FINANCIAL DEVELOPMENT IN CENTRAL, EASTERN AND SOUTH-EASTERN EUROPE

A number of countries in central, eastern and south-eastern Europe have seen their financial sectors grow rapidly in recent years, including a rapid expansion of credit to the private sector. This article reviews the main factors behind financial development in the region, including the process of transition from a centrally planned to a market economy, macroeconomic and financial sector policies and cyclical developments. It provides an overview of the key characteristics of the financial sectors, reviews recent patterns of growth in domestic bank credit and looks at the macroeconomic and financial stability implications. The latter may become of considerable importance, given the increasing level of financial integration between the euro area and central, eastern and south-eastern Europe. Financial development and credit growth in the region call for continued close monitoring. At the same time, the development of financial systems can be expected to promote more productive investment and economic growth in the region.

1 INTRODUCTION

Financial development in central, eastern and south-eastern Europe has progressed at a rapid pace in recent years, driven by profound changes in the ownership structure and the lending environment of the banking sector, by financial sector and macroeconomic policies, and by cyclical factors.[1] As a result, businesses and consumers have gained increased access to a wide range of products, most importantly in the fields of consumer and mortgage lending. Foreign-owned banks continue to increase their presence in the region, and non-bank financial institutions, such as investment and pension funds, are being established for the first time. To a great extent, these developments are the result of the progress made in the transition from centrally planned to market economies in the region. In the case of Turkey, the only non-transition economy in the region, its financial sector has also seen a major transformation following the crisis in 2000-01 and the measures taken to restructure the financial sector in its wake.

As will be discussed in this article, since the 1990s and in parallel with the overall progress made in transforming their economic structures, countries in this region have seen substantial changes in the structure of their financial markets and in their regulatory and supervisory institutions. The main factors behind these changes are discussed in more detail in Section 2. Thereafter, Section 3 provides a snapshot of the state of financial development in the region. Section 4 takes a closer look at the evolution of the financial sectors in the region over time, in particular with regard to the growth of credit to the private sector. Section 5 puts the analysis in context by reviewing the macroeconomic and financial stability implications of financial development, while Section 6 concludes.

2 MAIN FACTORS BEHIND FINANCIAL DEVELOPMENT IN THE REGION

Financial sectors in the region have been influenced by a mixture of structural factors, mainly related to the transition from a centrally planned to a market economy, macroeconomic and financial sector policies and cyclical developments. As the impact of these determinants has partially overlapped, they should be considered jointly when assessing financial development in the region.

1 For the purposes of this article, the region of central, eastern and south-eastern Europe is seen as comprising the following countries: the former planned economies that joined the European Union in 2004, i.e. the Czech Republic (CZ), Estonia (EE), Latvia (LV), Lithuania (LT), Hungary (HU), Poland (PL), Slovakia (SK) and Slovenia (SI); the acceding countries, i.e. Bulgaria (BG) and Romania (RO); the countries formally recognised by the European Council to be candidates for EU entry, i.e. Croatia (HR), the Former Yugoslav Republic of Macedonia (MK) and Turkey (TR); and potential EU candidate countries, i.e. Albania (AL), Bosnia and Herzegovina (BA) and Serbia and Montenegro (CS). Montenegro was recognised as a sovereign state by the European Union in June 2006. Malta and Cyprus are not included, as they have not experienced the same phenomenon; their financial markets are more developed, with credit-to-GDP ratios close to that of the euro area and more moderate credit growth.

Financial development in the region – with the exception of Turkey – has gone through a number of stages in recent years. In the early phase of transition, a thorough restructuring of the financial sector was necessary, as state-owned banks had to be restructured and directed lending ended. This was followed, in some cases, by a rapid privatisation of the banking sector and an expansion of financial markets, often set up from scratch. However, the institutional and legal environment was often inadequate, leading to cases of connected lending and the setting-up of so-called "pocket banks", which often acted as agents of a single firm or conglomerate. The immature banking system often suffered from inadequate regulation, malpractice and a lack of experience on the part of the agents involved.[2] All of these factors resulted in a number of lending booms during these early years of the transition. Owing to the low quality of such lending, periods of credit expansion were often followed by a credit crunch. As a result, a number of countries in the region faced outright banking crises during the 1990s.

More recently, the entry of foreign banks, mainly from the EU, has been the main structural factor shaping financial sector development in the region. It has led to a substantial increase in the supply of credit and the range of financial products available in the economies of the region, reflecting an import of capital, reputation, knowledge and expertise. While the internationalisation of the region's financial sector, i.e. its integration with EU financial markets, has facilitated access to foreign funding, mainly from parent banks, domestic deposit mobilisation has benefited from an increase in confidence in the domestic banking sector. In addition, favourable income prospects have also increased the demand for credit by both firms and households. Finally, competition in the banking sectors has intensified, as foreign banks have been looking for shares in markets offering higher returns on equity than in the home country. This has been accompanied by a consolidation of banking sectors in a number of countries in the region.

