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Vierteljahrshefte zur Wirtschaftsforschung

**Provided in Cooperation with:**

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Suggested Citation: Horn, Gustav A.; Schrooten, Mechthild (1999) : Twin Crisis in Asia: The Failure of Fixed Exchange Rate Regimes and Delayed Institutional Adjustment, Vierteljahrshefte zur Wirtschaftsforschung, ISSN 0340-1707, Duncker & Humblot, Berlin, Vol. 68, Iss. 1, pp. 10-21

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# Twin Crisis in Asia: The Failure of fixed Exchange Rate Regimes and delayed Institutional Adjustment

By Gustav A. Horn and Mechthild Schrooten\*

## Summary

*Dynamic growth and a substantial inflow of international capital characterised for a long time many economies in South-east Asia. However, in 1997 the region was confronted with a deep currency crisis. Prior to the crisis neither inflationary trends nor government debt pointed to a worsening of the economic situation. It seems that focusing on these traditional crisis indicators even prevented early recognition of the dangers in Thailand, Indonesia and Korea, the three countries considered here. Current developments indicate that the crisis in Asia is far from over. For the Asian countries, the danger of crisis will remain as long as the combination of a fixed exchange rate and wage inflation on the one hand and a lagging institutional framework on the other will coexist. Any attempt at reform is doomed to failure unless an exchange rate strategy and an institutional framework is selected that is appropriate to macroeconomic and institutional convergence between Asia and the USA.*

## 1. Motivation

Dynamic growth and a substantial inflow of international capital were for a long time the predominant characteristics of many economies in South-east Asia. However, in 1997 the currency crisis led to a major revision of the economic performance ranking of the region by the leading international financial institutions. Prior to the crisis, neither inflationary trends nor government debt pointed to a worsening of the economic situation. It seems that focusing on these traditional crisis indicators even prevented early recognition of the dangers in Thailand, Indonesia and Korea, the three countries considered here.

The three countries shared a regime of pegged exchange rates. The aim of this policy was to import price stability while at the same time creating an attractive framework for foreign investment in these countries. In this paper it is argued that such an exchange rate regime requires not only the convergence of inflation rates between the developing and the anchor-currency country, but also major institutional adjustments. However, the countries under consideration forced such an adjustment process neither in the economic relevant wage-finding procedure nor in the financial sector. Hampered by institutional rigidities, the countries were ill prepared for a full integration into international factor markets. Consequently, latent institutional tensions became the key risks for the Asian economies.

The paper is organised as follows: the following section outlines the causes and problems of high real wage increases after implementation of fixed exchange rates. Section three analyses the consequences of high interest rate differential between domestic and international financial markets in the context of different institutional and regulatory frameworks. In section four, we highlight behavior of Asian firms and distinguish differences from Western companies in the context of a lacking social security system. In our conclusions, we discuss the future challenges for the Asian economies.

## 2. Wages and Exchange Rate Pegs

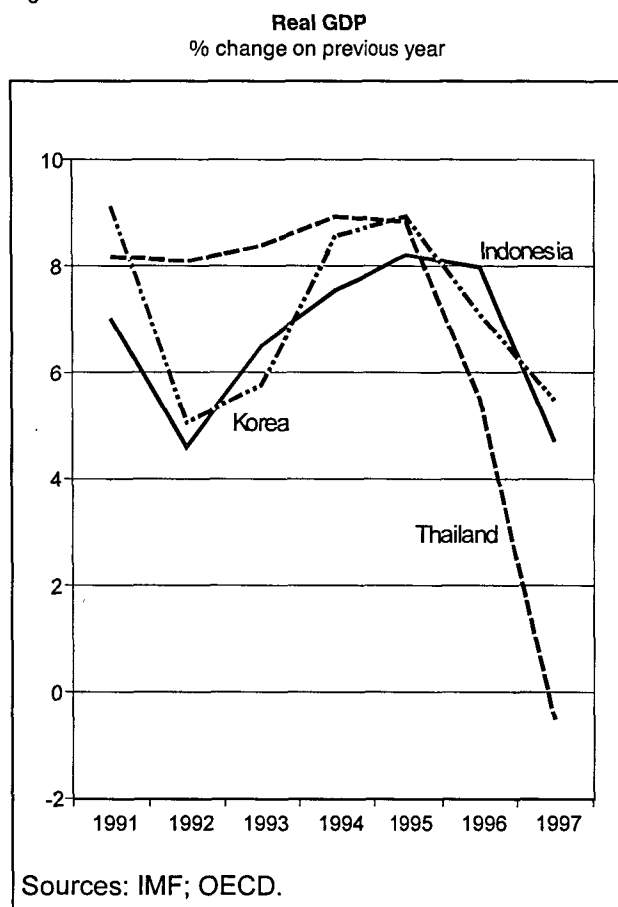
Current developments on the foreign exchange markets indicate that the crisis in Asia is far from over. This marks the end of a period with sustained and dynamic economic growth experienced by the region (cf. figure 1).

Although the South-east Asian newly — industrialising countries had over the years caught up in economic terms with the industrialised countries, they are now in danger of falling back again. In the past, the exchange rate policy pursued by these countries was viewed widely as a central element in promoting their economic development. During the

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Figure 1



1990s, this consisted basically of pegging the exchange rate, with varying degrees of rigidity, to an anchor currency (the US dollar). The aim of this policy was to import price stability from the USA and at the same time to create reliable monetary conditions with minimal nominal exchange rate fluctuations. The underlying aim was to promote the import of foreign capital which should be protected from exchange rate shocks. The additional supply of financial resources thus generated was regarded as necessary to achieve more dynamic economic growth in these countries than would have been possible if only domestic resources were mobilised.<sup>1</sup>

A necessary precondition for the sustainability of such a strategy is that inflation rates converge with those of the anchor country without hampering domestic profits. In this case, a real appreciation, which in the long run may lead to high current account deficits, can be avoided. Sometimes it is argued that developing countries necessarily face a real appreciation.<sup>2</sup> This statement is based on the assumption that world market prices of tradable goods are the same for each country and inflation differences thus can only occur by differing price movements in the non-tradable sector. In the light of flows of goods and labour between different sectors of an economy the distinction between tradable and non-tradable goods is purely theoretical. Price movements

in both sectors are interdependent, since e.g. costs of intermediary products also play a major role for the competitiveness of an economy. Therefore, it is advisable to use instead aggregate prices to picture the inflation developments and to use this indicator as well to measure real appreciations.<sup>3</sup> Using this concept of competitiveness, it is far from obvious why a developing country must necessarily face a real appreciation of its currency. On the contrary if in such a country wage increases are relatively low and productivity gains relatively high compared to already industrialised countries they should show a real depreciation.

