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CURRENCY CRISES: A CHALLENGE FOR ECONOMIC THEORY AND POLICY

Theoretical as well as empirical understanding of the causes and effects of financial and currency crises is highly unsatisfactory. While there is no lack of theoretical hypotheses, they generally provide little guidance for economic policy. Global liberalization of financial and capital markets has heightened the proneness to crisis particularly of the emerging market economies. However, re-regulation of financial markets or the re-introduction of restrictions on capital transactions would constitute an inappropriate response to these challenges.

Since the European currency crisis of 1992 and the Mexican crisis in 1994, the theoretical and empirical literature on the causes and effects of international financial crises has soared. It has been further increased since the onset of the Asian crisis in 1997. Meanwhile, the number of research papers analyzing currency, exchange rate and banking crises has become difficult to oversee (see, i.a., *Corsetti – Pesenti – Roubini,* 1998, or *Mishkin,* 1996, and the references quoted there). Yet, from an economic policy point of view, the level of theoretical and empirical understanding of financial crises remains highly unsatisfactory. One gets increasingly the impression that today's financial and currency crises are inherently inaccessible to theoretical and empirical investigation, due to lack of common features and regularities. Nevertheless, there are and have been repeated attempts to provide a canonical explanation of international financial crises and to propose policy strategies to prevent such crises. The following article intends to give a concise (and thus necessarily incomplete) overview of theoretical, empirical and policy-related findings from the most recent literature on the subject (with emphasis on the Asian crisis).

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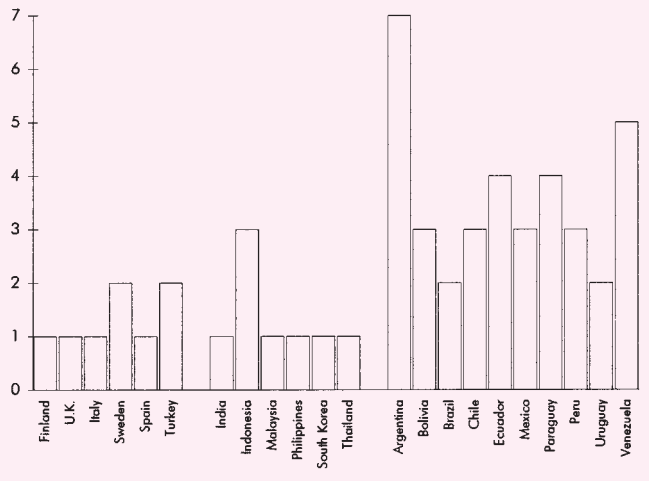
THEORETICAL HYPOTHESES ON CONTEMPORARY CURRENCY AND BANKING CRISES

The debt crisis of developing countries (Mexico, Latin America) in the early 1980s and the currency crises of the 1970s have, on the theoretical level, been regarded

Figure 1: Number of "currency crises" in developed countries, South-East Asia and South America



Source: IFS, own calculations. "Currency Crisis": real appreciation of the dollar vis-à-vis the respective national currency exceeds 20 percent within a period of 3 months. Period: 1975 through 1998 (Argentina from 1985, Bolivia from 1984, Brazil from 1990, Peru from 1988).

under the aspect of incompatibility between expansionary fiscal and monetary policies on the one side, and fixed exchange rates, on the other. Monetization of budget deficits through the Central Bank leads to balance of payments disequilibrium and hence to an outflow of foreign exchange reserves. This undermines the maintenance of fixed exchange rates and heightens the probability of devaluation or the introduction of capital controls. If international investors become wary of such a course of events, speculative capital flight from the "endangered" currency sets in, once foreign exchange reserves fall below a critical threshold. Financial collapse is often the result of such a "currency run". The "first generation" crisis models have focused primarily on currency crises of this kind. The reference model has been developed on the basis of deliberations by *Krugman* (1979).

However, neither the European currency crisis of 1992 (EMS crisis) nor the Mexican crisis of 1994 (Tequila crisis) could be explained in a satisfactory way using the arguments of the first-generation models. In the EMS crisis, factors influencing the complex interplay between costs and benefits of a credible exchange rate policy played a major role (in the event, the mutual quasi-fixed exchange rate ties between the countries participating in the EMS). More specifically, the EMS crisis was about the trade-off between benefits (enhanced stability) of fixed exchange rates and the costs associated with their being maintained in a credible way (high interest rates, high unemployment and slow growth). A new generation of model explanations emerged, the "second generation" models, using works by *Obstfeld* (1994) as a reference base.