Improvement of the legal system has been another important structural factor fostering financial development. In that respect, the adoption of standards and regulations in line with the EU supervisory framework has been essential.

In addition to the factors affecting supply and demand for credit described above, several policy-related factors have shaped credit dynamics in the region. This relates first and foremost to financial sector policies, i.e. the authorities' approach to deregulation, privatisation and liberalisation of the financial sector. Moreover, macroeconomic policies have also played a role. Both monetary policy, which has a direct impact on financial development by changing the cost of borrowing through changes in policy interest rates or reserve requirements, and exchange rate policy may have had an impact. For example, it has been observed that countries pursuing more fixed exchange rate regimes have generally experienced faster credit growth. As this has often been associated with a high share of foreign currency borrowing, the perception of lower exchange rate risk in countries with a fixed exchange rate regime, or even currency board arrangements, might have been a stimulating factor. Financial development has also been influenced by fiscal policy in several countries of the region, most directly via measures related to the housing market, such as the tax deductibility of mortgage repayments and mortgage loan subsidies. Moreover, privatisation and public finance consolidation efforts in several countries of the

2 For a discussion of these issues in the academic literature, see E. Berglöf and P. Bolton (2002), "The great divide and beyond: Financial architecture in transition", *Journal of Economic Perspectives* 16 (1), pp. 77-100. The interested reader is also referred to the following ECB publications covering the banking and financial sectors in some of the countries of the region covered in this article: "Banking structures in the new EU Member States" (January 2005), "EU Banking Structures" (October 2006) and "EU Banking Sector Stability" (November 2006). In addition, the ECB Occasional Paper No 48 by the International Relations Committee Task Force on Enlargement deals with "Macroeconomic and financial stability challenges for acceding and candidate countries" (July 2006).

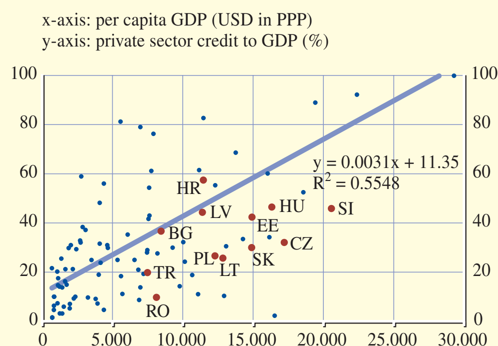
region have provided room for further credit expansion.[3]

Finally, cyclical factors have been an important determinant of financial development in recent years, as most countries in the region have experienced strong real GDP growth. Demand for credit has been further stimulated by decreasing borrowing costs, reflecting progress in domestic macroeconomic stabilisation and low interest rates in global financial markets, as well as rising asset prices (in particular of housing) in an environment of ample global liquidity. These cyclical effects have been amplified by transition-related factors, namely the emergence of new firms with a strong demand for credit and the entry of households into the consumer loan and mortgage credit markets in the light of current and expected future income gains. The predominance of foreign ownership in the respective banking sectors also implies that, in addition to domestic considerations, the cyclical position in home countries as well as the financial situation of the parent bank matter for financial development. In general, local bank subsidiaries may be expected to ease lending conditions when economic conditions in the home country of the parent bank are subdued, while the exposures in host markets are likely to be curtailed in the event of rising financial fragility of the respective parent banks.[4]

Besides the previously discussed mechanisms which increase credit demand and supply, a natural catch-up effect should be taken into account, as these countries have undergone a financial deepening process starting from relatively low levels of private sector credit-to-GDP ratios and economic development (GDP per capita). Hence, as the literature on the growth-finance nexus suggests, credit expansion will accompany economic expansion as these countries catch up with more developed economies. This is presented in more detail in the following section.

Chart 1 Ratio of domestic bank credit to the private sector to GDP and per capita GDP (2004)

(118 countries)



Source: IMF.
Note: Red dots refer to countries in central, eastern and south-eastern Europe for which data are available.

3 THE STATE OF FINANCIAL DEVELOPMENT IN THE REGION

Most of the countries in the region still exhibit lower levels of financial development compared not only with developed economies but also with countries with a similar level of per capita income. As shown in Chart 1, in 2004, with the exception of Croatia, all countries in the region (for which data were available) stood below a regression line fitted for the correlation between the ratio of bank credit to the private sector to GDP and per capita income across 118 countries for which data were available. This relatively low level of financial intermediation relative to per capita income is a reflection of the often turbulent early stages of transition described in the introduction. As a result, the banking sectors in the region were not only small but also had an asset structure in which credit to the private sector was not heavily weighted.

