How Did the Global Financial Crisis Affect the CESEE Region and Latin America? A Comparative Analysis

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This paper examines the impact the global economic and financial crisis had on two distinct emerging market regions, namely Central, Eastern and Southeastern Europe (CESEE) and Latin America. Similar to other emerging economies, both regions were initially surprisingly resilient as the crisis gathered momentum. They were, however, both strongly affected by the sharp retrenchment in capital inflows and the collapse of global demand that followed the demise of Lehman Brothers in September 2008. Notwithstanding differences in the channels of transmission and the intensity of the propagation, the short-term outcome in 2009 was similar for both regions: one of the deepest recessions in decades. At the same time, the worst case scenario of a fully-fledged financial meltdown occurred neither in the CESEE region nor in Latin America.

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1 Introduction and Key Structural Characteristics

This short paper discusses the impact of the global economic and financial crisis on two major emerging market regions: Central, Eastern and Southeastern Europe (CESEE) and Latin America.[2] Although there were differences in the channels of transmission of the crisis to these regions and in the intensity of the propagation, the short-term outcome in the real economy in 2009 was similar for both regions: one of the worst recessions in decades. Given that both regions differ in several important respects, the question arises of how structural and institutional features as well as policies before and during the crisis had affected the transmission of global events to the regions under review.

To set the stage, it is expedient to recall some key features that characterize CESEE and Latin America and are important for analyzing the impact of the global crisis on these two regions.

First, CESEE and Latin America display some differences in income levels. GDP per capita in 2008 reached on average USD 18,000 at PPP in CESEE, while it was USD 12,000 in Latin America. These levels correspond to slightly over 50% and about 35%, respectively, of the euro area average (see chart 1). In terms of total GDP, Latin America is three times as large as the CESEE countries covered in this study, given that it has an overall population of 460 million, which compares with 100 million in the CESEE region.

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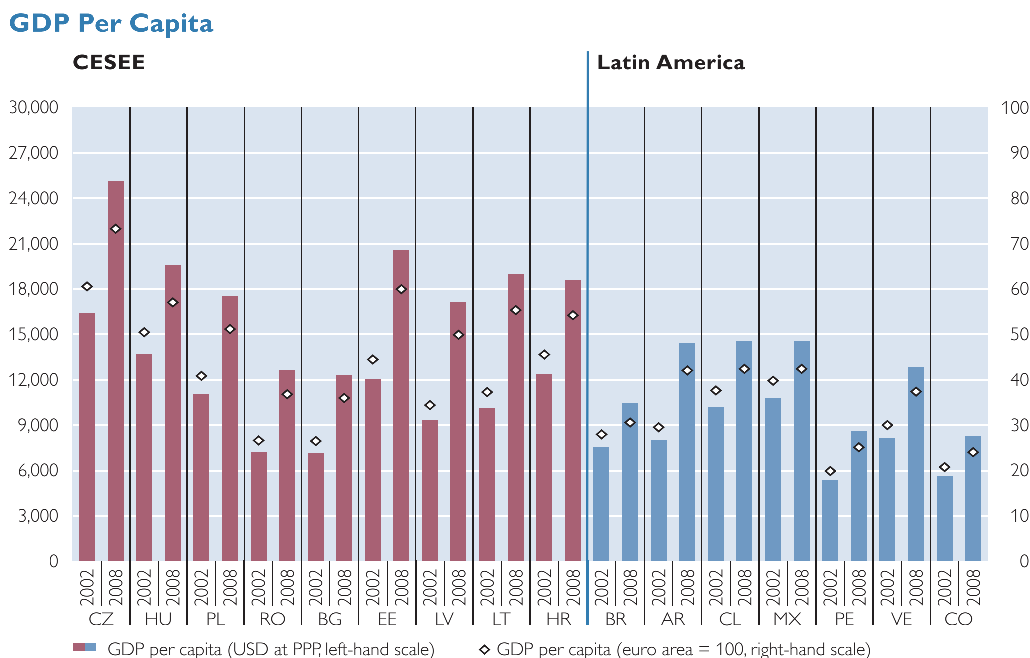
[2] *In this study, the CESEE region covers nine countries: the eight CESEE EU Member States which have not yet adopted the euro (i.e. Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland and Romania) as well as Croatia. Latin America comprises the seven largest economies of the region (i.e. Argentina, Brazil, Chile, Colombia, Peru, Mexico and Venezuela).*

Chart 1

GDP Per Capita



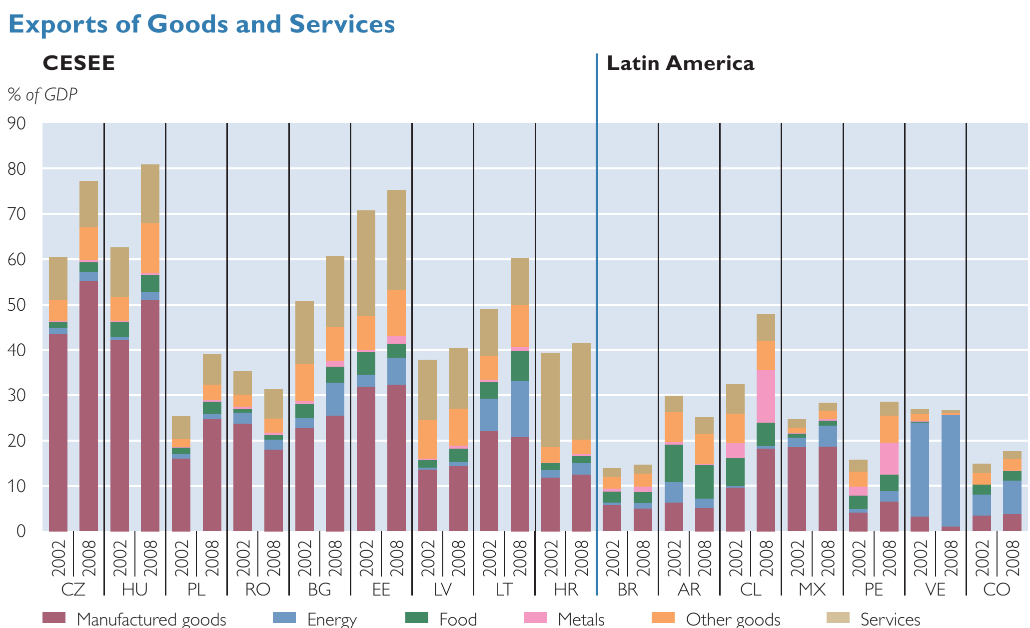
Source: IMF WEO database, OeNB, Banco de España.

Second, the two regions also vary as to their degree of trade openness. On average, in CESEE, exports of goods and services amount to some 50% of GDP, compared with 23% of GDP in Latin America (chart 2).