Academics and economists of more empirical approach agree that both reference models referred to above fail to explain the Mexican crisis (1994) and the Asian crisis (1997) in a satisfactory way: too obvious and compelling is the empirical counter-evidence (see in particular the statistical indicators for the Asian crisis presented in *Radelet – Sachs,* 1998A and 1998B, as well as *Corsetti – Pesenti – Roubini,* 1998). Neither do conventional explanations, primarily based upon the relationship between balance of payments disequilibria and over- or under-valuation of the real exchange rate, lend themselves as a theoretical underpinning of these two crises (see also, i.a., *Reisen,* 1998A and 1998B).

More recent theoretical deliberations concerning in particular the Mexican and the Asian crisis mostly refer to the complex relationship between the inherent imperfections of financial markets (moral hazard, adverse selection due to asymmetric information), and the world-wide liberalization of financial and capital markets (see in particular *Radelet – Sachs,* 1998A and 1998B, as well as *Wyplosz,* 1998A and 1998B).

Wyplosz (1998A) establishes a direct link between the Latin American crisis of the 1980s, the European exchange rate crisis of the early 1990s and the Asian crisis of 1997 on the one hand, and the liberalization of financial markets introduced shortly before in each case, which led to a massive inflow of foreign capital, thereby heightening the currency risk of the countries concerned and adding to volatility and fragility of their financial systems[1]. Liberalization of financial markets, in a first stage, enhances competition among lenders or investors, thereby reducing the negative effects of rationing – one of the typical inefficiencies of markets with imperfect information. Subsequently, fiercer competition among suppliers leads to "over-lending" (over-consumption or over-investment), an over-valuation of real exchange rates, inflation of asset prices (mainly real estate), and to growing market distortions due to moral hazard and adverse selection – the two key sources of market inefficiency with asymmetric information.

Moreover, financial market liberalization (and the availability of modern financial instruments such as options and futures) lay the foundations for "multiple equilibria" becoming of increasing empirical relevance (*Azariadis – Guesnerie,* 1986, being the standard reference in this regard). The existence of multiple equilibria is caused by market behavior governed by expectations. If markets are overly expectation-driven, the actual market outcome will

[1] For some academics, the liberalization of national financial markets has thus become the best predictor of currency crises.

correspond to expectations even if the latter ex-ante may have been "unwarranted" or "absurd" (sunspot equilibria). Expectations can thereby be self-fulfilling and decide, whether market behavior tends towards a "good" or a "bad" equilibrium. Financial markets are always among the most expectation-driven ones – a feature that has been further strengthened by the world-wide opening and liberalization of financial markets, and by financial market innovations (options, futures). Thus, changes in expectations of creditors towards the negative side can provoke self-fulfilling crises, and shift a country from a "good" (high growth) towards a "bad" (slow growth) equilibrium.

This mechanism has been, according to leading figures in academics as well as on the job, the key element in the Asian crisis. Foreign creditors have not been unaware of the structural weaknesses affecting the financial and banking sector in the Asian crisis countries, such as inefficient governance structures, close relations with government authorities, etc.; however, given the outstanding macroeconomic performance of these countries, lacks in allocative efficiency of local financial markets (particularly of financial intermediaries) did not impinge upon expectations at a time, when capital imports rose moderately. It was only when the inflow of capital from abroad (in foreign currency) gained momentum that the structural deficiencies of East Asian financial markets became fully apparent and advanced to a major factor forming expectations. Thereby, the initially positive expectations of foreign investors, generated by the macroeconomic fundamentals, turned around. Most investors suspected that their fellow creditors would retreat from their financial engagements in Asia, which could seriously undermine the liquidity situation in the countries concerned. This expectation became prevailing on markets and, by way of "herd" behavior, self-fulfilling. The expected capital flight ("race to the exit") and a currency run actually set in. Under conditions as outlined here, i.e., when all investors obtain their basic information from the same source ("Reuters effect"), but in addition have different private information on further details, such irrational, as it is often claimed, herd behavior of investors can be perfectly rational (*Shiller,* 1995).

The surprising insight as regards self-fulfilling crises is that the latter may be, given the inherent imperfections of financial and capital markets (moral hazard, adverse selection due to asymmetric and uneven information), the outcome of rational behavior. Thus, in deregulated and global financial markets, self-fulfilling crises are basically unavoidable and very difficult to anticipate.