3 See P. Backé and T. Zumer (2005), "Developments in credit to the private sector in central and eastern European EU Member States: Emerging from financial repression – a comparative overview", Focus on European Economic Integration, 2/05, Oesterreichische Nationalbank, October.

4 R. de Haas and I. Naaborg (2005), "Internal Capital Markets in Multinational Banks: Implications for European Transition Countries", De Nederlandsche Bank Working Paper No 51, and R. De Haas and I. van Lelyveld (2005), "Internal Capital Markets and Lending by Multinational Bank Subsidiaries", De Nederlandsche Bank Working Paper No 101.

Table 1 Assets held by banks and non-bank financial institutions in central, eastern and south-eastern European countries (2005)

	Total assets (EUR billions)	Share of total assets in GDP (%)	Share of bank assets in total assets (%)
EU countries			
Czech Republic	119.3	121.2	88.0
Estonia	13.2	125.5	89.5
Latvia	16.0	125.1	97.3
Lithuania	13.9	67.3	94.6
Hungary	96.1	109.4	77.7
Poland	212.9	87.5	71.4
Slovenia	35.7	130.5	84.2
Slovakia	43.3	113.5	84.1
Acceding countries			
Bulgaria	19.6	91.3	85.8
Romania	42.1	53.2	84.1
Candidate countries			
Croatia	44.5	144.0	81.0
Former Yugoslav Republic of Macedonia	2.5	62.5	92.0
Turkey	294.9	102.7	86.8
Potential candidate countries			
Albania	4.2	62.3	78.6
Bosnia and Herzegovina	7.5	98.4	81.3
Serbia	10.5	57.9	88.6
Memo item			
Euro area	28,550.7	371.0	71.5

Sources: ECB (for EU countries' banking sector data), EBRD, IMF and national sources.
Notes: Non-harmonised data for non-EU countries.

Another key characteristic of financial sectors in the region is that they remain largely bank-based. While non-bank financial institutions have been growing in a number of countries, they still only account for a relatively small share of total financial assets, as shown in Table 1.

The progress made in the transition process differs, however, across countries in the region. One way of gauging such progress is to look at the indicator for banking sector reform regularly compiled by the European Bank for Reconstruction and Development (EBRD), as reported, among other selected indicators for the banking sector, in Table 2. The EBRD transition indicator ranges from 1 to 4.3, with 1 defined as little progress in banking sector reform and 4.3 representing full convergence of banking laws and regulations with Bank for International Settlements (BIS) standards and the availability of a full set of banking services. For the countries in the region, the EBRD indicator suggests that banking sector reform is almost complete in the EU countries of the region, as well as in Bulgaria and Croatia.

Other countries in the region, however, need to go further to complete the transition. In Turkey, for which such a transition indicator from the EBRD is not available, a bank restructuring process was launched with the support of the International Monetary Fund and the World Bank after the 2001 banking crisis.

With the exception of Turkey, the privatisation of state-owned banks has been largely completed. Among the new EU Member States, only in Poland and Slovenia do state-owned banks still account for more than 10% of total banking assets, according to the latest data compiled by the EBRD. Progress has also been made in privatisation among non-EU countries in the region. Only in Serbia do state-owned banks still hold more than 10% of the total assets of the banking sector.

Table 2 Selected banking sector indicators for central, eastern and south-eastern European countries (2005)

	Number of credit institutions (CIs)[1]	Branches per 100,000 inhabit-ants	State-owned banks[2] (% of total banking sector assets)	Foreign-owned banks[3] (% of total banking sector assets)	Five largest CIs[4] (% of total banking sector assets)	Return on assets	Return on equity (%)	EBRD index of banking sector reform[6]
EU countries								
Czech Republic	56	18	3	96	65	1.3	17.7	4.0
Estonia	11	17	0	99	98	2.6	8.6	4.0
Latvia	23	25	4	48	67	1.9	27.2	3.7
Lithuania	78	24	0	92	81	0.8	12.3	3.7
Hungary	215	31	7	63	53	2.7	35.4	4.0
Poland	739	13	19	67	49	1.4	18.7	3.7
Slovenia	25	35	13	19	63	0.8	16.2	3.3
Slovakia	23	21	1	93	68	1.4	9.5	3.7
Acceding countries								
Bulgaria	34	9	2	80	51	2.0	21.6	3.7
Romania	33	14	6	62	60	1.7	12.9	3.0
Candidate countries								
Croatia	34	24	3	91	74	1.7	15.6	4.0
Former Yugoslav Republic of Macedonia	20	14	2	53	68	1.3	8.1	2.7
Turkey	47	9	35	6	63	1.1	8.6	n.a.
Potential candidate countries								
Albania	16	3	3	94	83	1.3	21.1	2.7
Bosnia and Herzegovina	33	18[5]	4	81	64	0.7	6.4	2.7
Serbia	40	4	24	66	50	0.9	5.8	2.7
Memo item								
Euro area	6,403	54	n.a.	16	41	0.5	13.9	n.a.