Moreover, as chart 2 shows, export structures differ, too. In CESEE, some three quarters of total exports consist on average of manufactured goods, while

Chart 2

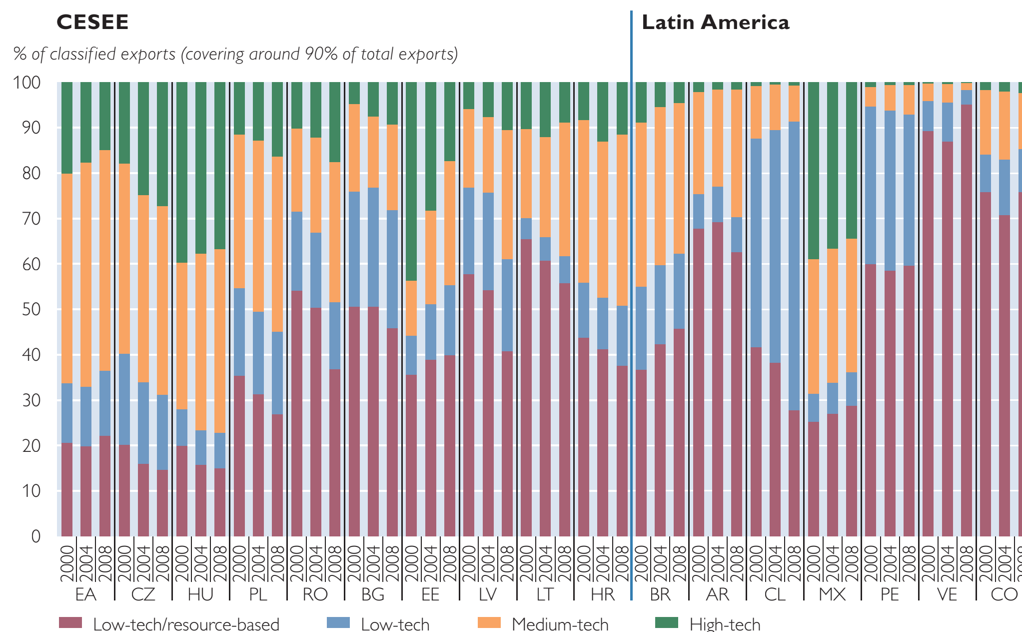
Exports of Goods and Services



Source: National central banks, OeNB, Banco de España.

Chart 3

Technological Content of Exports



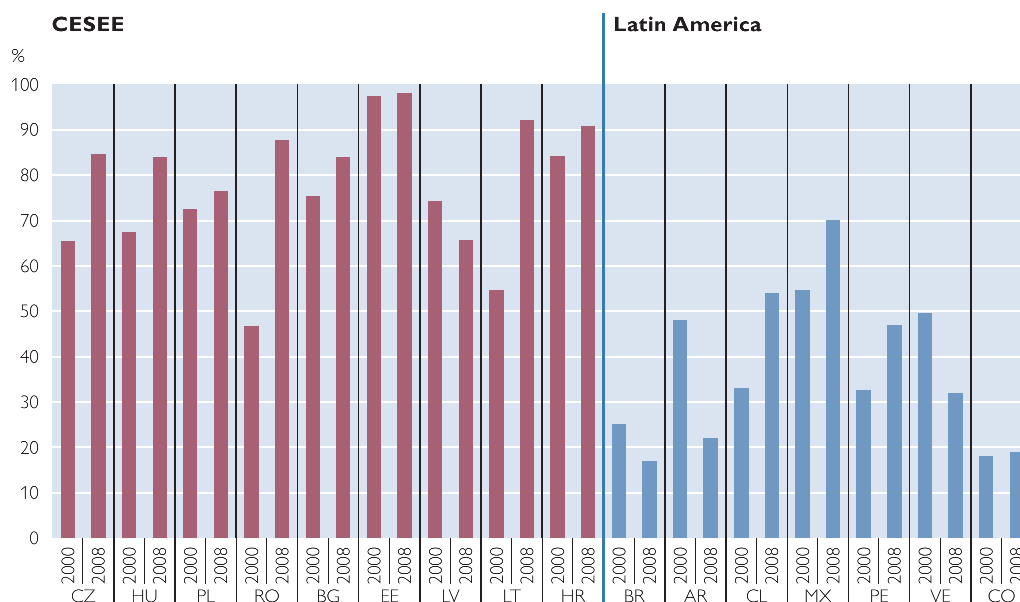
Source: Eurostat COMEXT database, UN Comtrade database, OeNB.

Note: EA = euro area.

less than 15% are commodities. In Latin America, the respective shares are on average 43% and 41%. The technological content of exports confirms this picture (chart 3).

Chart 4

Share of Foreign Banks in Total Banking Assets



Source: EBRD, BIS, IMF, OeNB, Banco de España.

Third, the two regions exhibit some differences as regards financial integration. This is particularly true for the integration into international banking networks. The share of foreign banks in total banking assets averages 82% in CESEE, as opposed to 37% in Latin America (chart 4).

Finally, the two regions differ with respect to institutional integration (perspectives): The CESEE countries reviewed here are already, or will soon become, members of the European Union, while Latin America does not have such a focal point to anchor economic and social development.

Moreover, neither region is uniform, but the degree of heterogeneity is more pronounced across the CESEE region. While we can learn much from comparisons among the two regions, it is also important not to lose sight of intraregional variation. This is particularly true for the macrofinancial risk profile, which has, apart from regional factors, very strong country-specific dimensions.

2 The Boom Years before the Crisis

In the run-up to the global crisis, both regions were experiencing booming economic conditions, with buoyant GDP and credit growth largely driven by sizeable capital inflows. These booms were underpinned by strong world growth, easy global liquidity conditions and a positive growth outlook. As a consequence, average annual GDP growth reached 5% in the CESEE region and 4.3% in Latin America between 2002 and 2008. Economic growth in both regions was led by domestic demand (private consumption and investment), which in some countries displayed clear signs of overheating toward the end of the boom years. At the same time, net exports contributed negatively to GDP growth during the 2002 to 2008 period, in particular in the CESEE countries (–1.6% per annum on average in CESEE, however with very wide cross-country variation, and –0.8% in Latin America). As a consequence of the 2002 to 2008 growth period, living standards in both regions increased significantly and poverty rates – starting from a much higher level in Latin America – decreased.

Aside from favorable global conditions, several region-specific features had likewise underpinned the strong growth momentum before the outbreak of the global crisis. As for the CESEE countries, two aspects in particular distinguish them from other emerging market economies. First, CESEE countries underwent a deep and historically unprecedented transformation from planned to market economies. This implied significant investment needs, as the pre-transition physical capital stock had become largely obsolete. In addition, economic transformation went hand in hand with a rapid change in economic integration patterns. The regional reorientation of trade flows to the EU was accompanied and in fact promoted by a shift from resource-based/low-tech exports to medium- and high-tech exports. This helped CESEE countries to successfully cope with the negative terms-of-trade shock resulting from the global commodity price boom before the crisis. At the same time, the financial integration of CESEE countries with advanced European economies also deepened substantially, not least in terms of cross-border ownership of financial institutions. While financial integration has been a key driver of growth in CESEE, it has also contributed to credit booms,[3] elevated leverage and a buildup of foreign currency loans (EBRD, 2009).