Another precondition for a successful currency policy is that profit rates should not be lower than in the anchor country to preserve an incentive for an influx of foreign capital. This can be achieved only if unit labour costs and real unit labour cost trends are oriented towards relations in the anchor-currency country. On the one hand, this averts the danger of prices in the pegged country becoming higher than in the reserve-currency country because wages are growing at a rate not compatible with the admissible inflation rate. On the other hand, the relative profitability of investments is maintained.

These conditions have not been met in the emerging market countries under consideration. Thus, fundamental changes are required. In particular, wage formation has to be transformed to the standards of industrialised countries. If the inflation rate requirement is fulfilled, wages must follow productivity in the same way as in the anchor country. This limits the feasible scope of institutional settings for wage formation. Only if these structural conditions are met, do unit labour costs behave in such a way that no inflationary push is created which in the end may cause a real appreciation. Even if such a push does not lead to a higher inflation rate because of strong competition, the effect is adverse. Whilst there is no real appreciation, profits are squeezed since firms cannot pass the higher labour costs into higher prices. Under these circumstances real unit labour costs will be higher and profits lower than in the reserve currency country. Thus, real unit labour costs are considered here as an appropriate indicator of the aggregate profit situation.

The extent to which institutional convergence is required is determined by the rigidity of the exchange rate peg. If the exchange rate is fixed, inflation rates in the currency area should be roughly equal over the longer term. However, many countries allow for a longer adjustment period, for example with a view to the substantial institutional differences vis-à-vis the anchor-currency country, and thus opt for a less-demanding form of exchange rate peg, one that from the outset permits devaluations at a predetermined rate.

<sup>1</sup> Diehl, Schweickert (1998).

<sup>2</sup> Diehl (1999).

<sup>3</sup> Bundesbank (1998).

This "crawling peg" mechanism permits differences in inflationary trends up to the rate at which the currency is devalued, without the currency appreciating in real terms. In such a case the adjustment constraints are far less stringent than if nominal exchange rates are fixed.

In the following, we will make a case for the hypothesis that the violation of the above conditions necessary for a sustainable exchange rate peg is at the core of the Asian crisis. Either the Asian countries have faced a real appreciation and, in turn, high current account deficits, or the firms saw their profits squeezed. In the end, the findings lead to the conclusion that the wage formation in these countries has not been adequate for a regime of pegged exchange rates.

The three countries considered here, Thailand, Indonesia and South Korea, were all characterised by exchange rate pegs of varying rigidity. In the case of Thailand, the exchange rate of the baht to the US dollar was roughly constant from 1990 to mid-1997; that is, the exchange rate was fixed and the country attempted to maintain an extremely close link to the dollar. The Indonesian rupiah, by contrast, depreciated during the same period in

Figure 2

Exchange Rate Trends

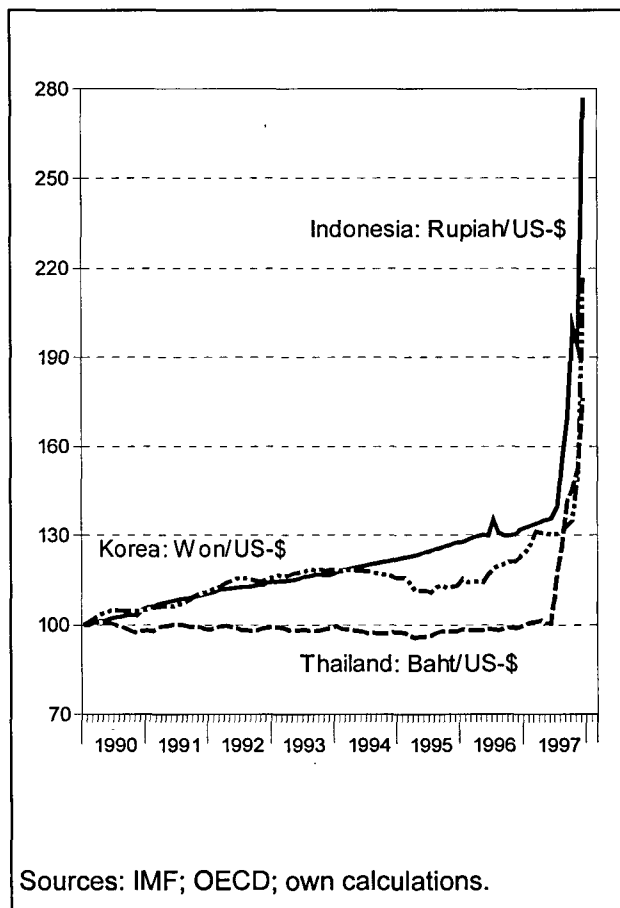
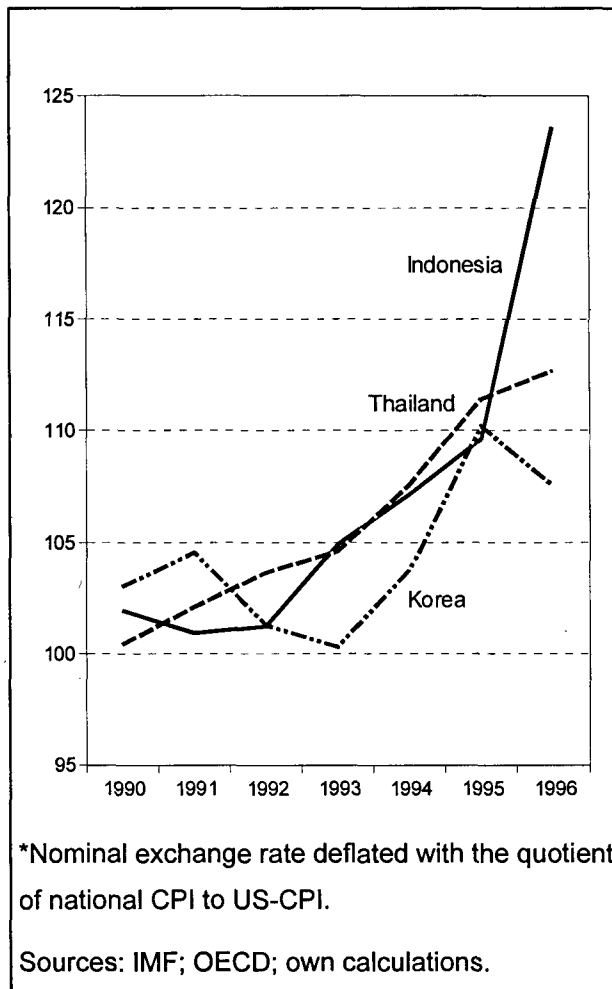


Figure 3

Real Exchange Rate in US-Dollar\*



nominal terms by between 3 % and 5 % every year (cf. figure 2). Between 1990 and 1994 the Korean won followed a similar trend to the Indonesian currency. Between 1994 and the summer of 1995 it experienced a slight nominal revaluation totalling just over 6 %. This was followed, prior to the outbreak of the currency crisis, by a substantial depreciation. By the start of 1997, the Korean won had already lost more than 11 % of its value compared to its maximum in 1995. Thus, Korea's exchange rate policy was considerably less steady than that of the two other countries.