Sources: ECB (for EU countries' banking sector data), EBRD, IMF and national sources.
Notes: Non-harmonised data for non-EU countries.
1) Refers to banks in non-EU countries.
2) 2004 data from the EBRD.
3) 2004 data from ECB, "EU Banking Sector Stability", October 2005.
4) Refers to the four largest banks in Croatia and to the three largest banks in the Former Yugoslav Republic of Macedonia.
5) Refers to the Federation of Bosnia and Herzegovina only.
6) The index ranges from 1 to 4.3, with 4.3 representing full convergence of banking laws and regulations with BIS standards and the availability of a full set of banking services.

In many cases privatisation has been accompanied by an increased participation of foreign banks in the region. Subsidiaries or branches of foreign banks account for more than 90% of banking sector assets in the Czech Republic, Estonia, Lithuania, Slovakia, Croatia and Albania, while the figure is above 80% in both Bulgaria and Bosnia and Herzegovina. In addition, the recent sale to a foreign buyer of a large bank in Romania – announced at the end of 2005 but not completed until August 2006 – is estimated to have increased the asset share of foreign-owned banks in that country to close to 90%. In Turkey, foreign bank ownership remains relatively limited. However, foreign banks have recently acquired majority stakes in some Turkish banks.

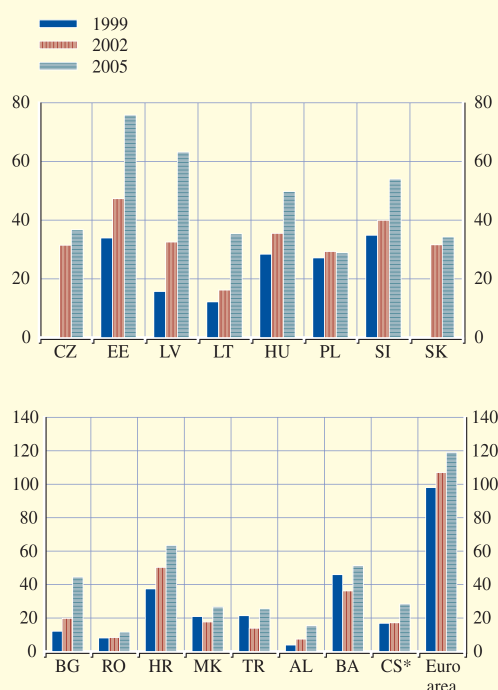
While the banking systems of the countries in the region have a number of common characteristics, they also display a number of distinct features. The degree of concentration, as measured by the share of assets held by the five largest banks, varies widely. Such variation is partly due to differences in the size of the banking markets. Thus, the degree of concentration tends to be higher in some of the countries with smaller banking sectors, such as Estonia, Lithuania, Albania and the Former Yugoslav Republic of Macedonia. Among the EU countries in the region, only the Czech Republic, Hungary and Poland have banking sectors that hold assets above €50 billion. Of the non-EU countries, this is only the case for

the Turkish banking sector, which is by far the largest banking market in the region.

The wide variation in the depth of financial intermediation, as shown in Chart 1 above, also helps to explain the differences observed in terms of branch networks in the region. Except for Croatia, the candidate and potential candidate countries have fewer branches per 100,000 inhabitants and lower assets per bank employee than the EU countries in the region.

All of these country-specific features must also be borne in mind when interpreting the data on profitability. For example, there is some empirical evidence pointing to a positive relationship between foreign ownership and profitability, at least in the case of the new EU countries. In addition, the interplay between concentration and interest rate margins is a complex one, as there is some evidence – again, at least in the case of the EU countries – that margins are among the lowest in highly concentrated markets and are the highest in markets with a lower degree of concentration.[5] As the banking sector matures, consolidation takes place and, hence, concentration increases. At the same time, the high margins observed during the early and volatile period of the transition come down to levels closer to those observed in more developed banking sectors.

Chart 2: Credit to the private sector as a percentage of GDP



Source: ECB for EU countries and the euro area, IMF (for non-EU countries except Serbia, for which national sources are reported).
Notes: * Refers to Serbia. Data for non-EU countries refer to claims on private sector as reported in the monetary survey of the IFS.