[3] *For more details, see Backé, Égert and Walko (2007) and Zumer, Égert and Backé (2009).*

The reorientation of trade and financial links is closely related to the second key distinguishing aspect of CESEE economies, namely their participation in the EU integration process. Except for Croatia – which is expected to join the EU in the next few years – all CESEE countries covered here have become members of the EU, a highly integrated economic area, and have adopted European standards for economic policy, institutions and governance. Undoubtedly, this has anchored and promoted economic development in the CESEE region (even though the advent of EU membership may also have contributed to overly optimistic expectations during the boom years before the crisis). Moreover, all CESEE countries are sooner or later set to adopt the euro and are thus committed to striving toward the fulfillment of the convergence criteria laid down in the Treaty (ECB, 2003).

During the period of buoyant growth lasting until 2008, financial vulnerabilities built up in some CESEE countries. Policy stances differed across countries, while the policy toolbox (e.g. as regards the management of capital flows) was constrained by EU accession and the depth of financial integration. In most CESEE countries, substantial capital inflows and fast credit growth were largely seen as both manageable and supportive to the catching-up process, while downside risks were perceived as being contained. Measures to dampen credit growth were taken in a number of countries, but – with the exception of Croatia – the effects were relatively moderate and temporary.

Latin America was enjoying, during the five-year period running up to 2008, its longest and most dynamic growth spell since the 1970s, having left behind the financial crises that had affected some countries in the late 1990s and early 2000s. A key driver for this performance was the commodity price rally that took place during this period and which meant an accumulated positive terms-of-trade shock for this commodity exporting region of more than 150%.

A second key factor is the outstanding reduction in financial vulnerabilities that was achieved in the period from 2002 to 2008 on the back of improved economic policy management in most countries, though not all. Learning from past crises and policy mistakes, most countries in Latin America pursued sounder monetary and fiscal policies, adopted more flexible (though still managed) exchange rate regimes, and paid substantial policy and regulatory attention to signs of excessive capital inflows, asset price bubbles, currency mismatches and credit booms during the years before the crisis. Such attention arguably moderated the risk of a boom-bust cycle.

3 Vulnerabilities at the Onset of the Global Crisis: Mixed Patterns, Especially in CESEE

To capture the macrofinancial strengths and vulnerabilities of CESEE and Latin America before the global crisis, we employ a broad list of standard vulnerability indicators, which are presented in the form of cobwebs. This allows for a comparison across indicators and time and thus for capturing risk profiles at the onset of the current and earlier crises.[4]

[4] *The methodology used allows only for an indirect comparison across regions, as the cobweb charts depict the deviations of each indicator from a long-term average of the respective region.*

Clearly, these averages are not necessarily indicative of the vulnerability profile of individual countries.[5] It is also important to note that the link between vulnerabilities and performance during crisis periods is neither simple nor straightforward. In fact, empirical evidence from earlier crisis episodes is not conclusive on how, when and to what extent vulnerabilities materialize when a shock hits.

More specifically, we employ six sets of indicators related to (1) market sentiment, (2) the real economy, (3) the public sector, (4) monetary factors, (5) the external sector and (6) the banking sector. Table A1 in the annex contains the full list of indicators and also refers to the underlying motivation for their inclusion into our data set. For the current crisis, we use data as of September 2008 (Lehman collapse), given that the crisis spread to emerging countries mostly after this event. The reference points for comparisons across time are December 2001 (Argentine crisis) and August 1998 (Russian crisis).[6]

The cobweb charts are to be read in the following way: The closer a data point is located to the origin of the cobweb, the lower is the degree of vulnerability, and vice versa. Data are normalized based on their long-term average and the standard deviation of the series.[7] The impact of possible trends in the data, which could result from factors like structural reforms or integration, is not accounted for, as there is no obvious method to filter out possible trend components in a robust and incontestable way. At any rate, this caveat calls for caution in the interpretation of the data.

The general message conveyed by these cobwebs (see chart 5) is that Latin America succeeded in considerably reducing vulnerabilities in the years before the current crisis, not only in the banking sector (where the recent turmoil started), but also in the public and external sectors, which had been at the origin of past crises in the region. Economic policies played an important role in containing financial vulnerabilities in Latin America prior to the crisis, in particular reserve accumulation and measures to discourage short-term capital inflows and financial dollarization. In the boom years before the outbreak of the global crisis, Latin America was running current account surpluses, and external debt as a share of GDP had shrunk substantially. So had currency mismatches, short-term debt as a share of international reserves was very low and the region had a positive net foreign asset position. Thus, one can argue that Latin America was better prepared than in the past to weather external shocks, when the most recent financial crisis struck.

In turn, vulnerabilities in the CESEE region as a whole had increased in some areas in the years prior to the current crisis, notably in the external and banking sectors and with respect to some monetary indicators (mainly credit develop-

[5] *Regional aggregates are based on weighted averages of country GDPs in PPP terms. Cobwebs for individual CESEE countries are available upon request from the OeNB authors of this paper. Sectoral aggregates refer to arithmetic averages of all subindicators used.*

[6] *In the case of daily and monthly (quarterly) data, we use the weighted average of the six months (four quarters) before the month (quarter) of the respective crisis. Regional aggregates are based on weighted averages of country GDPs in PPP terms. Sectoral aggregates refer to arithmetic averages of all subindicators used.*

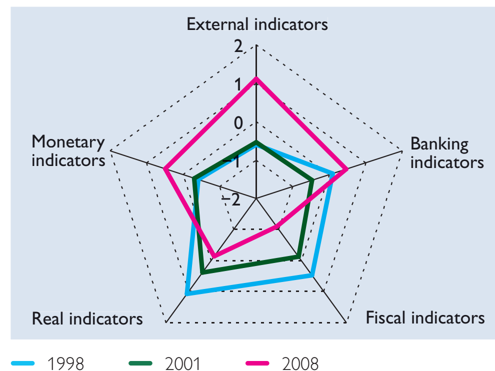
[7] *A value above zero means a positive deviation from the long-term average expressed in standard deviations. In order to ensure that a cobweb closer to the origin represents less vulnerability, some variables are inversed (sovereign ratings, domestic stock index, budget balance, deposit growth, industrial output growth, current account balance, FDI, net portfolio investment flows, net foreign assets, basic balance, return on equity, capital adequacy ratio, long-term foreign exchange deposit rating and relative bank stock price).*

Chart 5

Vulnerability Indicators[1]

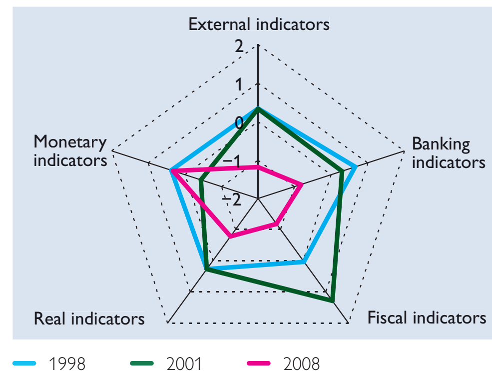
CESEE

measured in standard deviations from long-term averages



Latin America

measured in standard deviations from long-term averages



Source: National central banks, OeNB, Banco de España.

