

Financial Shortages Patterns - an Overview on Emerging Economies

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Abstract

The hereby paper tackles the onset and evolution of the global financial crisis, providing an overview of the partially foreseeable causes and extremely severe consequences. The aim of the paper is to analyze how the collapses of the US sub-prime mortgage market and the reversal of the housing boom in other industrialized economies led to a ripple effect on the world economy. In Europe, bankruptcy stroke and a number of major financial institutions collapsed, while others needed rescuing. The paper concludes that the global economy has proven to be extremely brittle and in need of coherent actions in order to insure recovery.

Keywords: economic crisis, financial stress

JEL Code: G01, G10

1. Introduction

The aim of the paper is to analyze the onset, the causes, the evolution and the effects of the financial crisis that is currently causing distress in the economic and political environment. In order to do that we tried to investigate, to explore the various versions and sides that discuss about the reason and causes of the crisis. Depending on the country and the political affiliation of the author, there are several points of view on this matter. The common denominator in all those versions and that on which all the authors seem to concur is that the crisis was triggered by a liquidity shortfall in the United States banking system. The first section tries to measure the effects that the financial crisis had on the United States, for starters, and the on the whole world. In order to do that we have used the World Bank Reports, the International Monetary Fund Surveys, Robert J. Shiller's book, "The subprime solution: how today's global financial crisis happened and what to do about it", Obsfeld and Rogoff's "Global Imbalances ant the Financial Crisis", Kaminsky, Reinhart and Vegh's working paper: "When It Rains, It Pours: Procyclical Capital Flows and Macroeconomic Policies", Rajan and Hattary's "Understanding Bilateral Foreign Direct Investment Flows in Emerging Asia" and various sites that explore the issue, such as www.telegraph.co.uk, www.voxeu.org, www.globalissues.org, www.imf.org, www.reuters.com etc. Of important relevance and an important scientific contribution to the domain of the paper is the financial stress index that was implemented by the International Monetary Fund. The Index is based on the market fluctuations and reveals both the depth and the intensity of the crisis.

The second section deals with the links between the Advanced and the Emerging Economies that led to the spreading of the crisis from the United States to the advanced economies and then to the emerging ones. The figures are quite representative, showing the LTCM collapse, the NASDAQ crash and the WorldCom and Enron collapse. Furthermore a schematic depiction of the effects of the crisis analyzes the two types of factors that had an influence on the relationship between the financial stress in the developed countries ant the one in emerging countries: the common factors, that produced similar effects in all emerging countries, ant the specific countries, that highlight the differences between the countries.

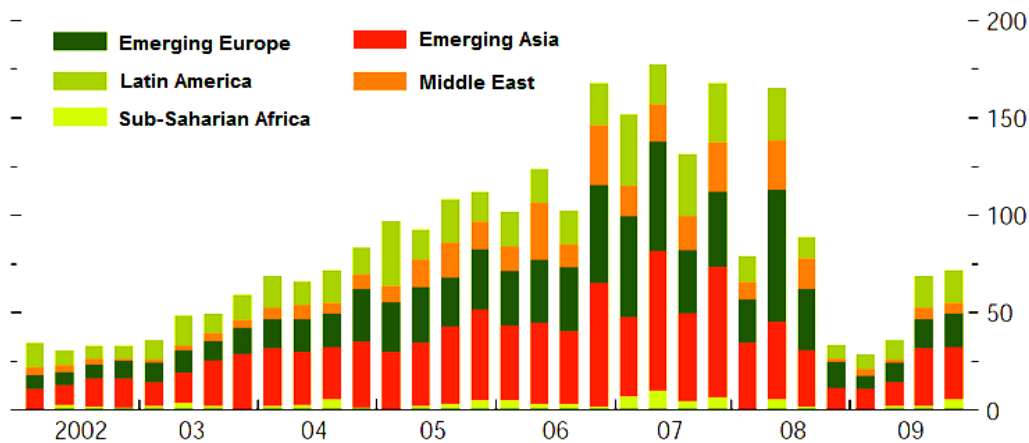
The references used for this section were the International Monetary Fund Surveys, the World Bank Reports and Blanchard and Milesi-Ferretti's "Global Imbalances - In Midstream?".