4 GROWTH OF DOMESTIC BANK CREDIT TO THE PRIVATE SECTOR IN THE REGION

The process of transition has implied a number of distinct phases in the evolution of the financial sectors of the region. However, not all countries under review have gone through all of those phases or gone through them at the same pace.[6] In addition, not all of the countries have dealt in the same way with the legacy of the early phases of transition, when much of the lending that took place was of poor quality. All of this implies that cross-country comparisons are inherently difficult and that any analysis of recent developments will necessarily be influenced by the choice of the initial period of observation.

In general, however, there has been a rapid acceleration in the process of financial deepening over the last three to four years, in particular with regard to bank credit to the private sector. From 2002 to 2005 the ratio of private sector loans to GDP increased by 25 percentage points or more in Estonia, Latvia

5 For a discussion of these issues regarding the relationship between ownership, concentration and profitability, see ECB, "Banking structures in the new EU Member States" (January 2005).

6 See C. Cottarelli, G. Dell'Ariccia and I. Vladkova-Hollar (2005), "Early birds, late risers, and sleeping beauties: Bank credit growth to the private sector in Central and Eastern Europe and in the Balkans", *Journal of Banking and Finance*, 29 (1), pp. 83-104.

Table 3 Real growth of bank credit[1)]

(annual percentage changes (unless otherwise stated); nominal growth adjusted for consumer price inflation)

	Memo item	To the private sector			Memo item	To households		
	Credit to the private sector in 2003 (% of GDP)	2003	2004	2005	Credit to the household sector in 2003 (% of GDP)[3)]	2003	2004	2005
EU countries								
Czech Republic	32	-2	9	23	9	28	38	37
Estonia	55	24	24	30	15	46	48	62
Latvia	40	23	30	38	11	56	59	77
Lithuania	23	45	54	37	8	n.a.	n.a.	83
Hungary	43	13	19	14	12	37	29	17
Poland	30	-9	0	16	12	-4	24	24
Slovenia	43	1	15	19	13	n.a.	n.a.	28
Slovakia	32	5	10	19	10	n.a.	n.a.	41
Acceding countries								
Bulgaria	28	40	43	25	7	78	51	40
Romania	14	118	15	72	4	215	45	66
Candidate countries								
Croatia	71	13	11	16	40	26	16	17
Former Yugoslav Republic of Macedonia	18	13	8	20	4	58	63	41
Turkey	15	29	43	33	10[2)]	56	87	56
Potential candidate countries								
Albania	7	28	34	70	2	69	70	75
Bosnia and Herzegovina	31	31	32	28	16	34	33	28
Serbia	16	9	47	50	3	74	118	85
Memo item								
Euro area	109	3	4	6	47	4	6	8

Sources: ECB (for EU countries' banking sector data), IMF and national sources (for non-EU countries).
Note: Non-harmonised data for non-EU countries.
1) For the euro area and the EU countries, Table 3 shows credit (i.e. loans plus securities) to the private sector and loans to households by monetary financial institutions. For non-EU countries, the table shows credit to the private sector and credit to households by banks, excluding non-bank financial institutions, for which data availability is limited.
2) Refers to total household liabilities as a percentage of GDP in 2005.
3) 2004 data for Lithuania, Slovenia and Slovakia.

and Bulgaria and by more than 10 percentage points in Lithuania, Hungary, Slovenia, Bosnia and Herzegovina, Croatia, Serbia and Turkey (see Chart 2).

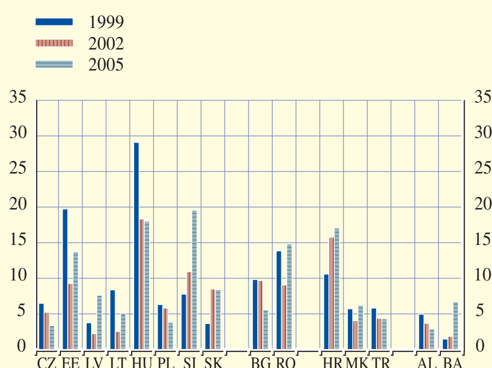
Table 3 provides a more detailed picture of the evolution of the growth of bank credit to the private sector, adjusted for inflation, during the last three years. It also provides the comparable growth rates for credit to households, a component of private sector credit that has seen particularly fast growth, providing further evidence on the main driving forces behind credit growth in the region.