Structural weaknesses of a country may therefore prove a necessary, but not always sufficient condition for crisis. One of these necessary conditions is the combination of allocative inefficiencies of financial markets and an increase in capital imports in the form of short-term foreign currency assets (see, i.a., *Radelet – Sachs,* 1998B). If short-term capital imports in foreign currency rise beyond a critical threshold in relation to foreign exchange reserves of the debtor country, this may provoke – but not of necessity – a self-fulfilling currency run.

However, the pivotal conclusion the adherents of the theory of self-fulfilling crises draw for economic policy purposes is not, as one may expect, a call for re-regulation of financial markets and the re-introduction of capital controls. Such re-regulation of de-facto fully liberalized financial markets, considering the inherent dynamic such a move would take on, would imply high costs for the world economy (and relatively little prospective benefits); moreover, from an economic policy point of view, chances for success would be poor. A more promising policy option, in the eyes of the theorists, would be a global version of "support" systems which have proved successful in enhancing efficiency and stability of national capital markets. Among these are primarily institutions ensuring an efficient supervision and surveillance of financial markets, which on an international level may also play the crucial role of a lender of last resort, as well as an internationally binding set of rules for standstill agreements, debt relief for and financial default of countries in order to rein back problems of moral hazard. The fundamental criticism voiced by *Radelet – Sachs* (1998A and 1998B) of the handling of the Asian crisis by the IMF has focused on the alleged lack of readiness and ability of the IMF to act as an international lender of last resort in an efficient way.

However, this literature gives only marginal consideration to the role of creditor banks in the industrialized countries, which frequently try to compensate for a poor earnings potential in their home markets by aggressive and high-risk lending to emerging market economies. The probability of such lending rises with the growing liquidity of industrial countries' financial markets and the implicit decline in the general interest rate level. Both phenomena could be observed on the verge of the Asian crisis. Slow economic growth and the consolidation of government budgets in the European Union in order to meet the Maastricht criteria, as well as the cyclical improvement of the U.S. Federal budget, combined with the swift liberalization of international capital transactions, led to structural excess liquidity on financial markets and, in the following, to a marked squeeze in profit margins, notably of banks. European banks in particular, which due to structural weaknesses felt such pressure to an above-average extent, reacted by pushing for high-earnings-high risk strategies (see *White,* 1998).

POLICY CONCLUSIONS FROM THE ASIAN CRISIS?

As has been said, the diversity of patterns and possible causes of currency crises hardly allows practical conclusions to be drawn for economic policy purposes. Still, there is broad agreement about the dangers that an increased flow of short-term foreign capital may constitute for the financial system of emerging market economies. The only policy conclusion normally drawn from this fact is that borrowing of foreign capital should be restrained through disincentives such as taxes or high minimum reserve requirements. The differential tax treatment of foreign capital according to maturity in Chile and Columbia are often referred to as an example: in both countries, short-term capital inflows are subject to high taxes, while long-term flows like foreign direct investment are exempt from taxation (*Hahn et al.,* 1998).

There is also general agreement on the necessity of binding international rules for an efficient international supervision of capital markets, for the evaluation and transparency of business information, and for standard criteria for the credit rating of international debtors (*Reisen,* 1998A).

The basis for consensus becomes narrow, when it comes to the policy implications of the alleged connection between banking liberalization in the industrialized economies and a heightened probability of crisis in developing countries, or of the growing instability of the international financial system. Formulating policy implications of the ongoing restructuring of the international banking scenery (in Europe, Japan and the USA) for structure and quality of the international financial system would be sheer speculation (see, i.a., *White,* 1998).

Nevertheless, there is agreement to some extent in the literature on the policy assessment of the frequently fatal combination between a precarious liquidity situation and a regime of fixed exchange rates. Such a combination may lead to financial crisis: depending on whether or not the central bank of the country concerned actually plays its role as lender of last resort, bank runs or currency runs may set in. A policy of restricted flexibility of exchange rates is often regarded as preferable option for emerging market economies whose liquidity situation is critical. The most recent currency crises in Asia and Russia are convincing examples in this regard.