2. Measuring the Financial Stress

The financial turmoil induced by the eruption of the American sub-prime mortgage market in 2007, has rapidly mutated into a full-blown global crisis and its accelerated intensification following the collapse of Lehman Brothers in September 2008 gave it the (somewhat improper) status [World Bank Institute] of "Second Great Depression" [www.telegraph.co.uk]. After a short period of resilience, the crisis has reached the emerging economies.

The global financial crisis really started to show its effects in the middle of 2007 and into 2008. All around the world stock markets started to fall, large financial institutions collapsed or have been bought out and all governments, including those of the wealthiest countries, had to come up with rescue packages in order to save their financial system.

Figure 1. Inflows to Emerging Economies (million dollars)

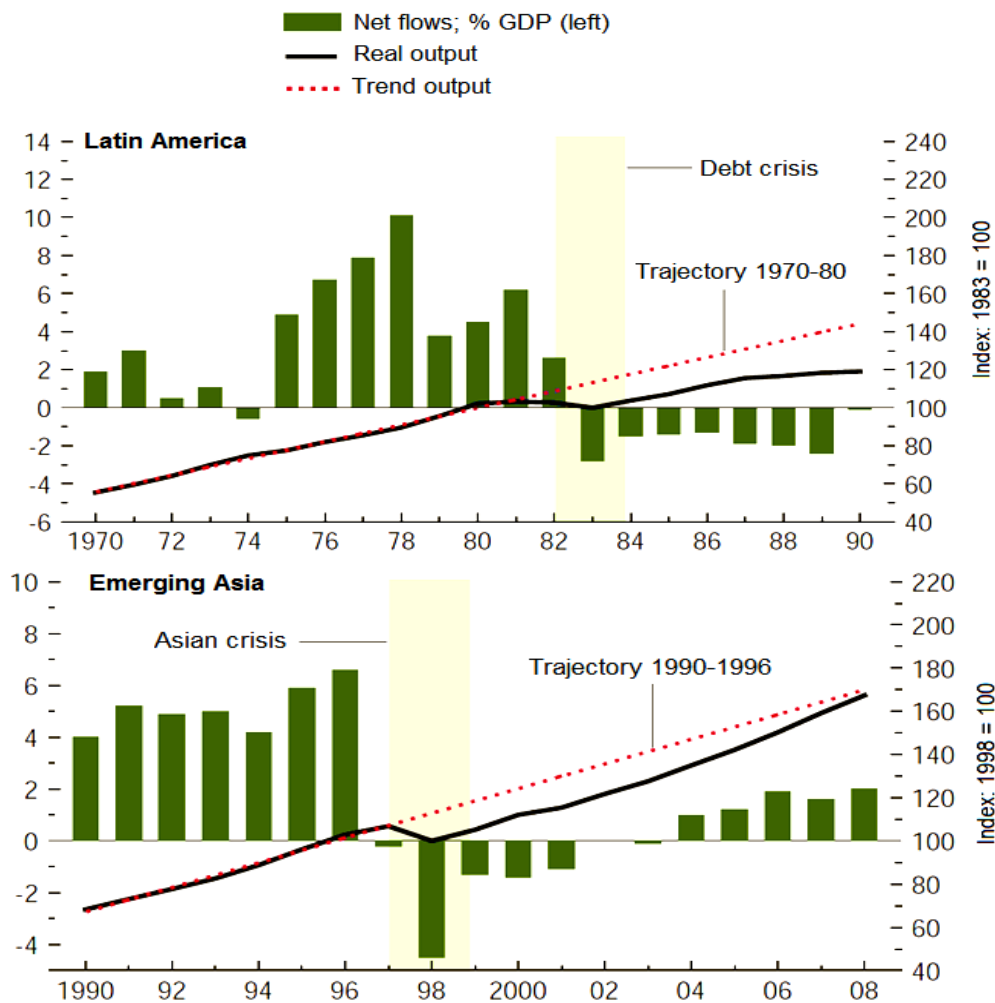


Source: Bloomberg Financial Markets; EmergingPortfolio.com;
Bank for International Settlements; IMF

By the last quarter of 2008, the great majority of the emerging economies were facing difficulties in terms of foreign exchange, stock and sovereign debt markets. The impact on the exchange rates led to a combination of massive depreciation and depletion of foreign reserves. The concern on capital inflows and external sustainability increased the spread of government bond, especially in emerging Europe and Latin America. Moreover, weak economic outlook hit the stock markets hard. [www.voxeu.org] The extent of the problems has been so severe that some of the world's largest financial institutions have collapsed. Others have been bought out by their competition at low prices and in other cases, the governments of the wealthiest nations in the world have resorted to extensive bail-out and rescue packages for the remaining large banks and financial institutions. [www.globalissues.org]