In real terms, credit to the private sector has grown at double-digit rates in most countries in the region over the last three years. This is to some extent the result of base effects, as in many countries the initial starting level of credit to the private sector was very low or shrank after crisis situations such as that in Turkey. Thus, it is not surprising that growth has been particularly fast in some of the countries with less developed financial sectors, such as Albania or Serbia. A similar caveat must be borne in mind when examining the growth of credit to households, as reported in the right-hand panel of Table 3.

At the same time, real credit growth has also been rapid in countries where the starting levels of financial intermediation were relatively high. For example, in Croatia growth rates of credit to the private sector were close to 30% in real terms in 2003 and triggered a series of measures

Chart 3 International claims of euro area banks on the banking sectors of countries in central, eastern and south-eastern Europe

(as a percentage of each country's total banking sector liabilities)



Sources: BIS, IMF and ECB calculations.
Note: Data not available for Serbia and Montenegro.

on the part of the authorities to contain such developments.

In many countries, the asset structure of the banking sector still has a significant component of holdings of securities such as Treasury bills and other liquid assets. In this regard, the rapid increase of private sector credit reflects, in part, a move towards more traditional lending activity by the banking sector. In some cases, however, the increase in lending to the private sector has been funded not via a reduction of other assets, but through an increasingly negative net foreign asset position. Banks in the region have engaged in substantial borrowing from abroad, often from their parent banks, in order to finance the expansion of credit.

Table 4 Breakdown of the stock of domestic bank loans to the private sector by type of borrower, currency and maturity

(as at end-2005)

	Domestic bank loans to the private sector[1] (% of GDP)	Share of domestic bank loans to the private sector by type of borrower			Foreign currency loans (% of total loans to households and NFCs)	Short-term loans (% of total loans to households and NFCs)
		Non-financial corporations (NFCs)	Households	Other financial institutions		
EU countries						
Czech Republic	37	51	40	9	10	26
Estonia	72	42	41	17	79	9
Latvia	69	49	40	11	70	13
Lithuania	41	55	32	13	65	16
Hungary	49	52	35	13	46	25
Poland	29	44	51	4	26	28
Slovenia	56	67	28	5	56	29
Slovakia	35	54	36	11	23	30
Acceding countries						
Bulgaria	45	50	29	21	47	23
Romania	12	62	32	6	58	36
Candidate countries						
Croatia	62	40	57	3	76[2]	20
Former Yugoslav Republic of Macedonia	27	63	29	8	25	45
Turkey	28	n.a.	n.a.	0	31	50
Potential candidate countries						
Albania	15	68	32	1	74	28
Bosnia and Herzegovina	47	48	51	1	69[2]	24
Serbia	28	69	30	0	14	45
Memo item						
Euro area	104	41	51	8	3	18

Sources: ECB (for the euro area and the EU countries), IMF and national sources (for the non-EU countries).
Note: Non-harmonised data for the non-EU countries.
1) Refers to loans to private non-financial corporations, households, other financial institutions and non-profit institutions serving households. Excludes loans to the government or to public enterprises.
2) Including loans in local currency for which payments of interest and repayments of principal are indexed to foreign currency.

As shown in Chart 3, which captures only loans from euro area banks to banks in the region, the importance of this source of financing has been increasing in a number of countries. Given that banks are required to maintain a net open foreign exchange position within certain limits, the rise in banks' foreign liabilities has typically been matched with domestic loans that are denominated in foreign currency, thus helping to explain the relatively high share of foreign currency lending observed in the region (see Table 4). In half of the countries in the region, loans denominated in foreign currency account for more than half of total loans to households and non-financial corporations. The increased participation of foreign banks in the region may have contributed to the phenomenon of foreign currency lending observed there.

Table 4 also shows how domestic bank loans to the private sector are split among different agents of the private sector (non-financial corporations, households and other financial institutions). The relatively low share of total loans to the private sector accounted for by households reflects the effects of the transition and catching-up processes, as well as the still limited development of some lending areas, such as mortgage lending. This helps to explain the still high share of short-term loans in total loans to households and non-financial corporations.

5 MACROECONOMIC AND FINANCIAL STABILITY IMPLICATIONS

Experiences with former episodes of rapid financial sector development in mature and emerging market economies suggest a number of implications for both macroeconomic and financial stability. Starting with the macroeconomic implications, credit expansion has typically been found to be positively linked with economic growth. A broad consensus in the literature suggests that financial development is linked to growth by promoting capital accumulation and/or by exerting a positive impact on the pace of productivity growth. In this regard, it is noteworthy that financial development in the region has gone hand in hand with strong output growth.