[1] *Cobwebs on each of the six indicator groups and the respective subindicators are presented in the annex.*

Note: Observations closer to the origin of the graph indicate lower vulnerability.

ments). By contrast, sentiment, fiscal and real indicators suggested a decline in the region's macrofinancial vulnerabilities over time. As mentioned earlier, though, the development of macrofinancial risk profiles was diverse across individual CESEE countries.

Complementing chart 5, the annex contains two tables which display the risk profiles in 2008 relative to the two earlier crisis episodes used as reference points (Argentine and Russian crises). Table A2 and A3 highlight where vulnerability indicators in 2008 deviated substantially from their long-term averages.

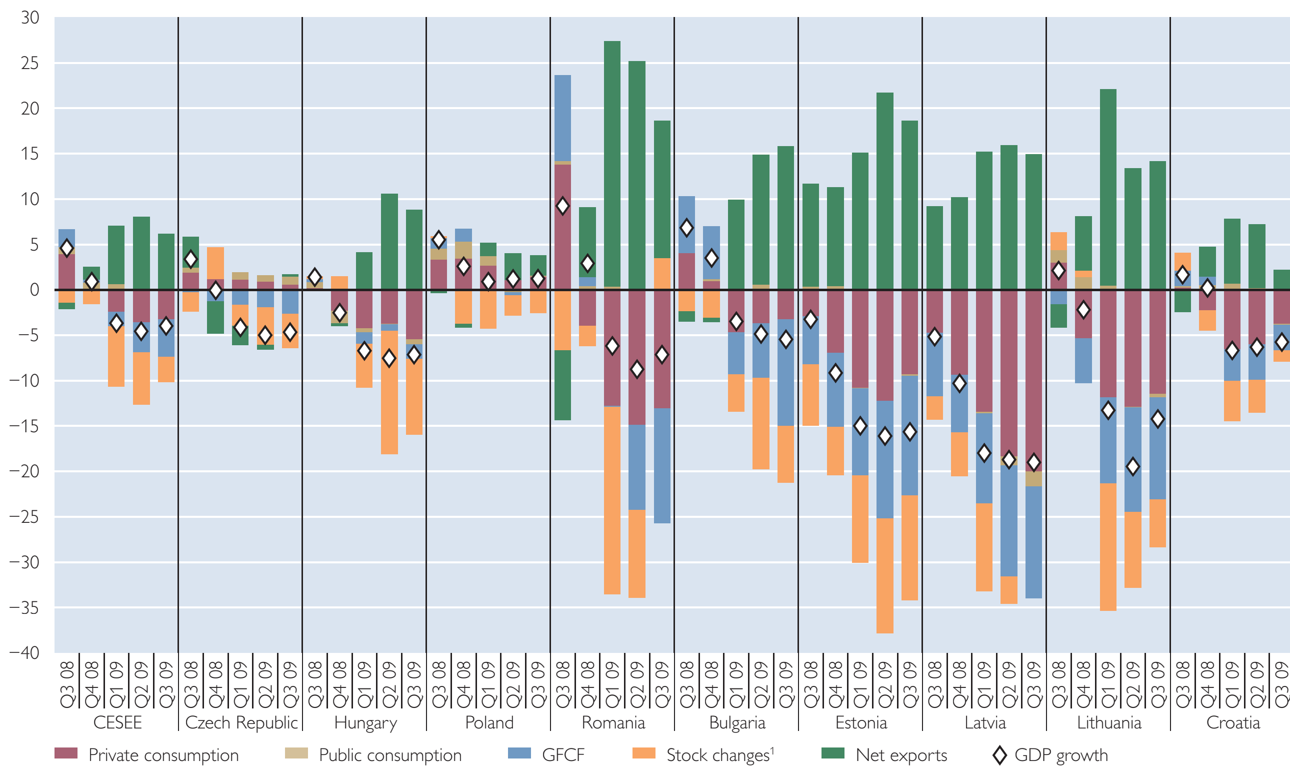
4 The Spillovers of the Global Financial Crisis: Both Regions Hard Hit, but Mitigating Factors at Work

Like other emerging markets, both CESEE and Latin America showed remarkable resilience against the global economic and financial crisis up to the collapse of Lehman Brothers in September 2008, quite independently of vulnerability profiles. Thereafter, both regions were severely hit by the crisis, as risk aversion – in particular vis-à-vis emerging markets – rose substantially and liquidity flowed into safe U.S. government bonds. This exerted substantial pressure on exchange rates in a number of countries. The crisis led to massive falls in asset prices, including stock prices, fixed income securities, and – in the case of some CESEE countries – also house prices. In parallel, world trade collapsed. As a consequence, exports of CESEE countries plummeted, which in turn led to a contraction in investment. As the prospect of a major downturn became ever more likely, confidence dropped and labor market conditions worsened, and private consumption also took a hit. As a consequence, year-on-year GDP growth moderated substantially in the last quarter of 2008 and turned negative in most countries (apart from Poland) in the first three quarters of 2009. Also, the composition of growth changed: The contribution of net exports turned positive, as imports contracted much more strongly

Chart 6

GDP Growth and Its Components in CESEE

GDP growth: year-on-year change in %; components: contribution to annual growth in percentage points



Source: Eurostat, OeNB.

[1] *Including statistical discrepancy.*

than exports (see chart 6). In Latin America, the real economy repercussions were similar, but overall not as stark as in the CESEE region (see chart 7).

At that stage, developments across countries became more differentiated. Country-specific risk profiles (including debt levels, reliance on foreign funding and the presence of large currency mismatches) started to play a more important role in determining the course of events, while the degree of trade openness also played a major role, given the severity of the trade shock.