The data reveal that the currencies of Thailand, Korea and Indonesia appreciated in real terms during the 1990s (cf. figure 3). This was most pronounced in the case of Indonesia, at over 20 %, whereby the continuous nominal devaluation was far from sufficient to compensate for the inflation-rate differential to the USA. The real appreciation accelerated in 1995/1996 as inflation picked up, while at the same time the dollar depreciated. Thailand was also forced to accept a real appreciation of its currency, albeit a less

dramatic one, with the result that by 1996, the real external value was almost 15 % higher than in 1990.

In contrast, the real appreciation in Korea was not very pronounced. Nevertheless, the external balance was at times deteriorating. But of much more importance were the internal developments. Since 1986, wage rises in Korea have led to a significant increase of real unit labour costs. However, firms obviously were not able to transfer these costs accordingly into higher prices. In other words, there was a profit squeeze reducing the profitability of industrial investment in Korea significantly. In particular, profitability worsened in relation to the US economy, so that even if the profitability of Korean firms was higher in 1986, the gap may have been reversed since then (cf. figure 4).

In addition to the precariousness inherent in the development strategy, destabilising effects also came from outside the region. From 1995 the dollar rose in value, pulling up the pegged currencies with it, so that for this reason alone the real appreciation against third currencies accelerated. On top of this, the ever-increasing degree of price stability in the USA (cf. figure 5) made the adjustment target in terms of inflation in the South-east Asian countries increasingly ambitious, and thus a failure of inflationary convergence became increasingly probable.

The shifts in real exchange rate parities had repercussions for the competitiveness of the three countries. Real appreciation made export goods increasingly expensive and imported goods cheaper and cheaper. This led in some cases to considerable current account deficits (cf. figure 6). In Thailand, where the real appreciation had been most pronounced, the negative turnaround on the foreign trade balance was greatest, with a deficit of almost 9 % of GDP in 1995. In Indonesia and even more so in Korea, the deficits were considerably smaller as a proportion of GDP. Even so, they increased sharply in 1995 and 1996 as real appreciation was particularly strong in these years. All in all, it was inevitable that the policy of adjustment by means of the currency peg would at some point lead to tensions on the foreign exchange and capital markets. The probability of a sustained current account deficit and a deep currency crisis grew.<sup>4</sup>

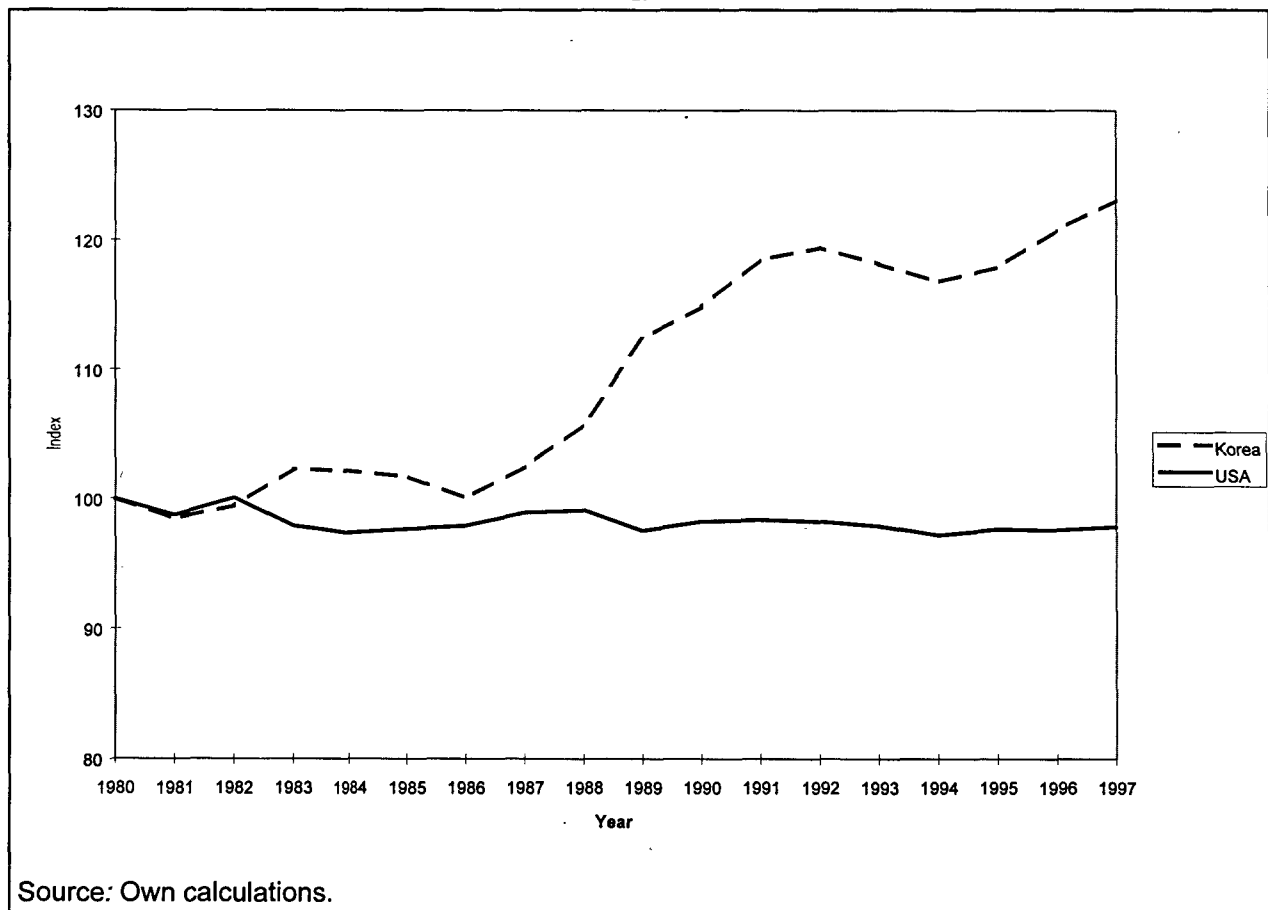
### 3. Monetary and Financial Markets Conditions

In the countries under consideration the overall development strategy — beyond differences in details — seemed to

<sup>4</sup> Krugman (1979); Obstfeld (1986); Krugman (1994).