While financial development has been found to generally be positively linked with growth, historical evidence and academic research also suggest that episodes of strong credit growth have at times been associated with substantial macroeconomic risks. In particular, these risks relate to an overheating economy and, related to this, a worsening of the current account. Overheating generally results from a surge in domestic demand, consumption and investment which is not accompanied by an equally large supply response and therefore leads to inflationary pressures. Rising current account imbalances may be caused by stronger import demand and a loss of competitiveness due to higher inflation. Together with an increasing level of external debt, this could make the economy vulnerable to sudden stop phenomena and balance of payments crises.

Besides its impact on macroeconomic developments, rapid credit expansion can have important implications for financial stability.[7] Many banking crises have been preceded by episodes of rapid or excessive credit growth, especially in emerging economies.[8] Several theoretical explanations exist as to why credit booms are associated with a higher probability of banking distress. According to one main strand of the literature, this relationship may be attributed to the pro-cyclicality of bank lending behaviour. Risks may be underestimated during expansionary phases of the business cycle, thereby resulting in loosening credit standards and a lower average quality of borrowers. This may lead to higher credit losses when the next

7 Empirical research has established that high credit growth is one of the main predictors of macroeconomic and financial turbulence. See IMF (2004), "Are Credit Booms in Emerging Markets a Concern?", *World Economic Outlook* (April).

8 See, for example, G. Kaminsky and C. Reinhart (1999), "Twin Crises: The Causes of Banking and Balance-of-Payments Problems," *American Economic Review*, vol. 89(3), pp. 473-500, and D. Ottens, E. Lambregts and S. Poelhelke (2005), "Credit Booms in Emerging Market Economies: A Recipe for Banking Crises?", De Nederlandsche Bank Working Paper No 46.

economic downturn occurs. Risks may also be undervalued as a consequence of the "financial accelerator" mechanism.[9] Over-optimism about future returns, triggered by, for instance, a positive productivity shock, could boost asset valuations and thus firms' net worth, which then feeds back into higher investment and credit demand and a further increase in asset prices. A negative change in expectations could then precipitate a reverse process with falling asset prices and a credit crunch, which may significantly increase repayment difficulties for borrowers and may ultimately lead to higher loan losses for banks. Another factor leading to loose lending policies is high competition among banks trying to stabilise market shares in an expanding market.

Given the specific characteristics associated with the transition process, it is intrinsically difficult to establish whether such a rapid pace of financial deepening represents only a catching-up process to a much higher equilibrium level of the credit-to-GDP ratio or whether it also gives reason for macroeconomic and financial stability concerns. Thus, as will be discussed hereafter, these developments call for continued close monitoring.[10]

Although credit booms can increase the likelihood of banking crises, it is important to stress that rapid credit expansion may not necessarily be harmful for financial sector health. There is empirical evidence that many episodes of rapid credit growth have not been followed by banking crises.[11] This, coupled with the positive role of financial deepening in economic growth, poses important dilemmas for policy-makers. As it is difficult to distinguish ex ante between benign and harmful episodes of fast credit growth, closely monitoring the evolution of credit remains a key task for policy-makers from a financial stability perspective.

In particular, the speed of credit growth may put a strain on banks' risk assessment and risk management capacities, which, coupled with over-optimism about future prospects, may lead to a misallocation of credit. Given the lack of long credit histories of borrowers, this challenge may be all the more significant in the case of banks in central, eastern and south-eastern Europe. The problem may be particularly pronounced in the case of relatively new, previously under-serviced, market segments, such as households and small and medium-sized enterprises. In this regard, some of the standard measures of asset quality, such as the share of non-performing loans in total loans, may prove to be relatively uninformative, since new loans (which are large in a period of rapid credit growth) are unlikely to fall into arrears immediately after being granted. In a context in which floating interest rates are increasingly common for mortgages and other long-term lending, interest rate risk can have a potential impact on the quality of the loan portfolio.

Moreover, foreign currency lending also has distinct implications from a financial stability perspective. Banks are generally required to keep net open foreign exchange positions close to balance, so that they do not face potential currency mismatches. However, end-borrowers typically either lack access to hedging instruments, which are often unavailable or too costly, or do not have natural hedges such as foreign exchange revenues. As a result, currency mismatches may still arise, borne not by banks but by the real sector of the economy, while

9 The role of credit market imperfections in amplifying initial shocks was discussed in B. Bernanke and M. Gertler (1989), "Agency Costs, Net Worth and Business Fluctuations", *American Economic Review*, vol. 79(1), pp. 14-31; N. Kiyotaki and J. Moore (1997), "Credit Cycles", *Journal of Political Economy*, vol. 105(2), pp. 211-48; and B. Bernanke, M. Gertler and S. Gilchrist (1998), "The Financial Accelerator in a Quantitative Business Cycle Framework", BIS Working Paper No 125.