The massive withdrawals from the emerging economies' investment funds over the same period of 2008 suggests the fact that investors in mature markets begun to retract from emerging economies (Figure 1). The third and fourth quarter of 2008 confirmed the drastic reduction of funding resources, the most affected being the European and Asian debtors. The rapid depletion of external flows had major consequences on the emerging economies, as the industrial production became significantly reduced. The worst decline occurred in the emerging European markets, where economies have contracted by 17.6%, reflecting lower demand for imports from the advanced economies, a consequence of the credit crunch [www.imf.org].

Figure 2. Sudden Stops and Activity (PPP weighted average)



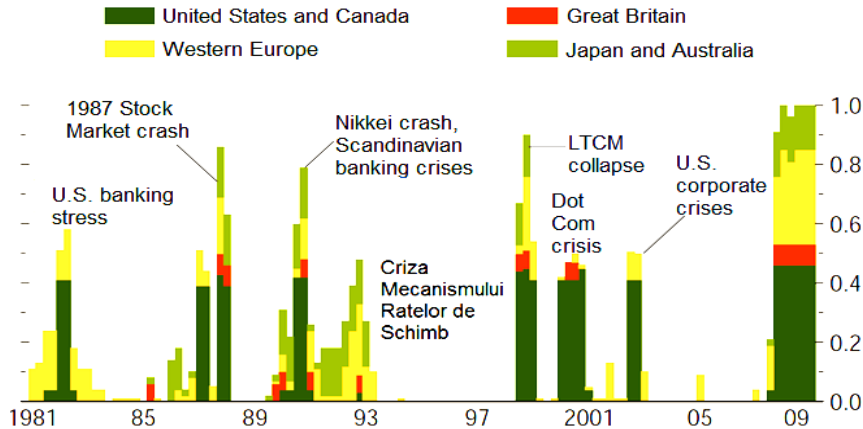
Source: IMF, *Balance of Payments Statistics*

In light of the recent U.S. mortgage crisis spread, a counter-attack required firm and coordinated public policies. Thus, the advanced economies should continue their efforts to stabilize the financial system not only because of domestic politics, but rather to reduce the spread of financial stress towards emerging economies [Robert J. Shiller, 2008]. Moreover, easier access to external funds would support the emerging markets in their process of avoiding the deterioration of their economic status and furthermore, avoiding a monetary crisis.

Such examples are the swap lines opened by the American Federal Reserve, the European Central Bank and several other emerging economies. [www.reuters.com] However, in a long term perspective, financial integration is an extremely important condition for the well-being of the global economy. Since the financial and monetary relations between countries facilitate the transmission of financial stress, there is a need for developing the methods to control external financial shocks, particularly with regard to the open market economies. During similar large-scale crisis in emerging economies, particularly the Latin American debt crisis and the 1997 Asian financial crisis, private capital inflows dried-up for a long period of time, and the output recovery was extremely sluggish (Figure 2). Although generalized financial imbalances were the actual trigger of those two crises, the both of them have seriously affected the banking sectors in the United States and Japan. A first step in reducing the impact of the current financial crisis on emerging markets is to determine the intensity and the extent of the financial stress both in emerging and developed economies.

Concerning the developed economies, the IMF created a Financial Stress Index based on the market fluctuations. The index was determined for the years following 1981, in a total of 17 economies, further accounting for approximately 80% of the developed countries' GDP. The value of the aforementioned index in 2009 reveals both the depth and the intensity of the crisis, due to the fact that, from the very first quarter of 2008, almost all developed countries have been faced with major financial difficulties (Figure 3).