Figure 4

Real Unit Labour Costs in National Currency



be the same: international capital should force the catching-up process; foreign direct and portfolio investment was considered as the important source for sustainable economic growth. To improve the attractiveness for international investors and to promote the investment process stable macro-economic conditions had to be implemented. At the same time the monetary policy of the central bank had to meet the inflation target; therefore refinancing rates set by central banks had to be — in comparison with those in industrialised countries — extraordinary high. It could have been expected that such a "restrictive" monetary policy would have had induced negative consequences for the development process in the Asian countries. However, in the economies under consideration the investment rates remained very strong, despite the relatively high interest rates. This was caused mainly by two factors, which worked very close together: on the one hand, firms could realise even higher real rates of return, so that investment was more attractive than offering capital on the financial market. On the other hand, credits to firms were often given at preferential rates, so that consequently the money market interest rates were not operating as the most important signal for their investment decisions. The dynamic economic growth permitted a rapid rate of capital accumulation in the domestic economy. This manifested itself

Figure 5

**Inflation Rates**  
% changes on previous year

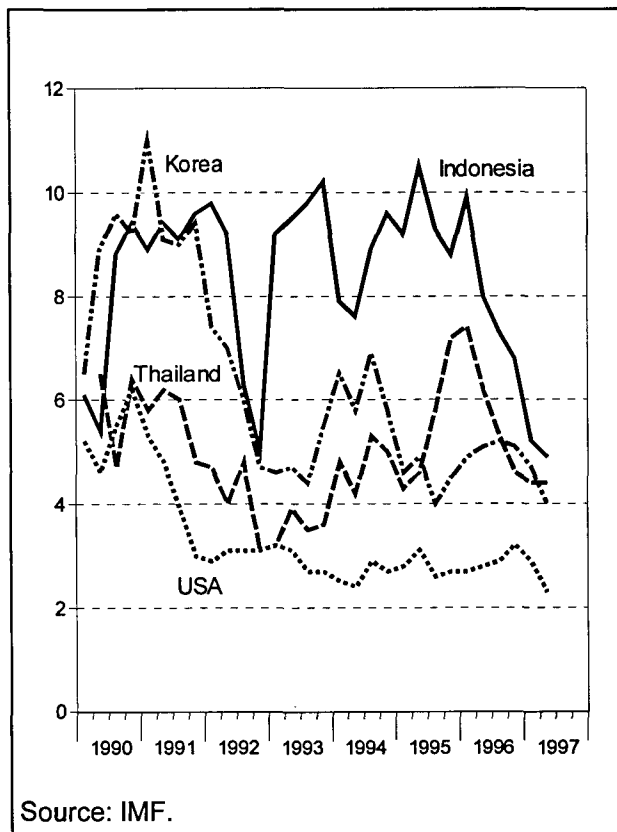
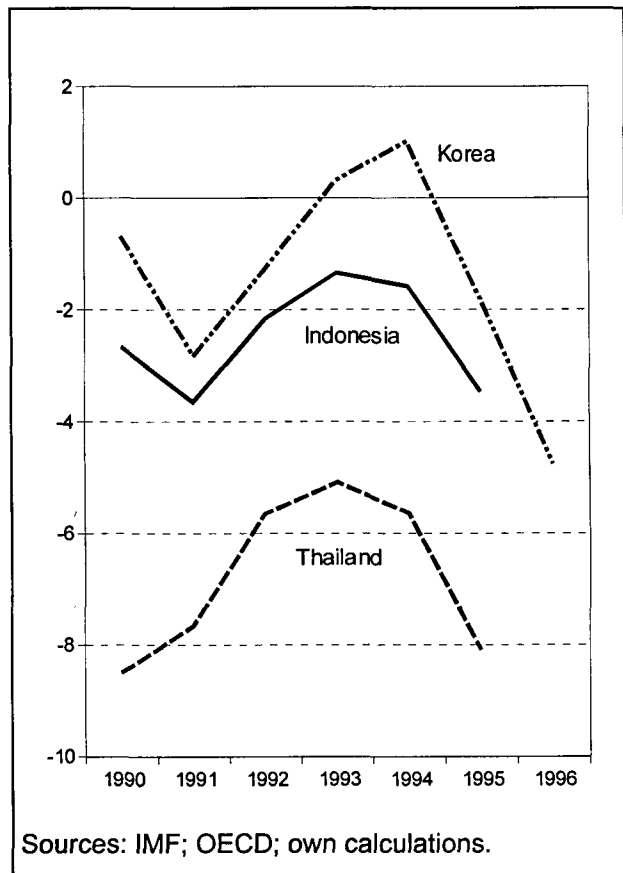


Figure 6

**Current Account Deficits**  
as percentage of GDP



in an investment share of more than 30 % of GDP in all these countries (cf. figure 7).

Despite the fact that in the Asian economies domestic saving was very high, these countries were increasingly demanding capital on the global capital markets. Responsible for this was not only the chosen development strategy, but also the growing current account deficit. Since the capital market interest rates in Korea, Indonesia, and Thailand were substantially higher than in the USA, the implemented combination of exchange rate and interest rate policy generated and guaranteed high rates of return for foreign financial investors.

This effect can be illustrated with reference to the Korean case. Looking at the real rate of return from the different perspectives of Korean and American investors, conclusions can be drawn about the impact of interest rate trends on capital flows (cf. figure 8).

Generally speaking, the real rate of return has been higher than in the USA, not only in Korea but in almost all Asian countries. Since the start of the 1990s the gap has been considerable. Assuming that investors base their evaluations of real rates of return on the prevailing national inflation rates, a difference emerges in the yields earned by domestic and foreign investors. The real rate of return for

American investors was far higher in Asia than on the domestic market. Conversely, the real rate of return for Asian investors was markedly higher at home than in the USA. The interest rate differential between these countries and the USA reflected not least the different risks involved in capital investment between the regions. On top of this came the fact that for Asian borrowers, given nearly fixed exchange rates, it was cheaper to borrow on the international financial markets than on the domestic market precisely because of this interest rate differential. Obviously, financial investors for a long time considered the exchange rate commitments of these countries as credible.