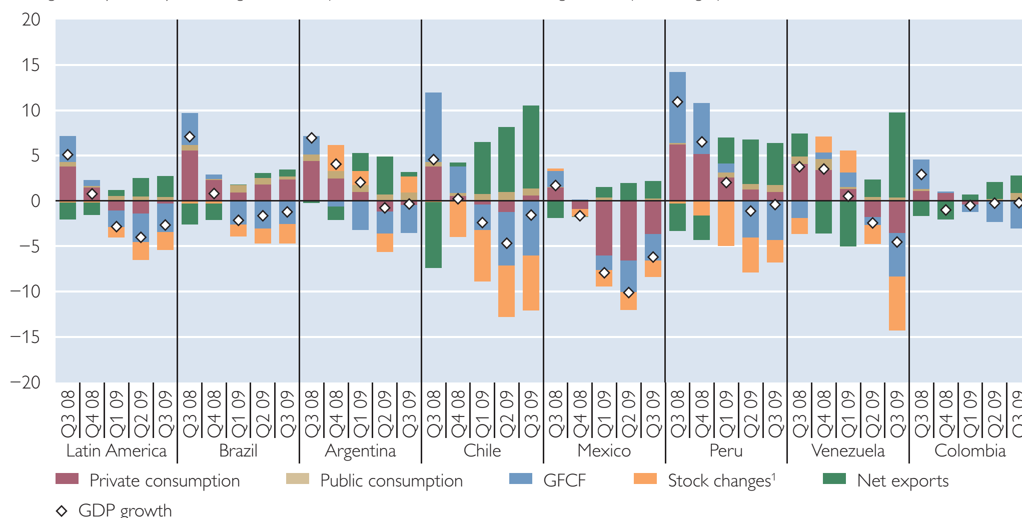
The transmission of the crisis peaked in early 2009. More recently, CESEE and Latin America saw a recovery of equity markets, an appreciation of exchange rates and a fall in risk premiums. Financial markets in most Latin American countries recovered to pre-crisis levels or even beyond, but in CESEE – except for risk premiums – financial markets have still not reached their pre-Lehman levels. Exports also stabilized and, more recently, saw a moderate pickup again.

Overall, the real economic downturn in 2009 was more pronounced in the CESEE region as a whole than in Latin America. This can be attributed to the much higher export-to-GDP ratios and the substantially higher share of manufactured goods in the exports of CESEE countries compared to Latin American countries, but also to the financial vulnerabilities of a number of CESEE countries. Indeed, they experienced much larger adjustments during the crisis than Latin America. As a notable exception in CESEE, Poland continued to record pos-

Chart 7

GDP Growth and Its Components in Latin America

GDP growth: year-on-year change in %; components: contribution to annual growth in percentage points



Source: National statistical offices, OeNB, Banco de España.

[1] *Including statistical discrepancy.*

itive economic growth in 2009. This can be traced back to (1) fairly low initial vulnerability levels, (2) a comparatively low degree of export dependence, (3) a strong (but partly temporary) fall in the exchange rate (which contained imports), (4) some fiscal stimulus and (5) infrastructure investment, which was partly financed by the EU and partly driven by preparations for the European Soccer Championship 2012.

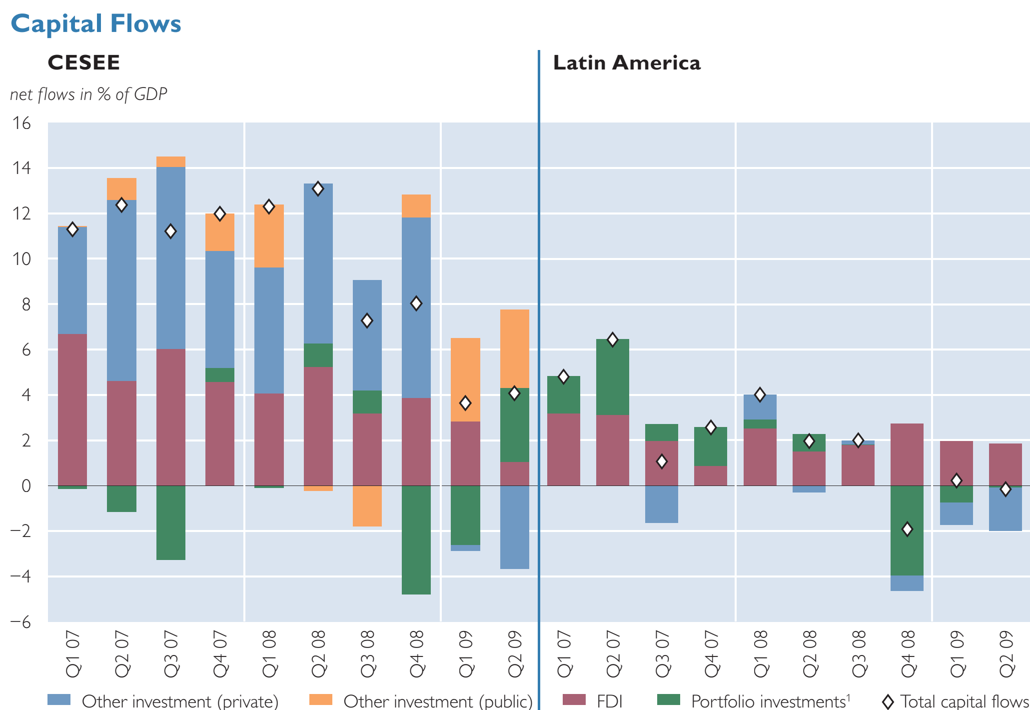
While total capital inflows moderated much more for the CESEE region than for Latin America, given the higher inflows into emerging Europe before the crisis, total inflows into CESEE remained in positive territory in the final quarter of 2008 and the first half of 2009. By contrast, Latin America recorded net outflows in the last quarter of 2008 and about zero net inflows in the first half of 2009 (chart 8).

Without other (public) investment, which includes IFI/EU financial assistance, net flows to CESEE were positive in the final quarter of 2008, about zero in the first quarter of 2009, and again marginally positive in the second quarter of 2009. However, for some CESEE countries, private financial flows were not enough to meet the financing needs in the last quarter of 2008. In CESEE, the financing gap was covered with international reserves and, in some countries, by having recourse to IFI/EU credit. This is an important difference with Latin American countries, where financing needs were covered with international reserves.

For three CESEE countries (Hungary, Latvia, Romania), IFI/EU support packages were in fact instrumental in stabilizing their economies and in sustaining private capital flows. IFI/EU programs for Hungary and Latvia might have helped support private flows to other CESEE countries, although there is no direct evidence underpinning such spillover effects. In any case, private capital flows to CESEE started to recover from March 2009 onwards, when it became clear that IMF resources as well as EU balance of payments support facilities for EU Member

Chart 8

Capital Flows



Source: National central banks, OeNB, Banco de España.

[1] Including financial derivatives.

States would be increased substantially. In turn, Latin America did not have to resort to international support measures to cover balance of payments needs. However, Brazil and Mexico concluded a currency swap agreement with the Federal Reserve (similar to those of some developed countries), and two countries (Mexico and Colombia) signed up for the IMF's new Flexible Credit Line as a precautionary measure, and so did Poland.

In CESEE, a key factor in sustaining overall capital flow dynamics was that intragroup loans of banks remained stable or even expanded (Mihaljek, 2009; EBRD, 2009; Berglöf et al., 2009). In Latin America, in turn, foreign bank funding was generally much less relevant as a source of finance, since most credit was financed by the local deposit base.

More recently, capital flows started to show signs of improvement and the worst case scenario of a fully-fledged financial meltdown occurred neither in the CESEE region nor in Latin America.