10 On the stability implications of rapid credit growth in the region, see the box entitled "Credit developments in the new non-euro area EU Member States" in the December 2005 issue of the ECB's Financial Stability Review; L. Papademos (2005), "Financial structures, credit growth and house prices in the new EU Member States: Policy challenges on the road to the euro", speech delivered at the conference held by Latvijas Banka, Riga, 19 September, available on the ECB's website (www.ecb.int); and "Macroeconomic and financial stability challenges for acceding and candidate countries", ECB Occasional Paper No 48, July 2006.

11 See, for example, A. Tornell and F. Westermann (2002), "Boom-Bust Cycles: Facts and Explanation", IMF Staff Papers, 49 (special issue), pp. 111-55.

banks may face a credit risk stemming from the fact that, in the event of exchange rate changes, borrowers' ability to service their debt could be affected. Indeed, in many countries, borrowers appear to underestimate the risk of exchange rate changes between the domestic currency and the currency in which they borrow.[12] In this context it should be noted that the exchange rate risk with respect to the euro persists in all countries before they adopt the euro, irrespective of the currency regime in place.

Despite these potential implications for financial stability, it needs to be emphasised that banking sectors in the region are generally well capitalised and, as shown in Table 2, profitable. Although lending-deposit spreads have been reduced in recent years, banking in the countries of this region generally remains a more profitable activity than in more mature markets, such as the euro area, which explains the interest from foreign banks in the region. The presence of foreign-owned banks also implies that the latest techniques and practices regarding risk assessment are being spread throughout the region. In addition, the fact that part of the credit growth in the region has resulted from the expansion of mortgage lending attenuates the potential risks to financial stability, as these loans are collateralised. At the same time, competition for market share in banking markets that are still relatively profitable and are expected to grow considerably in the future may provide an incentive for local bank managers to rapidly expand their lending activity. The presence of foreign-owned banks also calls for a strong emphasis on effective coordination between supervisors in both home and host countries. In particular, supervisory authorities often have to deal with the fact that the banking activities in the region of a particular foreign-owned banking group may account for a relatively small share of the total assets of that foreign banking group, while at the same time being of systemic importance for the host country.

Financial sectors throughout the region are also subject to some surveillance under the Financial Sector Assessment Program (FSAP) carried out by the International Monetary Fund and the World Bank. The FSAP not only provides a framework for stress-testing the resilience of financial sectors under different scenarios, but also provides an agenda for improvements in the institutional and regulatory frameworks.

The recent episodes of rapid credit growth have also elicited a policy response. Authorities in a number of countries in the region have tightened prudential regulations and implemented other policy measures to contain credit growth, e.g. raising minimum reserve requirements and introducing limits on bank lending (or increasing interest rates). While a detailed discussion of such measures falls outside the scope of this article, many of them have tended to be circumvented over time, either by direct borrowing from abroad or through increased activities of non-bank financial intermediaries. Thus, efforts to improve the supervision of non-bank financial institutions are an important part of the policy response to avoid the potential weakening of prudential standards that could result if credit were instead channelled via less regulated non-bank financial institutions.

6 CONCLUSION

The countries in central, eastern and south-eastern Europe have seen a marked increase in the pace at which their financial sectors have been developing in recent years. A key factor behind this financial development has been the progress made in the process of transition from a centrally planned to a market economy. In addition, macroeconomic and financial sector policies and cyclical factors may also have played a role in contributing to the rapid development of the financial sectors in the region in recent years. At the same time, recent developments in these sectors have to be put in the context of the low starting levels for many credit activities such as mortgage lending.

12 While most of the foreign currency borrowing is in euro, other currencies such as the Swiss franc have increasingly been gaining share.

Despite the recent growth, the financial sectors in the region still remain relatively small when compared with those of the euro area.

The rapid growth of credit to the private sector observed in a number of countries in the region could pose risks to both macroeconomic and financial stability. Macroeconomic risks relate, in particular, to an overheating economy and an associated worsening of the current account. With regard to financial stability risks, it should be noted that the speed of credit growth may put a strain on banks' risk assessment and risk management capacities which, coupled with over-optimism about future prospects, may lead to a misallocation of credit. The problem could become particularly pronounced in the case of relatively new, but rapidly growing, market segments, such as households and small and medium-sized enterprises. In addition, foreign currency lending can also have distinct implications for financial stability. At the same time, it needs to be emphasised that banking sectors in the region are generally well capitalised and profitable and that the presence of foreign-owned banks implies that the latest techniques and practices regarding risk assessment are being spread throughout the region. Overall, financial development and credit growth in the region call for continued close monitoring. However, the development of financial systems can be expected to promote more productive investment and economic growth in the region.