to missing values for other variables only there are only 5 non-zero observations that enter the regressions (Croatia: 1993, 1994, 1995; Serbia and Montenegro: 1999; FYR Macedonia: 2001).

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