Figure 3. Share of Advanced Economies in High Stress (GDP-weighted sum)

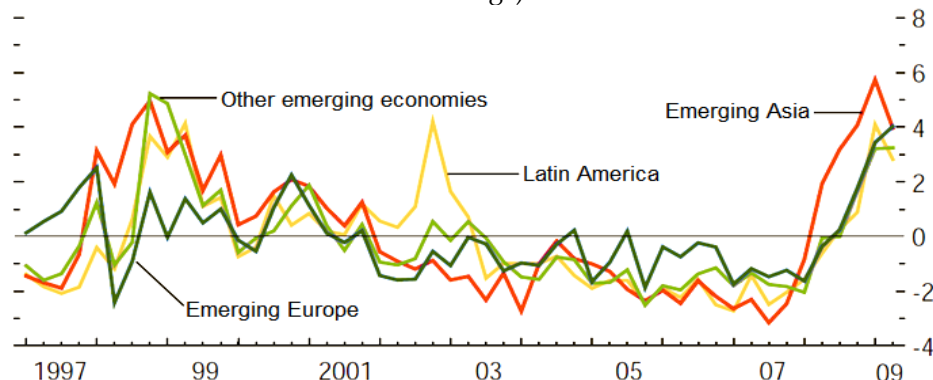


Source: IMF

In seven previous cases of such crisis, high financial stress affected at least 50% of the advanced economies. With one exception (the 1992 Exchange Rate Mechanism Crisis), all of these episodes had an impact on the United States [Obsfeld and Rogoff, 2009]. Certain stages marked by major financial strain have been associated with strong resettlement in the banking sector [Kaminsky, Reinhart and Vegh, 2004], the 1980's Latin American debt crisis and the 1990's Japanese Banking Crisis and Scandinavian financial crisis. But, the latest episodes are more focused on securities markets (for example the 1998, 2000 and 2002 currency crises).

The financial stress periods display two common elements: they occur in an abrupt manner and usually involve several sectors of a country's financial system. The general level of stress experienced in a country depends on the economical relevance of the affected financial sector or sectors. The previous statement has two implications on determining the Financial Stress Index: first, the index has to include the development of a considerable number of financial markets, and second, the aggregating sub-indexes must reflect the relative importance of several financial factors.

Figure 4. Financial Stress Indices in Emerging Economies (Purchasing-power-parity-weighted average)



Source: IMF

Based on these principles, the Financial Stress Index is determined using the following indicators:

- a) The exchange market pressure index, which increases the extent of exchange rate depreciation or international reserves decline;
- b) The spread between interbank rates and the yield on treasury bills – the so-called TED spread, which measures the premium banks charge each other over treasury bill rates, an increased level indicating a high risk of insolvency;
- c) The "beta" of banking sector stocks which is a measure of the correlation between the total returns to the banking sector stock index and the overall stock market index. A beta greater than 1 – indicating that banking stocks move more than proportionately against the overall stock market – suggests that the banking sector is relatively risky;
- d) The yields on securities;
- e) The slope of the yield curve.

Broadly speaking, by using the index mentioned above, one can identify four episodes of systemic financial stress. The first is the intensification of the Asian crisis in the first quarter of 1997 [Rajan and Hattari, 2009]. The second took place in late 1998 and was felt more by the emerging economies. This episode reflects the financial instability caused by the Russian debt crisis and the bankruptcy of the American hedge fund management firm Long-Term Capital Management. The third increase of the Financial Stress Index was due to the burst of the "dot-com bubble" in 2000. The fourth episode turned out to be more regionally-specific than the first three, the significant level being the one reached in Latin America, in 2002.

As for the current crisis, according to the Financial Stress Index, the first signs have emerged in Asia and the multiplied in the other regions of the world. In the first quarter of 2008, all regions showed extremely high levels of financial stress, along with similar events in developed economies [World Economic and Financial Surveys].

3. Links between Advanced and Emerging Economies

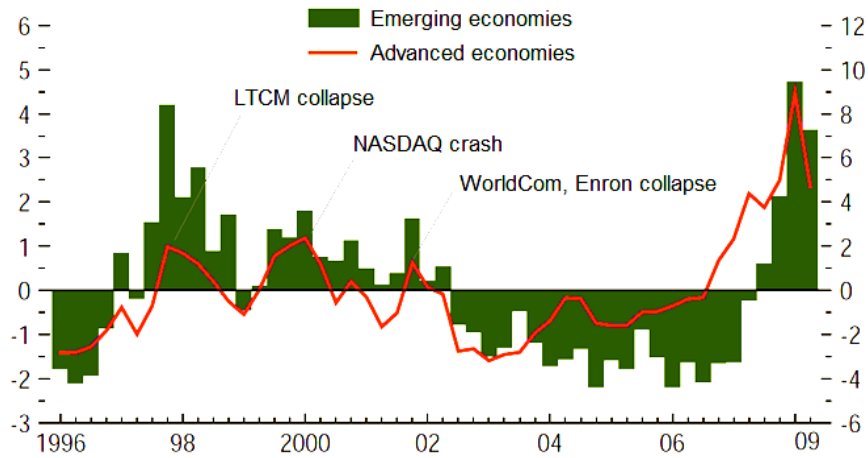
The strong correlation in financial stress between emerging markets suggests the fact that there might be an influence of common factors. One of these factors is represented by the stress intensity of the developed economies.