IMF INCREASINGLY A LENDER OF LAST RESORT

Since mid-1997, the financial situation of most countries in East Asia has changed profoundly. In the second half of last year, international banks withdrew some USD 100 billion in short-term funds from the countries in crisis. This broadly corresponds to the volume of short-term credits extended to these countries in 1996. All countries in East Asia were affected by the outflow of capital (see *BIS,* 1998A, as well as Table 2). Over the same period, capital flight and increased hedging requirements added to foreign claims of non-banks of the countries in crisis (about USD 15 billion). The looming financial collapse of these countries could be averted in the first instance through timely and, by its amount, unprecedented liquidity support from the IMF in the form of stand-by credits, as well as through multilateral and bilateral financial aid. Thailand, Indonesia and South Korea, the countries most severely struck by the crisis, were granted liquidity credit facilities of a total USD 117 billion, USD 35 billion of which by the IMF. This required exceeding the respective national quotas from 500 percent (Thailand, Indonesia) up to almost 2,000 percent (South Korea), whereas normally the IMF gives stand-by credits up to a ceiling of 300 percent of the national quota. However, in the East Asian crisis, the extent of the IMF engagement appears to have been of secondary importance. The official liquidity assistance agreed upon under the auspices of the Fund fell far short of covering all outstanding obligations from domestic and foreign liabilities of the countries concerned.

The Fund's commitment during the crisis to take over parts of the role of a lender of last resort and to provide basic

Table 1: Claims of European banks on countries in Asia, Russia and Brazil

End of 1997

	Asia				Russia	Brazil
	South Korea	Thailand	Indonesia	Malaysia		
	Billion USD					
Germany	9.6	6.0	6.2	7.2	30.5	10.7
France	11.1	4.7	4.8	2.9	7.0	8.6
U.K.	6.9	2.4	4.5	2.0	1.0	4.6
Other Europe	6.0	4.1	7.8	1.9	11.3	14.5
Europe	33.7	17.2	23.3	14.0	49.6	38.4
Japan	20.3	33.2	22.0	8.6	1.0	5.0
USA	9.5	2.5	4.9	1.8	7.1	15.8
Other countries	30.7	5.9	8.2	3.2	14.5	17.1
Total	94.2	58.8	58.4	27.5	72.2	76.3
Austria	0.7	0.6	1.5	0.2	3.6	0.7
	Percentage shares					
Germany	10.2	10.2	10.6	26.1	42.2	14.0
France	11.8	8.0	8.2	10.5	9.7	11.3
U.K.	7.4	4.0	7.7	7.3	1.3	6.0
Other Europe	6.4	6.9	13.4	6.9	15.6	19.0
Europe	35.8	29.2	39.9	50.9	68.8	50.3
Japan	21.5	56.4	37.7	31.1	1.4	6.5
USA	10.1	4.3	8.4	6.5	9.8	20.7
Other countries	32.6	10.1	14.0	11.6	20.0	22.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Austria	0.8	1.1	2.5	0.7	5.0	0.9

Source: BIS.

Table 2: International claims by maturities and sectors

End of 1997

	Total	Maturities		Sectors		
		Short term (up to 1 year)	Long term (over 2 years)	Banks	Public sector	Non-bank private sector
			Billion USD			
Total	1,119.6	614.3	341.8	422.5	159.3	528.8
Developed countries	195.7	104.7	47.9	78.9	28.5	86.4
Eastern Europe	123.0	53.4	51.9	64.8	15.8	42.3
Russia	72.2	32.4	32.1	40.3	8.8	23.0
Developing countries	774.2	449.8	233.3	272.0	108.1	393.1
Latin America	283.0	155.0	96.7	73.6	59.9	149.0
Brazil	76.3	48.9	19.8	27.1	14.7	34.4
Middle East	52.2	31.3	16.5	23.9	10.0	18.3
Africa	58.0	32.6	19.1	19.2	10.1	28.6
Asia	381.0	230.9	101.1	155.3	28.1	197.3
Indonesia	58.4	35.4	17.3	11.7	6.9	39.7
South Korea	94.2	59.4	16.4	56.0	3.9	34.2
Malaysia	27.5	14.6	9.4	9.9	1.7	15.9
Thailand	58.8	38.8	13.8	17.8	1.8	39.2
Offshore Banking Centers	*731.3*	*527.1*	*139.1*	*407.6*	*4.1*	*317.3*
			Percentage shares			
Total	100.0	54.9	30.5	37.7	14.2	47.2
Developed countries	100.0	53.5	24.5	40.3	14.5	44.1
Eastern Europe	100.0	43.4	42.2	52.7	12.8	34.4
Russia	100.0	44.9	44.5	55.8	12.2	31.9
Developing countries	100.0	58.1	30.1	35.1	14.0	50.8
Latin America	100.0	54.8	34.2	26.0	21.2	52.6
Brazil	100.0	64.1	25.9	35.5	19.2	45.1
Middle East	100.0	60.0	31.5	45.8	19.2	35.0
Africa	100.0	56.3	32.9	33.1	17.4	49.4
Asia	100.0	60.6	26.5	40.7	7.4	51.8
Indonesia	100.0	60.6	29.7	20.1	11.8	68.1
South Korea	100.0	63.1	17.5	59.4	4.2	36.3
Malaysia	100.0	53.1	34.2	35.8	6.3	57.8
Thailand	100.0	65.9	23.5	30.2	3.0	66.6
Offshore Banking Centers	*100.0*	*72.1*	*19.0*	*55.7*	*0.6*	*43.4*