However, the strategy of combining externally financed growth with a pegged exchange rate and capital inflows induced by higher interest rates brought with it serious risks, due to the stringent adjustment requirements implied.<sup>5</sup> In order to be able to finance higher capital market yields over the longer term, rates of return on real capital had to be at least as high as (real) interest rates on the capital market. In contrast to the declarations after the economic breakdown in Thailand, the risks of these markets should have been well known to foreign investors. First, it had to be doubted whether, in the course of the catching-up process, the Asian countries would in fact be able to earn such high

Figure 7

Gross Investment Share as a percentage of GDP

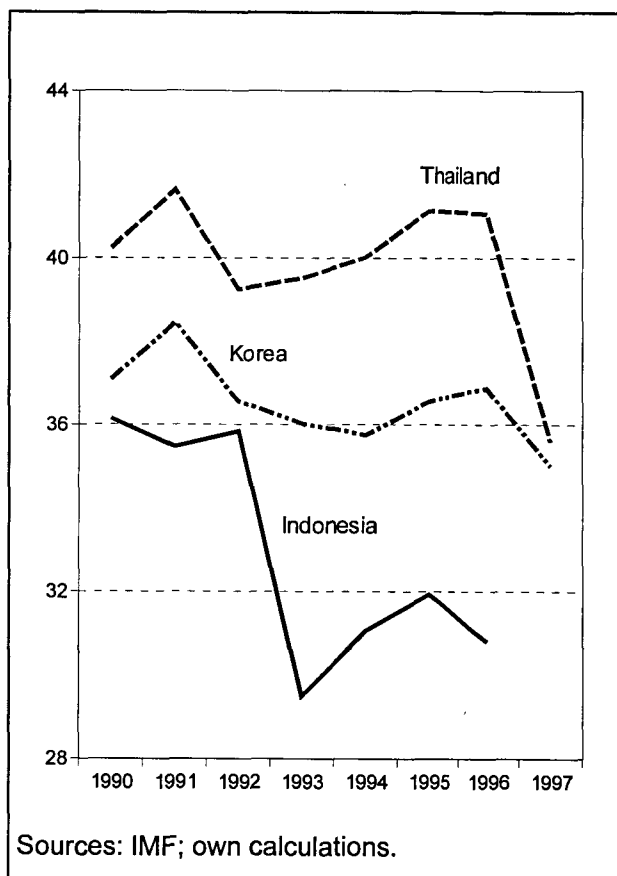
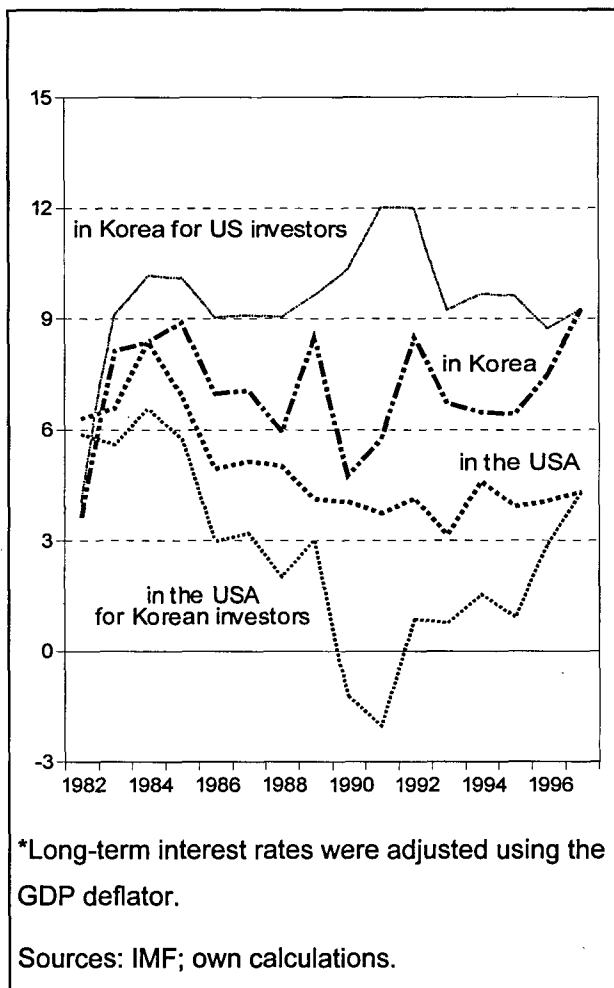


Figure 8

Real-Long-term Interest Rates



yields over an extended period. Both economic theory and empirical evidence suggest that real rates of return decline in the course of the catching-up process, because capital productivity declines. Second, it was not the government, but rather national commercial banks that borrowed most on the international capital market. Yet the banks operated under relatively "soft" institutional conditions; in many cases the regulation of financial intermediaries in Asia was far from meeting international standards. But even if the bank sector had fulfilled the required equity quotes, a solvency crisis would not have been preventable since the institutional framework made risky lending attractive.<sup>6</sup> The analysis of financial market regulation in the Asian countries could have given international investors and ranking agencies soon the impression that the efficient allocation of domestic lending was not guaranteed.<sup>7</sup> This was exacer-

<sup>5</sup> Buch, Heinrich (1998).

<sup>6</sup> Sundararajan; Balino (1991).

<sup>7</sup> Krugman (1998).

Table 1

**Foreign debt<sup>1)</sup>**  
in US-\$ millions

	1990		1991		1992		1993		1994		1995			1996			1997				
	WB <sup>a)</sup>	OECD <sup>b)</sup>	WB <sup>a)</sup>	OECD <sup>b)</sup>	WB <sup>a)</sup>	OECD <sup>b)</sup>	WB <sup>a)</sup>	OECD <sup>b)</sup>	WB <sup>a)</sup>	OECD <sup>b)</sup>	WB <sup>a)</sup>	OECD <sup>b)</sup>	BIS/ OECD <sup>c)</sup>	BIS <sup>d)</sup>	WB <sup>a)</sup>	BIS/ OECD <sup>c)</sup>	BIS <sup>d)</sup>	Nat. s.e) BIS <sup>d)</sup>	Nat. s.e)		
	Indonesia																				
Total debt	69 934	68 067	79 548	77 274	88 002	86 451	89 172	88 470	107 824	99 243	49 900	124 398	111 537	58 088	44 500	129 033	65 635	55 500	59 045	58 388	57 860
Long-term debt <sup>2)</sup>	58 305	52 793	65 067	63 253	69 945	69 457	71 185	70 170	88 367	78 094	—	98 432	80 094	—	15 486	96 803	—	18 926	—	21 013	—
IMF-lending	494	—	166	—	0	—	0	—	0	—	—	0	—	—	—	0	—	—	—	—	—
Short-term debt <sup>2)</sup>	11 135	15 116	14 315	13 698	18 057	17 596	17 987	17 877	19 457	20 575	—	25 966	30 923	—	27 546	32 230	—	34 244	—	35 383	—
	Korea																				
Total debt	—	46 797	—	54 746	—	59 246	—	66 180	—	85 555	63 631	—	113 463	84 862	77 500	—	109 962	100 000	157 500	94 180	154 400
Long-term debt <sup>2)</sup>	—	23 710	—	29 370	—	33 755	—	38 050	—	44 847	—	—	53 832	—	14 570	—	—	20 000	57 500	21 657	86 000
IMF-lending	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Short-term debt <sup>2)</sup>	—	22 790	—	25 108	—	25 230	—	27 800	—	40 179	—	—	58 969	—	54 250	—	—	67 500	100 000	59 444	68 400
	Thailand																				
Total debt	28 088	30 341	37 705	37 164	41 812	42 906	52 668	52 622	65 522	77 163	60 204	83 166	116 226	100 320	62 800	90 823	106 332	70 100	90 600	58 835	91 700
Long-term debt <sup>2)</sup>	19 765	20 891	25 213	24 845	27 085	26 114	30 034	28 486	36 343	35 683	—	42 071	45 689	—	17 144	53 210	—	21 170	53 000	17 991	63 100
IMF-lending	1	—	0	—	0	—	0	—	0	—	—	0	—	—	—	0	—	—	—	—	—
Short-term debt <sup>2)</sup>	8 322	8 517	12 492	11 188	14 727	15 442	22 634	22 618	29 179	39 705	—	41 095	68 637	—	43 583	37 613	—	45 705	37 600	38 772	28 600