Figure 5 compares the aggregated indexes of financial stress in all developed and emerging economies. The link between the two indexes is strong, peaks being reached almost simultaneously, especially during the current crisis.

From all the four peaks on the chart, one can easily distinguish the events that have severely disrupted the financial stability of the developed economies - the Asian crisis, the collapse of the Long-Term Capital Management, the "dot-com" crisis and the present events. Regarding the current financial crisis, the changes in the two indexes were atypical - the Financial Stress Index's value in the developed countries was positive in the second quarter of 2007, then increased rapidly, while the Financial Stress Index's value in the emerging countries was negative until the first quarter of 2008, then increased its value very fast. Therefore, although the initial response was slow in emerging economies, the influence of the developed economies was sufficiently corrosive, thus significantly affecting them in 2009.

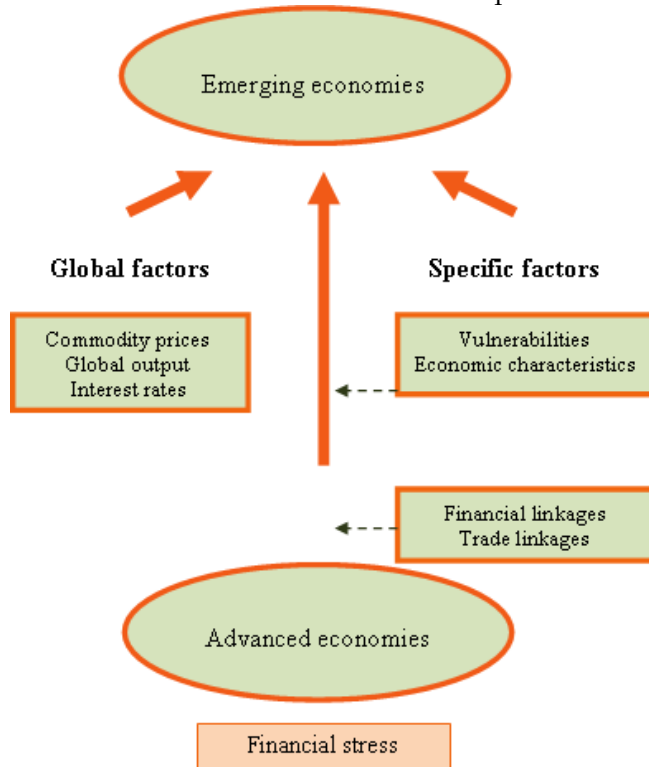
There are two types of factors that have an influence on the relationship between the financial stress in the developed countries and the one in emerging countries: the common factors, that produce similar effects in all emerging countries, and the specific factors, that highlight the differences between the countries as shown in Figure 6.