Source: BIS.

liquidity quickly, in exchange for credible evidence on a debtor country's readiness to undertake structural reform, proved to be the far more important credibility factor for financial markets. A total loss of confidence of international financial and foreign exchange markets in the creditworthiness of debtor countries could be avoided – at least for the time being – because the IMF presented itself in an affirmative way as the lead manager of the "rescue action".

As has been mentioned, however, this "new crisis strategy" by the IMF is not uncontested and the subject of engaged discussion (see in particular *Radelet – Sachs,* 1998A and 1998B). Up to the Mexican crisis of 1994, stand-by credits granted by the IMF in order to ease liquidity constraints used to be made conditional on private creditors (mostly large banks) adequately participating in the official debt rescheduling programs. The nature of foreign debt (long-term and generally not marketable) of the (mostly Latin American) countries facing liquidity problems was conducive to such proceeding by the IMF. However, since the bulk of foreign debt taken on by Mexico in the 1990s has been in short-term and marketable titles, the official liquidity assistance provided in the latest Mexican crisis under the leadership of the IMF implied that the holders of short-term Mexican dollar treasury bonds (tesobonds) were able to sell their claims without substantial losses (the government of Mexico buying back those titles with the money from the IMF). Such losses suffered, on the other hand, the owners of peso-denominated treasury bills, of shares and bonds, and of non-marketable long-term assets.

The experience of the latest Mexican crisis prompted many international investors and creditors to prefer highly liquid and internationally marketable credit and financial titles for their foreign engagements. This implied a gradual shift from equity towards debt financing, from long-term towards short-term, and from domestic towards foreign currency assets. This restructuring of financial flows heightened the liquidity risk of debtor countries, while minimizing the risk for creditors. In the East Asian crisis (also in Russia), the IMF and the World Bank, by providing stand-by credits, assumed (at least in part) the role of a lender of last resort and weakened thereby – since this had been anticipated by creditors – the incentives for responsible and efficient investor behavior. Some critics of the IMF, therefore, put the predominance of short-term foreign currency instruments (mainly short-term dollar-denominated debt titles) in the external financing of the East Asian countries, and the increase in the liquidity risk it implies for these countries, into a direct context with the bailout of Mexico by the IMF.

By way of principle, institutions acting as lender of last resort provoke risks of moral hazard; every security system is eventually confronted with this standard problem of contract or information theory. Nevertheless, such risks can be kept in check, though hardly eliminated, by an appropriate design of contracts (e.g., providing for limited insurance coverage, bonus systems, etc.) and by effective incentives. The IMF's readiness to quickly provide liquidity and stability assistance, while probably encouraging moral hazard behavior of banks, but also on the part of governments of debtor countries, has on the other hand undoubtedly reduced the danger of contagion and spreading of regional liquidity crises towards other parts of the world (Latin America, eastern Europe). There is much evidence for the economic, social and political costs of moral hazard being significantly lower than the world-wide negative repercussions of a depression in the emerging market economies caused by a liquidity crunch. Some international finance and liquidity crises in recent history have shown the puzzling fact that the effects of the crises and measures of counter-action – not only in terms of austerity – generated higher costs than those policy mistakes and structural deficiencies which led to the crises ("punishment is much larger than the crime"; see, i.a., *Chang – Velasco,*

1998). Moreover, the reproach being made to international banks and to the governments of the countries concerned, of participating only half-heartedly in fighting the East Asian crisis, appears not entirely justified: both in Thailand and South Korea international banks as well as the respective governments were substantially involved in the debt rescheduling programs (*BIS,* 1998A).