1) At year's end. — 2) In the case of OECD and BIS, the long- and short-term debt do not sum to total due to a non-classifiable residual.

Sources: a) World Bank, Global Development Finance, 1998. — b) OECD, External Debt Statistics, Supplement, 1985 to 1996, 1997. — c) Bank for International Settlements Basle (BIS) and OECD, Statistics on external indebtedness, New Series, No. 18 (January 1997), No. 20 (January 1998). — d) BIS, Consolidated international banking statistics, January and May 1998. — e) National source: Bank Indonesia, Financial Statistics, April 1998, (downloaded from the internet in May: <http://www.bi.go.id/>); Press Release by the South Korean Ministry of Finance and Economy, Unofficial Summary Translation, April 1, 1998 (downloaded from the internet in May 98: <http://kiep.go.kr/IMF/hoi-2-17.html>).



bated by the fact that the commercial banks had close links to, or were owned by, the public sector.<sup>8</sup> In addition, around one quarter of lending was made by financial intermediaries whose credit policy was in any case subject to special conditions (e.g. development banks). And last but not least, financial crisis seemed to be an inherent factor in the Asian development process; here many countries were confronted in the early nineties with a banking crisis. Putting it somewhat simply, one may conclude that the countries affected with the "Asian flu" in the later nineties had not only an exchange rate regime that was regulated by the state, but also had a long tradition of the financial market intervention. This created the illusion that domestic financial intermediaries could count on an implicit government risk guarantee, and implicitly also international investors, could roll over the credit risk to national governments. In a nutshell, the legal and institutional framework itself made a banking crisis likely; but the moment when such a crisis would occur was unknown.

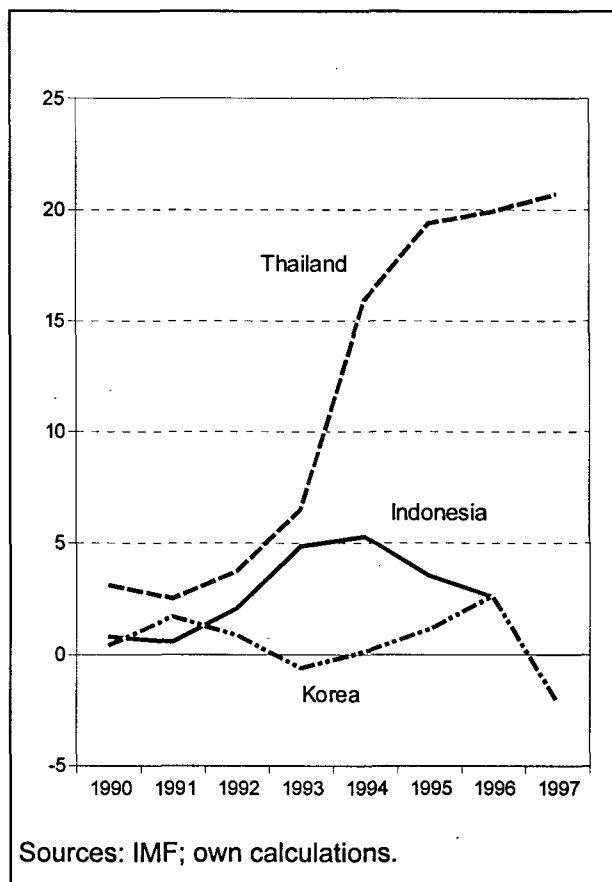
While this constellation was well-known by foreign investors, they increasingly reacted by a reallocation of the time structure of credits. Despite the relatively fixed exchange rate and the implicit capital market "insurance" given by the state, they tried to minimise risk and to maximise risk premium. Contrary to statements issued ex post, internationally active financial intermediaries with investments in Asia seem to have been well aware of these dangers and had reacted at an early stage.

Since the demand for international capital in the Asian countries was high, the global supply of liquidity caused by low interest rates in most of the industrialised countries met immediately with high demand; in the 1990s borrowing by the Asian countries on the international capital market had increased significantly. In Thailand, for example, foreign debt tripled between 1990 and 1996. The Bank for International Settlements (BIS) had pointed out in 1994 that Thailand, against the background of a persistent increase in overall borrowing, was increasingly reliant on short-term funds (cf. table 1). Under these circumstances, such fundamental indicators as changes in real exchange rates and the maturity structure of foreign debt could have been used to identify a financial crisis at an early stage. The fact that this did not occur and, moreover, the fact that it was even pointed out ex post that the usual macro-economic indicators had failed to predict the crisis must be put down primarily to the fixation with government debt.<sup>9</sup> In Asia, however, this indicator reflects only a proportion of government activities, hiding the effective public sector involvement due to the specific institutional conditions prevailing.

The Asian constellation gained its sharpness when the banking sector started to take credits on the international financial market.<sup>10</sup> The domestic banking sector became the most important interface between the international financial sphere ruled by the calculus of efficiency and by domestic borrowing under specific, implicitly state-guaranteed conditions. Since the inner structure of the

Figure 9

**Open Foreign Currency Position  
of Commercial Banks as a percentage of all claims**



domestic financial markets often hindered an efficient credit allocation and an effective financial intermediation, it became more and more uncertain whether the interest rates offered could be paid out of entrepreneurial activities. But against the backdrop of rising real estate values, the balances sheets of firms gave the impression of an ongoing economic boom.

However, the domestic banking sector, operating as an interface between efficient and non-efficient borrowing, came under specific pressure when the open foreign positions in bank balances reached dangerous proportions. In Thailand, where the crisis had begun, the banking sector had showed a tremendous open foreign currency position since 1996 (cf. figure 9).