As a consequence of the crisis, credit and deposit growth has moderated substantially and banks in both regions are now confronted with increasing nonperforming loans (comparatively more pronounced in some CESEE countries than in Latin America)[8] as well as declining profitability. Yet, bank capitalization has remained at high levels in all countries under review, providing a buffer against a potential further deterioration in asset quality.

[8] *Due to differences in classification rules, the comparability of nonperforming loan levels across countries is, however, limited.*

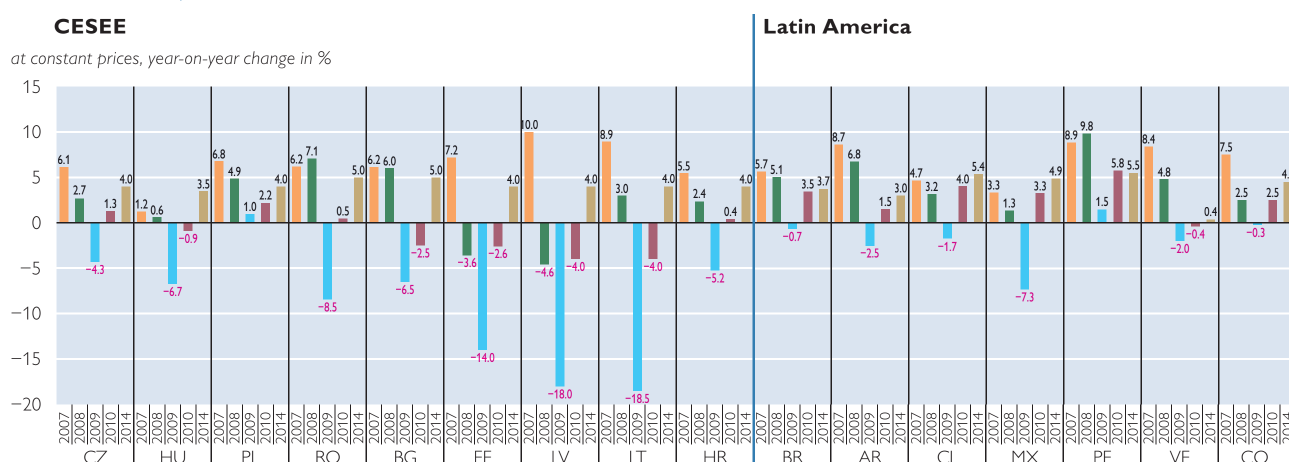
5 Policy Response: Stabilizing Role of National and International Support Measures

As the crisis affected both regions, the policy response focused on standard and nonstandard central bank policy actions as well as on fiscal measures. At the end of 2008, when the severity of the downturn became clear and the risks of inflation from exchange rate pass-through seemed limited, most countries started a process of monetary easing. Nevertheless, in almost all countries, policy rates remained at higher levels than in major industrialized economies. On a positive note, neither Latin American countries nor most CESEE countries (except for Hungary) had to hike interest rates to defend exchange rates. Since the outbreak of the crisis, the authorities in both regions, as elsewhere around the globe, have taken a range of extraordinary policy measures to stabilize financial systems and to reduce spill-overs to the real economy.[9] Fiscal policy responses to the crisis varied within and across the two regions and were mainly determined by the fiscal situation at the beginning of the crisis. Only some CESEE countries were in a position to run – rather moderate – countercyclical fiscal policies, while others had to engage in procyclical tightening to retain or regain investor confidence. In contrast, relatively sound fiscal positions prior to the crisis allowed most Latin American governments to respond to the global crisis with – at least moderately – countercyclical fiscal policy. The implementation of the fiscal policy plans has, however, fallen behind schedule in most countries. Moreover, as previously stated, international support measures from the IMF and the EU were instrumental in restoring confidence and so was the increased role of emerging economies in the international policy discussions, notably in the G-20.

Even though the economic downturn seems to have reached a bottom, the pattern of economic recovery is still unclear. The growth outlook for Latin America has been revised upward in recent months, while it has recently stabilized for CESEE at relatively low levels for 2009 and improved somewhat for 2010. Accord-

Chart 9

GDP Growth, 2007–2014



Source: IMF WEO database, OeNB, Banco de España.

[9] *For a more detailed account of the measures taken by Latin American central banks, see Banco de España (2009).*

ing to current projections, Latin America enjoys, on average, better growth prospects for 2010 due to a relatively sound fiscal, external and financial position, less intense financial distress and commodity price increases, while growth projections (subject to much uncertainty) for the next four years appear to be broadly similar for both regions (see chart 9). A weak growth outlook in the United States and the euro area, a further deterioration of bank asset quality, swings in risk appetite which may lead to either downward or upward pressures on exchange rates, fiscal imbalances as well as a series of upcoming elections may, however, represent risks to economic recovery for the countries in CESEE and Latin America. In the latter region, increased political pressure on central banks may also be a risk factor.

6 Concluding Remarks

The two regions under review – Central, Eastern and Southeastern Europe and Latin America – exhibited important differences in macrofinancial vulnerabilities at the start of the crisis. This subsequently had an impact on the extent to which the two regions were affected by the international economic and financial turmoil. By and large, Latin America was hit by the crisis at a time when it had made considerable progress in reducing macrofinancial vulnerabilities, while vulnerabilities in the CESEE region as a whole had increased in some respects prior to the crisis. Moreover, cross-country variation has been considerable in the two regions. Particularly in CESEE, countries displayed substantial differences in macrofinancial risk profiles. As some of these risks materialized after the fall of Lehman Brothers, performance also became more differentiated.

Moreover, during the crisis, integration into European banking networks turned out to be an asset (it certainly had also contributed to boosting the boom before the crisis).[10] While financial vulnerabilities played a key transmission role in several CESEE countries, their high dependence on the export of manufactured goods resulted in a particularly strong impact of the trade channel, when world trade and export demand collapsed in late 2008. The trade channel affected Latin America mostly through the drop in commodity prices and in export demand, whereas the financial distress was intense but had a more limited impact due to reduced vulnerabilities and timely policy responses.

The EU anchor has likewise proved very beneficial for CESEE countries, as it provides a functioning institutional and regulatory framework that promotes the convergence process and is expected to prevent extreme policy slippages. Latin America, in turn, has benefited from policies that had reduced its vulnerabilities prior to the crisis and after the onset of the crisis (contrary to past experiences) became countercyclical. Given their less clearly anchored convergence process and possibly also slower productivity gains, Latin American countries may need to make additional efforts to consolidate macroeconomic and financial stability in the years to come.