The most recent massive liquidity assistance granted to Russia by the IMF should also be seen against this background. While here the moral hazard problem in all its facets is obvious, the over-proportional international stability assistance appears nevertheless warranted, given the enormous external costs which an economic and political collapse of Russia would imply ("too big to fail"). The latest aid package for Russia of almost a total USD 23 billion for this year and next – financed by the IMF, the World Bank and Japan, and tied to the implementation of specific reforms such as the introduction of a 20 percent V.A.T. – should therefore be used, i.a., for an orderly transition from a fixed exchange rate regime towards a system of managed floating, for the restoration of basic liquidity in the wider public sector and for confidence-building measures in the financial and budgetary domain.

BANKS SET TO CONTAIN THE CRISIS

According to the latest data collected by the BIS on international credits for the second semester of 1997 and the first quarter of 1998, the stability of the international financial market system, in spite of the important re-allocation of funds that has occurred, has not been seriously jeopardized, thanks to essentially the IMF quickly stepping in as lender of last resort. (At the present stage it is too early to assess the repercussions of the Russian crisis on financial markets). While the BIS itself warns against over-interpreting these data[2], they suggest that international banks have made a substantial contribution towards "contagion containment", by granting credit on a selective basis to potentially endangered countries and regions, such as Latin America or eastern Europe (*BIS,* 1998B). Banks' reinforced engagement in eastern Europe and Latin America during the Asian crisis at least partly offset the abrupt liquidity shortage suffered by countries in these regions, caused by an almost complete "drying up" of their primary markets for internationally marketable fixed-term assets in the fourth quarter of 1997 – a direct consequence of the Asian crisis and the "safe haven" reflex it provoked. Although international banks have rather restrained their engagement in the emerging market economies over the past months (from USD 39 billion in the fourth quarter of 1997 to USD 8 billion in the first quarter of 1998), this has had no negative impact on the stability of financial markets. The total volume of international credits recorded by the BIS went up by a record 21 percent in 1997, to a level of USD 481 billion, with most of the expansion falling into the fourth quarter. In order to secure the international liquidity of banks directly or indirectly affected by the Asian crisis, inter-bank financing was strengthened towards the end of 1997 (with inter-bank redepositing rising from USD 55 billion in the third quarter of 1997 to over USD 480 billion in the year-end quarter). Thus, sufficient extra liquidity was put at the disposal of Japanese, but also European banks with high exposure in Asia, allowing them to maintain their international commitments. Nevertheless, Japanese banks substantially restricted the granting of foreign credits in the first quarter 1998. European banks continued expanding their foreign engagements, but confined them largely to intra-European transactions.

A comparison of international bank credits by maturity and debtors between 1996 and 1997 on the basis of annual data now being available does not show any major changes vis-à-vis the evidence conveyed by the semi-annual data (*Hahn et al.,* 1998). This also holds for the comparison of the latest data on bank credits, broken down by debtor countries. The overhang of short-term foreign funds in the East Asian crisis countries (Indonesia, South Korea, Malaysia and Thailand) was reduced in 1997, as expected; still, far more than half of these countries' credit obligations continues to be short-term (periods up to one year). Some of the Asian crisis countries, however, show a tendency towards bypassing domestic banks by establishing direct credit relations between foreign banks and domestic non-banks (Table 2).

Developments in the regional distribution of international bank credits during 1997 clearly show that, despite the crisis, European banks have even slightly increased their engagement in Asia. This increase is almost entirely accounted for by liquidity assistance provided by large German, French and U.K. banks to Indonesia, Malaysia, South Korea and Thailand, the countries most severely hit by the crisis. Other European banks (including the Austrian ones) rather decreased their engagements in the countries concerned during last year, as did the North American and the Japanese banks. The retreat of Japanese financial institutions is to be viewed within the context of the structural banking crisis in Japan and with debt rescheduling transactions, which are not or only in part documented in BIS statistics.

North American banks, however, retreated from all regions of the world, with the exception of the Middle East. They even reduced their engagements in Latin America

[2] For the structural weaknesses of BIS statistics, see *Hahn et al.* (1998).