At that time, just 15 % of banks' foreign debts were covered by corresponding claims. By June 1997, this figure had fallen to 6 %. This tension within the financial sector forced a solvency crisis in the Thai banking sector at the beginning of the Asian crisis. At the latest with the collapse

<sup>8</sup> Stiglitz (1994).

<sup>9</sup> Goldfajn; Valdes (1997); Kaminsky; Lizondo; Reinhard (1997).

<sup>10</sup> Kaminsky; Reinhard (1996).

of the largest Thai financial holding company "Finance One" in the spring of 1997, the seriousness of the situation became all too apparent<sup>11</sup>. In the summer of 1997, the Thai government provided 3.9 billion US dollars in short-term funds alone in order to restructure the portfolios of financial intermediaries who had borrowed in foreign currency, but were unable to honour their commitments because of the inability of their creditors to meet their obligations. Contrary to what was subsequently claimed, this signal was well understood by the many internationally active financial institutions; starting in May, capital was increasingly withdrawn, and the crisis began to take the form of a self-fulfilling prophecy. The crisis itself was then nothing more than the open manifestation of the tensions between different rules in different, but open economies. Up to the sharp fall, the destabilisation and the transformation problems of the Asian economies had remained largely latent.

#### 4. The Broken Model of Asian Capitalism

The institutional setting of these emerging market countries and the exchange rate policy were clearly on an unsustainable path which in the end poses a threat to the Asian model of capitalism. Until the crises broke out, social stabilisation was not a primarily public affair, but rather, left either to family structures or, in the more developed economies, to firms. These settings were sometimes supported by public regulations. In Korea for example, private employment was seen as permanent and rigid laws prevented lay-offs or even firing by employers. Thus, firms were bereft of any significant bargaining power when negotiating wage settlements. This explains why wage hikes in these countries did not follow a productivity-oriented path, at least not to the same extent as demanded by the exchange rate peg.

The failure to generate competitive wage paths led to the decline of firms profitability. Either they faced a profit squeeze because they could not increase prices to cover higher production costs or they lost their international competitiveness by charging too-high prices. In either case, quite a few firms would have gone bankrupt under the usual western-style economic institutional setting. Investments and credits would then have shrunk, driving firms out of the market. Thereby a correction of the wage path would have occurred in due time. In the emerging market economies, the demand for credits under these circumstances also rose, but the close involvement of the state and the interdependence with the banking sector guaranteed that the credit demand was satisfied, keeping firms alive.

This amounted to a transfer of the social stabilisation function from the firms, which could not fulfil them anymore in the light of the wage settlements, to the banking sector. Given the liberalisation of international capital flows, the shift could also be of a temporary nature only. The credits the banks yielded to firms were of a rather long-term nature, whereas the increasing international liabilities were short-

term. Obviously, foreign lenders perceived to some extent the rising risks in these countries. The increasing deficits of the external balances during the nineties may have contributed to this perception. In the end, the banking sector too could no longer fulfil its stabilisation role. As in the long term industrialised countries, here too, the state has to perform this task. Thus, in line with reform in the banking sector, the institutional setting more and more resembles those of western style market economies. What in the end happens is the "import" of western style institutions despite the initial resistance of some countries to follow such a path. The initial programs of the IMF which demanded a very restrictive financial policy amounted to the denial of any social stabilisation. In the meantime, the programs have been adjusted to some extent to the social needs of these economies. But this effectively means the end of the Asian form of social security.

#### 5. Lesson for the Future

Initially, the drastic currency devaluations, starting with the floating of the Thai baht, led to an explosive increase in foreign debt in terms of GDP in national currency, even though government debt in these countries was relatively low (cf. figure 10). Domestic banks were confronted with defaulting debtors and were themselves increasingly unable to service their debts on international financial markets. Unlike in previous international currency crises, indebtedness was largely a result of private transactions. Under the assumption of a fixed exchange rate and of a government bail-out, it had been possible to equate the expected real rate of interest with the expected risk-adjusted return on financial transactions. The sudden shift in exchange rates, however, changed the basis for this calculation. As the government's reserves of foreign currency had already been exhausted in the attempt to stabilise the exchange rate and the inefficient banking sector, this situation must have appeared all but hopeless to international creditors.

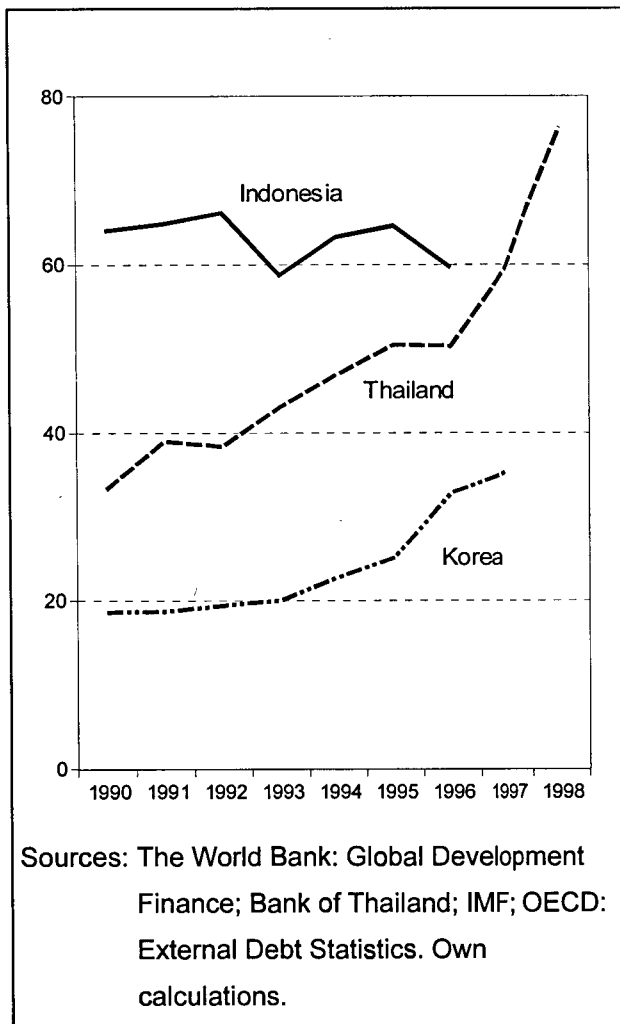
However, their high-risk behaviour was not fully sanctioned. With the IMFs swift assurance of lending commitments — financial aid commitments to the Asian countries of more than 100 billion US \$ within a matter of weeks — it provided clear incentives for international financial intermediaries to continue high-risk lending. Here, the IMF acted as an insurance fund for private financial market risks, financed by the international community. The aim of these substantial IMF transactions was twofold: first, to ensure that financial markets in Asia continued to function despite the crisis, and second, to protect creditors. It is therefore no coincidence that during the crisis, an additional quid pro quo for the willingness of the international organisation to bail out the countries had to accept the IMF conditionality. It should be noted in this context that it was

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<sup>11</sup> Corsetti; Pesenti, Roubini (1998).