Figure 5. Comparison of Financial Stress Levels



Source: IMF

Figure 6. The Transmission of Stress: Schematic Depiction of Effects



Source: IMF

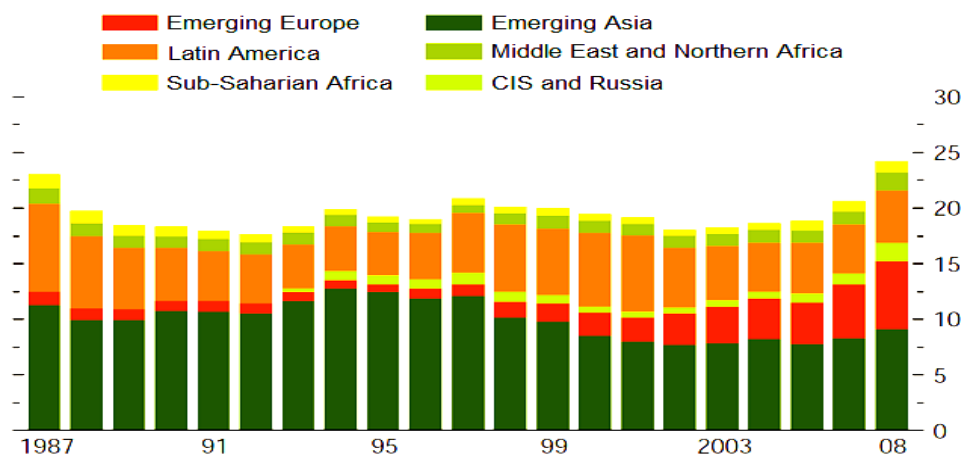
The presence of common factors is justified by the simultaneous spreading of tensions in the emerging regions. They include global shocks, such as the sudden change of market outlooks accompanied by high levels of risk and uncertainty. The part played by these common factors is most likely related to increased financial integration of most emerging economies in recent years - in other words, financial globalization. The specific or national factors can be divided in two main categories: financial and economic links between advanced and emerging economies and domestic vulnerabilities, arising from structural features [web.worldbank.org].

As to how international relations between countries facilitate the transmission of financial stress, the literature mentions two channels, namely the financial and the commercial channel. Financial

stress can be caused by capital withdrawals from the developed economies as the result of a financial shock. Furthermore, the financial stress can arise from the losses incurred by the funds invested by the emerging economies in the developed economies that are currently undergoing financial difficulties as a result of the global crisis.

Financial tensions can arise in terms of international trade as a result of lower volume of exports towards developed economies during an economic crisis, reflecting current and future demand contractions. In the past twenty years, trade relations have developed and the percentage in the GDP of the developed economies allotted to emerging economies exports has almost doubled [Blanchard, and Milesi-Ferretti, 2009]. More than half of these exports are now originating from emerging Asia (particularly China). But financial and commercial channels of transmission of the crisis can also interact, whereas the availability of commercial loans is affected by the volume of trade. Thus, the recent international trade imbalances are at least the result of the unavailability of financing sources. The following figure compares the size and composition of financial relations between emerging economies. One can notice that, at least in the past ten years, the debts to the banking sectors belonging to developed economies have rapidly increased, particularly in emerging Europe, while emerging Asia saw light decline, especially after the 1997-1998 crisis. Consequently, emerging Europe is more vulnerable to external banking crises, while emerging Asia is prone experience imbalances induced by foreign securities markets.

Figure 7. Financial Exposures of Emerging to Advanced Economies
 (Percent of emerging economies' GDP)



Source: BIS, IMF

Meanwhile, Western European banks have increased their dominance over bank flows, while North America was the main source of portfolio investment. Therefore, the United States and Canada increased their ability to induce imbalances among securities markets. National sources of vulnerability to shocks include solvency and liquidity problems, as well as factors related to the openness of world economies in the global economy. These factors increase susceptibility to currency crises and the possibility of transmitting financial strains originating from countries with significant foreign investments.

4. Conclusion

The recovery of the developed economies will prove to be quite sluggish, compared with previous situations (recessions in the mid-1970's, the beginning on the 1980's and 1990's) and with the emerging economies' situation. Some European Union countries that have suffered major financial imbalances during the current crisis will be forced to surpass a difficult period, the forecasts not showing any sign of economic growth in their cases, while countries such as Australia or the newly-industrialized Asia will undergo a period of economic boom. In most of the developed economies, but also in a handful of the emerging economies, there is a stringent need for demand relocation, as it has so far been focused on public consumption, and therefore it needs to be

relocated towards the private sector, coupled with the consolidation of public finances and restructuring the financial sector. The emerging economies and the advanced ones will have to boost economic growth based on domestic sources, since demand in international markets will be unlikely to reach level of before August 2007 very soon.

A quick recovery is believed to involve the implementation of economic policies based on individual circumstances. However, applying these individual policies in different momentums may lead to the occurrence of externalities, which is an aspect that must be taken into consideration when defining the policies. Externalities induced by fiscal policies have a significant impact on developed economies – contractions in national economies having a negative impact on exportations towards other states, and large deficits, which, coupled with the lack of strategies concerning fiscal consolidation, will most likely affect exchange rates. The recovery policies must focus on the imperfections of the current macroeconomic policies, which, at least in the past ten years, have led to major global imbalances, because the changes in current accounts were seen as harmful only if they caused internal and systemic distortions or if they generated global changes (an uneven depreciation of an international reserve currency).

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