[10] *See also Berglöf et al. (2009), EBRD (2009), ECB (2009) as well as Herrmann and Mihaljek (2010).*

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Annex

Table A1

Sentiment and Vulnerability Indicators

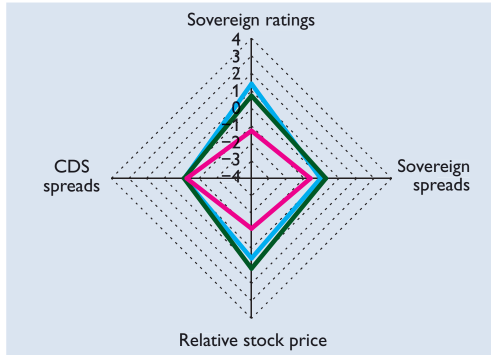
Group	Indicator	Interpretation
Sentiment indicators	EMBI spreads CDS sovereign spreads Sovereign rating (average of Fitch, Moody's and S&P) Relative stock exchange index (to world index)	Proxies for market and international investor sentiment, which also gauge potential contagion effects from a global or emerging market crisis
Vulnerability indicators *of which:*		
External indicators	All	Measure of balance of payments pressures or the capacity and willingness of a country to deal with its external liabilities (ultimately including the possibility of sovereign default)
	Current account balance	Measure of external financing needs
	FDI and basic balance	Measure of which part of external financing needs is covered by long-term and relatively stable capital inflows
	Short-term debt over foreign exchange reserves	Estimate of the capacity to confront a sudden stop in short-term capital inflows or short-term debt rollovers with central bank resources
	External debt (and external debt service)	Capacity to repay external liabilities
	Net portfolio investment inflows	Measure of potential short-term outflows in case of a sudden stop
	Net foreign assets (NFA)	Structural measure of a country's position as external creditor or debtor and of the potential impact of a more pronounced depreciation of the currency
Banking indicators	All	Indicator of imbalances in an industry with high externalities over the rest of the economy
	Domestic banks' foreign liabilities over foreign assets	Proxy for currency mismatches in case of a devaluation and the dependence of banks on external sources of funds
	Long-term foreign exchange deposit rating (Moody's)	Measure of foreign investor sentiment about a country's banking sector
	Relative stock price index for domestic banks	Measure of investor confidence vis-à-vis listed banks relative to the rest of the stock exchange
	Loan-to-deposit ratio	Measure of whether credit is increasing faster than deposits and is financed through other – possibly less stable – sources
	Share of foreign currency loans in total loans	Measure of the currency mismatch of bank clients, and the potential increase in nonperforming loans in case of a strong depreciation
	Nonperforming loans (NPLs)	Gauge of the pressure from nonperforming loans on banking sector balances
	Capital adequacy ratio (CAR)	Indicator of the solvency of the banking sector
	Return on equity (ROE)	Indicator of the profitability of the banking sector
Fiscal indicators	Budget balance Public debt	Signal of pressures from public finances on monetary and exchange rate policies and indicator of financing pressures on the public sector
	Interest payments over budget revenues	Indicator of debt servicing pressures on public accounts and proxy for the sustainability of a certain debt level
Monetary indicators	Real M2 growth Real deposit growth Real credit growth	Measures meant to capture issues related to monetary policies, credit growth and the way it is financed
Real indicators	Industrial output growth	Leading indicator of current and future economic growth
	Nominal interest rates Consumer price inflation	Variables determining investment and consumption propensity
	Export growth	Proxy for external demand and international competitiveness

Source: Compiled by authors.

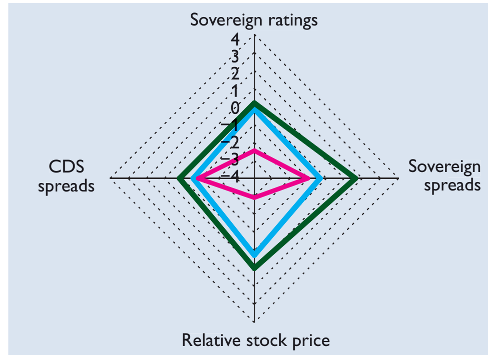
Chart A1

Sentiment Indicators

CESEE



Latin America



1998 2001 2008

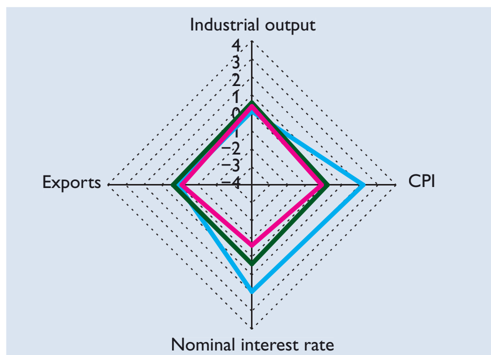
1998 2001 2008

Source: J.P. Morgan, Moody's, Fitch Ratings, Standard & Poor's, Thomson Reuters, OeNB, Banco de España.

Chart A2

Real indicators

CESEE



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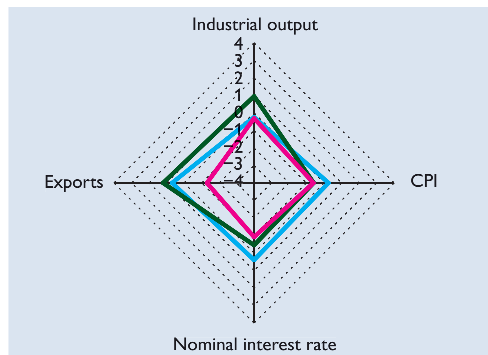


1998 2001 2008

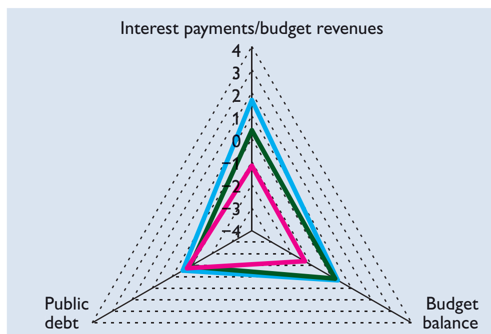
1998 2001 2008

Source: National central banks, OeNB, Banco de España.

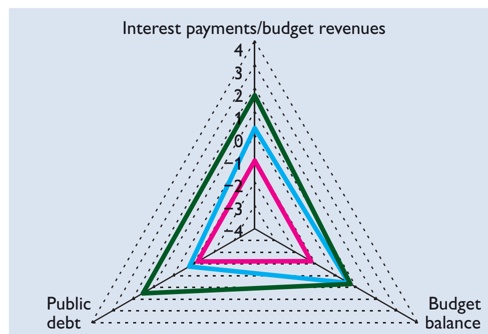
Chart A3

Fiscal Indicators

CESEE



Latin America



1998 2001 2008

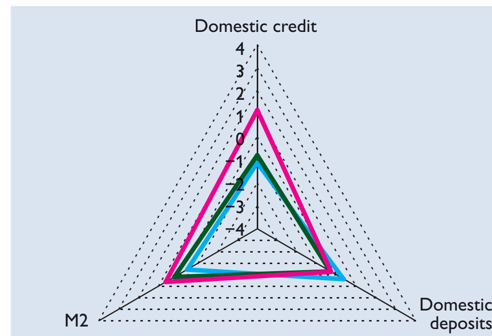
1998 2001 2008

Source: National central banks, OeNB, Banco de España.