Figure 10

Foreign-Debt-to-output Ratios  
as a percentage of GDP



the IMF that had recommended and supported a fixed nominal anchor for countries facing the problems associated with "catching-up development" as the central instrument of stability policy.<sup>12</sup> This strategy has been shown to be susceptible to crisis.

While the IMF was starting a financial support program, the demand was being raised for the creation of an internationally operating monitoring institution for financial markets and intermediaries. Some came to the conclusion, that the IMF itself should be instituted as the supreme regulatory body for financial transactions. Such a change in the responsibilities of this international financial organisation would have required a full reconstruction of the IMF. Not only the redefinition of the IMF-responsibilities but also capital-flow-controls and the role of the so-called TOBIN-tax were discussed.<sup>13</sup>

If the Asian countries want to return to a long term growth path, however, they must restructure their institutional framework not only in the financial sphere but also in wage-determination mechanisms, if adjustment crises are to be

avoided in the future. Also they have to redefine private and state responsibilities in social security. This is also revealed by the most recent developments on the foreign exchange markets: the dramatic devaluation of the yen last year confronted the exchange rate policy of the Asian countries with new difficulties, just as the fall in the external value of the Japanese currency called into question the improvement in the international competitiveness of those countries hit by crisis on which hopes of recovery had been pinned. Currency trends are still not under control, particularly in Indonesia. On the other hand, the depreciation of the Korean won against the US dollar appears to have come to an end. Indeed, Thailand's currency has appreciated significantly. It seems that the speculative overshooting has now been corrected, at least in the case of Thailand. The currency policy of both of these countries is likely to seek to re-establish an exchange rate peg, albeit on the basis of the now-prevailing exchange rates, despite the susceptibility of this strategy to crisis.

While after the onset of the crisis private intermediaries continued to lend to various Asian banks and companies and a newly-initiated appreciation process took place in all these countries, the pressure on the institutional structures of the domestic decision-making process grew. Now domestic capital has to be allocated along efficiency criteria more than before. Additionally, new state and corporate bonds denominated in dollars could be placed on the International financial market. At the same time, interest rates on the domestic financial market went down. How long the companies can continue to raise funds depends on the progress of the restructuring process. In these countries, the restructuring of firms and the consolidation of the banking sector have to be a part of overall transformation to a western, market-oriented economic model. When adapting a strategy of development based on foreign investment the importing of appropriate institutional settings is unavoidable. The countries implicitly decided for the adaptation of such a structure — which is far from their social and cultural tradition — by financing the economic development with international capital. This means that those companies which were previously responsible not only for production and employment but also for social support of the employed and their families find themselves increasingly in the situation that they have outsourced their social responsibilities.

For the Asian countries, the danger of crisis will remain as long as the combination of a fixed exchange rate and wage inflation on the one hand and a lagging institutional framework on the other will coexist. Any attempt at reform is doomed to failure unless an exchange rate strategy and an institutional framework is selected that is appropriate to macroeconomic and institutional convergence between Asia and the USA.

<sup>12</sup> IMF (a).

<sup>13</sup> Tobin (1978). Franke (1996).

However, there is a need for realism on this point. If such targets cannot be implemented in practice given differences on labour markets issues that are clearly structural in nature, then the exchange rate mechanism must be selected in such a way that it allows for this divergence. In other words, continuous nominal devaluations are then unavoidable. In order to avoid imposing an incalculable depreciation risk on the capital markets so that financial investment is subjected to a substantial risk premium, a crawling-peg approach, based on pre-announced, credible and repeated devaluations would appear to be the best way to avoid deterring foreign capital. What is vital is that the announced devaluations match the expected inflation differentials vis-a-vis the anchor-currency country. If this is not the case, as happened in Indonesia, repeated exchange rate adjustments must be expected. Even ex post revisions are problematic, as this involves failing to meet the self-imposed expectations at least once: this, in turn, reduces the credibility of subsequent announcements. In any case, what is certainly required is structural reform of the financial sector. Regulatory provisions in all the coun-

tries affected must be brought into line with international standards, so that in the future, negative developments on the capital market can be sanctioned by an appropriate risk evaluation. Some progress has already been made in this direction.

Recent developments on the Asian foreign-currency markets show that the currency crises and their repercussions are almost certainly far from over. On the contrary, the exchange rate movements of the yen have dealt a blow to the crisis-hit countries in their attempts to stabilise economic development. The measures adopted to this end, usually at the behest of the IMF, are insufficient. Indeed, the recommendation that countries impose a combination of restrictive monetary and fiscal policies raises the threat of a destabilisation of the domestic economy. The restrictive stance has already left indelible marks on economic development in the affected countries, and an explosive increase in unemployment seems likely. This is particularly worrying in the Asian countries, given their lack of social security systems.

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## Zusammenfassung

### **Asienkrise: Vom Scheitern fester Wechselkurssysteme bei verzögertem Strukturwandel**

*Hohe Wachstumsraten und beachtliche Kapitalzuflüsse prägten über einen langen Zeitraum die Entwicklung in vielen Südostasiatischen Staaten. 1997 wurden die bis dahin als erfolgreich geltenden Volkswirtschaften 1997 mit tiefgreifenden Währungskrisen konfrontiert. Im Vorfeld der Krise ließen weder die heimischen Inflationsraten noch die Entwicklung der Staatsverschuldung eine derart dramatische Verschlechterung der gesamtwirtschaftlichen Situation wahrscheinlich erscheinen. Vielmehr scheint es, daß die Konzentration auf diese spezifischen Krisenindikatoren den Blick für die Krisenstruktur in den hier betrachteten Volkswirtschaften, Thailand, Indonesien und Korea verstellt hat. Bislang kann die Krise keineswegs als überwunden gelten. Die Krisenanfälligkeit wird vielmehr so lange weiter bestehen, wie an der Kombination von nahezu fixem Wechselkurs bei Lohninflation sowie institutionellen Rahmenbedingungen, die hohe Lohnsteigerungen und eine nicht an Effizienzkriterien orientierte Kreditvergabe zulassen, festgehalten wird. Bei einem nahezu fixen Wechselkurs ist daher jeder Reformansatz zum Scheitern verurteilt, der nicht eine angemessene makroökonomische und institutionelle Konvergenz zwischen den betroffenen asiatischen Volkswirtschaften und dem Anker-Währungsland USA einleitet.*