Table 3: International claims by regions

Debtor		Total	European banks		North American banks	Japanese banks	Other banks
			Total	Austrian banks			
		Billion USD	Percentage shares				
Total	End 1996	991.4	54.2	2.3	15.0	17.1	13.7
	Mid 1997	1,054.7	55.8	2.3	14.2	16.4	13.6
	End 1997	1,119.6	59.6	2.2	13.8	14.6	12.0
Developed countries	End 1996	171.0	56.4	2.1	8.5	14.9	20.2
	Mid 1997	183.3	56.4	2.3	9.7	13.2	20.7
	End 1997	195.7	60.3	2.0	8.4	12.1	19.2
Eastern Europe	End 1996	103.0	79.5	8.4	9.3	3.9	7.3
	Mid 1997	116.5	79.3	7.9	10.1	3.4	7.2
	End 1997	123.0	80.4	7.6	8.9	3.4	7.3
Asia	End 1996	367.0	42.2	1.5	11.0	32.3	14.5
	Mid 1997	390.5	43.9	1.6	10.1	31.7	14.3
	End 1997	381.0	47.1	1.5	9.7	30.1	13.1
Latin America	End 1996	242.4	54.2	0.8	31.2	6.4	8.2
	Mid 1997	252.3	58.6	0.8	27.6	5.8	8.0
	End 1997	283.0	61.8	0.7	26.4	5.2	6.6
Middle East	End 1996	48.6	66.0	2.2	8.9	5.8	19.3
	Mid 1997	50.9	64.0	2.2	10.0	5.8	20.2
	End 1997	52.2	62.4	2.2	10.9	6.5	20.2
Africa	End 1996	50.2	74.3	4.5	8.6	6.9	10.2
	Mid 1997	52.5	70.0	3.8	11.9	6.5	11.6
	End 1997	58.0	78.4	3.5	9.7	4.8	7.1

Source: BIS.

(Table 3). Moreover, the regional distribution in the latest BIS credit statistics gives the basic impression that, next to the IMF, it is the European banks which have made the biggest contribution towards securing the liquidity of the international financial system and towards contagion containment that has (so far) proved successful[3]. Eastern Europe and Latin America also obtained liquidity and stability assistance in 1997 mainly from European banks. Their exposure vis-à-vis potential crisis regions, which has grown over the last years, now apparently obliges them to participate in the respective international action programs, in order to protect their own engagements put at risk. The low earnings capacity and the structural weaknesses of European banks, and the resulting tendency for them to take higher risks, pose a new threat for the financial system in Europe and world-wide; doubt is also cast on the ability of the IMF and the World Bank to play their role in the future, given the growing problems of refinancing both institutions are facing.

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[3] It is also true, however, that the European banks, notably those in Germany, France, the U.K. and the Netherlands, benefited the most from the IMF being a lender of last resort.

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Currency Crises: A Challenge for Economic Theory and Policy – Summary

From the viewpoint of policy makers, the understanding of the causes and the course of financial crises remains inadequate. The theoretical analysis of currency crises has been hampered by the lack of empirical regularities in those of the past. Nonetheless, attempts are made repeatedly to provide a canonical explanation of international financial crises and to propose economic policies to prevent such crises. This article surveys the recent theoretical, empirical and economic policy literature on financial crises (with emphasis on the Asian crisis).

Much of the recent theoretical literature, in particular that dealing with the Asian crisis, refers to the complex relationship between the constitutive imperfections of financial markets resulting from asymmetric information and the worldwide liberalization of the financial and capital markets. It is an outstanding feature of financial markets that they are strongly dominated by expectations. The actual market outcome may correspond to expectations even if these expectations were unjustified ex ante or absurd. Thus, expectations determine whether market outcomes tend toward a "good" or "bad" equilibrium. In principle, changes in international investors' expectations for the worse – whether justified or not – may trigger crises (self-fulfilling crises) and move a country from a "good" (high growth) to a "bad" (low growth) equilibrium.

According to the views of leading theoreticians and practitioners, this mechanism was the preeminent element of the Asian crisis. It is a surprising insight that "self-fulfilling crises" may indeed be the result of rational behavior, given the constitutive imperfections of financial and capital markets. In a world of liberalized financial markets, such crises cannot in principle be averted and are very difficult to forecast. A reversal of the liberalization of financial markets or the re-introduction of capital controls would be the wrong response, however. A superior option in economic policy is the establishment of "support" systems to increase the efficiency and stability of international financial markets. Core elements of such systems would be institutions of financial surveillance and monitoring, which among other tasks could fulfill the important function of a "lender of last resort" at the international level, and provide an internationally accepted set of rules for standstill agreements, debt relief for and financial default of countries.