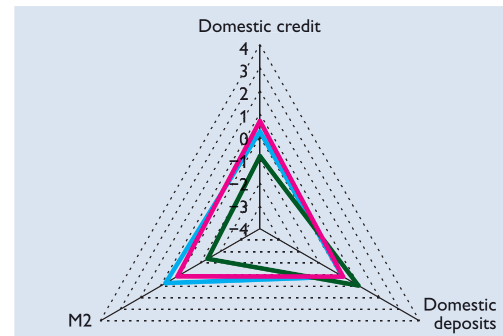
Chart A4

Monetary Indicators

CESEE



Latin America



1998 2001 2008

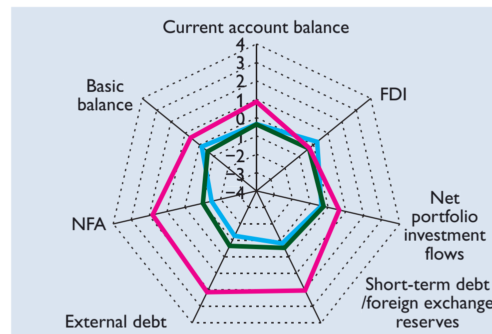
1998 2001 2008

Source: National central banks, OeNB, Banco de España.

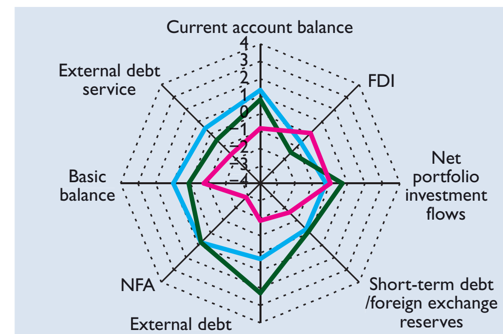
Chart A5

External Indicators

CESEE



Latin America



1998 2001 2008

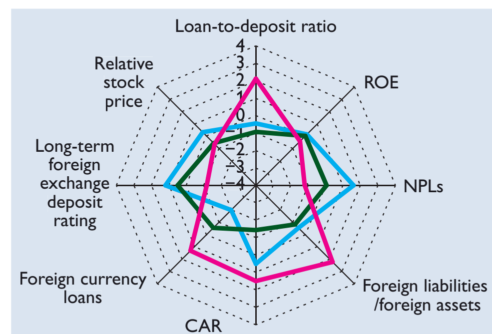
1998 2001 2008

Source: National central banks, OeNB, Banco de España.

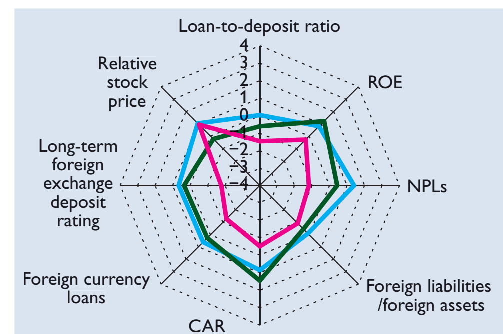
Chart A6

Banking Indicators

CESEE



Latin America



1998 2001 2008

1998 2001 2008

Source: National central banks, OeNB, Banco de España.

Table A2

Vulnerabilities vis-à-vis Previous Crisis Episodes

Group	Indicator	CESEE	Latin America
Sentiment indicators	EMBI spreads	+	+
	CDS sovereign spreads	+	+
	Sovereign rating (average of Fitch, Moody's and S&P)	+	+
	Relative stock exchange index (to world index)	+	+
External indicators	Current account balance	–	+
	FDI	0	–
	Basic balance	–	+
	Short-term debt over foreign exchange reserves	–	+
	External debt (and external debt service)	–	+
	Net portfolio investment inflows	–	0
	Net foreign assets (NFA)	–	+
Banking indicators	Domestic banks' foreign liabilities over foreign assets	–	+
	Long-term foreign exchange deposit rating (Moody's)	+	+
	Relative stock price index for domestic banks	0	0
	Loan-to-deposit ratio	–	+
	Share of foreign currency loans in total loans	–	+
	Nonperforming loans (NPLs)	+	+
	Capital adequacy ratio (CAR)	–	+
	Return on equity (RoE)	+	+
Fiscal indicators	Budget balance	+	+
	Public debt	0	+
	Interest payments over budget revenues	+	+
Monetary indicators	Real M2 growth	–	0
	Real deposit growth	0	0
	Real credit growth	–	–
Real indicators	Industrial output growth	0	+
	Nominal interest rates	+	+
	Consumer price inflation	+	+
	Export growth	+	+
Summary	Number of indicators improving compared with earlier crisis episodes	12	23
	Number of indicators deteriorating compared with earlier crisis episodes	12	2
	Number of indicators in line with earlier crisis episodes	5	4

Source: Compiled by authors.
Note: + / – = improvement / deterioration in 2008 vis-à-vis the two previous crisis episodes used as reference points (Argentine and Russian crises); 0 = similar to previous crisis episodes.

Table A3

Deviations from the Long-Term Average

Group	Indicator	CESEE	Latin America
Sentiment indicators	EMBI spreads	0	+
	CDS sovereign spreads	0	0
	Sovereign rating (average of Fitch, Moody's and S&P)	+	+
	Relative stock exchange index (to world index)	+	+
External indicators	Current account balance	0	0
	FDI	0	0
	Basic balance	0	0
	Short-term debt over foreign exchange reserves	–	+
	External debt (and external debt service)	–	+
	Net portfolio investment inflows	0	0
	Net foreign assets (NFA)	–	+
Banking indicators	Domestic banks' foreign liabilities over foreign assets	–	0
	Long-term foreign exchange deposit rating (Moody's)	+	+
	Relative stock price index for domestic banks	0	0
	Loan-to-deposit ratio	–	+
	Share of foreign currency loans in total loans	–	+
	Nonperforming loans (NPLs)	+	+
	Capital adequacy ratio (CAR)	–	0
	Return on equity (RoE)	0	0
Fiscal indicators	Budget balance	+	+
	Public debt	0	+
	Interest payments over budget revenues	+	+
Monetary indicators	Real M2 growth	0	0
	Real deposit growth	0	0
	Real credit growth	–	0
Real indicators	Industrial output growth	0	0
	Nominal interest rates	0	0
	Consumer price inflation	0	0
	Export growth	0	+
Summary	Number of indicators that are better (by at least 1 s.d.) than the long-term average	6	14
	Number of indicators that are worse (by at least 1 s.d.) than the long-term average	8	0
	Number of indicators that deviate by less than 1 s.d. from the long-term average	15	15

Source: Compiled by authors.
Note: + / – = deviation of indicator in 2008 from its long-term mean to the favorable (+) / unfavorable (–) side by more than 1 standard deviation (s.d.); 0 = deviation smaller than 1 s.d.