

Building Up Our Resistance to Financial Crises: How Capital Controls and Prudential Banking and Supervision Can Help Emerging Markets

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The Asian crisis, currently on global tour, has given everyone a reason to reconsider their positions on capital control and prudential banking and supervision. Once an incentive for attracting foreign investments, hassle-free capital inflows and outflows and weak banking supervision and regulation have proven to be a mistake. Capital flows, prone to reversals, distort the prices of foreign currency and wreak havoc on financial and non-financial institutions strapped with dollar-denominated loans. Banking institutions, which on a daily basis deal with the risks of liquidity and unstable exchange rates, can hold the economy hostage. It is vital that they undergo strict supervision and regulation to determine if they are capable of handling the risks they are taking. However, the existing bias leans towards accepting capital inflows without control and preventing a crisis by paying closer attention to financial intermediaries. The author insists that they go hand in hand. To avoid another global crisis, both prudential supervision and regulation and capital controls, the extent of which is determined by a country's culture, institutions and bureaucracy, and development model, must be taken seriously. Asia is learning this the hard way.

Although the financial contagion emanating from the Asian crisis has yet to be contained and fully understood, the menu of preventive measures against another emergency has become less ambiguous. Since the crisis unfolded, two approaches in general have reached greater prominence: capital controls and prudential regulation.

Neither one is new to us. Prior to the crisis, prudential regulation had long been recognized as a crucial ingredient in opening up capital markets. Even in mature economies like the United States, there had been moves towards a more competent banking supervision and regulation program after several domestic banking problems threatened to destabilize the economy. A significant development in the 1990s was the firming up of the Basle Accord¹ among advanced countries and the planned inclusion of emerging markets in the accord. Even some microeconomic roots of the crisis such as moral hazard, information asymmetry, and principal-agent problems are old economic phenomena that have long been recognized by regulators.

Further, the neoclassical perspective had accepted the regulation of speculative inflows as a crucial element in the liberalization process. The Mexican crisis, which had contagion effects to a lesser degree, was started by the reversal of capital inflows, raising legitimate fears among policymakers in the early 1990s that capital inflow must be “managed.” In fact, the change of tone is remarkable. While the 1980s was replete with models of capital flight and ways to attract foreign investment, the 1990s saw the emergence of studies on policy tools to tame capital inflows.

But if capital controls and prudential regulation were already known before, why then were they not done? Perhaps, the authorities thought the capital inflows and weak supervision and regulation would not affect the global economy in a major way. Perhaps, they thought economic reforms could not gain momentum so long as there was no crisis. The fact is, the heady growth, especially in the East Asian region made the international and national authorities overconfident. In any case, the current crisis, now threatening the whole world, has taught us that full capital convertibility with weak banking supervision and regulation is a grave mistake.

Managing Capital Inflows

Push and pull factors account for the massive capital inflows to emerging markets. Push factors refer to external developments that may have caused capital to flow to the host country. The decline of interest rates in mature economies (combined with high interest rate regimes in developing countries), for example, is considered to be the biggest factor that led to strong capital inflow in emerging markets. In the Philippines, prior to the crisis, interest rate differentials (between Philippine and U.S.

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treasury bills), although declining before the crisis exploded, were still as high as seven percent. Technological improvements made it possible for capital to flow swiftly across borders, making emerging markets more attractive to investors trying to diversify their portfolio.

Pull factors refer to developments within the domestic economy that have attracted capital. Capital markets liberalization and the institution of fiscal and monetary reforms are some events that attracted capital inflows. In the Philippines, the implicit guarantee of a fixed exchange rate was an incentive to foreign investments, especially those of a short-term nature.

Capital inflows, in particular portfolio flows, are troublesome to economies because, first, they force authorities to choose between controlling the exchange rate or controlling money supply. The Mundell-Fleming theory has shown that when authorities choose to keep the exchange rate level, they lose control of monetary policy. If they want to keep monetary policy as one of their tools, they will have to allow the exchange rate to fluctuate.

Thus, in dealing with this problem of capital inflows, the conventional approach is either to allow the exchange rate to appreciate or defend the rate but sterilize the flows. The former is seldom acceptable especially in countries with export-oriented strategies. The latter, on the other hand, is costly and unsustainable (Goldstein, 1996). Sterilization also raises the interest rate, inducing more capital inflow. Countries usually use a combination of both, widening the band where the exchange rate can fluctuate and sterilizing on the side. To assist in the sterilization, fiscal austerity is also done to control aggregate demand.

More than troublesome, capital flows are deadly because they are prone to reversals. Since there is still very little consensus on what causes such reversals, it is difficult to find solutions to avoid them. The recent Asian crisis has shown that economic fundamentals alone cannot explain the sudden outflow of capital. According to the most recent International Monetary Fund study on capital markets (Adams, et al., 1998), the economic fundamentals of Thailand, Malaysia, Indonesia, and the Philippines in 1996 were comparable or even better than the group's average in 1995. This has resulted in the view that irrational behavior may have played a role. Herding due to the fact that investment decisions are

not made by those who own the capital is another consideration. One cannot, however, ignore the fact that even if, in general, economic fundamentals were not so bad, vulnerabilities in one or two indicators may have led to a change in market sentiment. In any case, reversals distort the prices of foreign currency, creating a backlash on financial as well as non-financial institutions with unhedged dollar-denominated loans.

In the absence of reliable solutions to avoid reversals when massive foreign capital has already entered the host country, countries are compelled to limit the entry of capital and to regulate the composition towards long-term flows. Barriers to capital inflow will lower the amount of capital, minimizing the effects of capital flight should they occur. Moreover, by formulating a mechanism where only long-term flows are encouraged, countries can enjoy the benefits of capital inflow without overwhelming costs. Not only does this keep the possibility of reversals to a minimum, it might even lower the pressure on monetary authorities to sterilize the flows in order to keep the exchange rate from appreciating.

But despite the apparent benefits, capital controls have never been popular. Prior to the crisis, this option was not seriously considered because it ran against the dominant thinking that controls should be a thing of the past. The experience in the 1970s — where credit allocation was directed by the government, interest rates were controlled, and foreign financing was tightly constrained — was enough to convince policy-makers that the government was a poor substitute for the market. This began a trend towards more market-oriented policies, including full capital convertibility for many emerging markets. With hard-earned reforms already in place, capital controls were feared because they would be considered as an abandonment of market-oriented commitments, sending conflicting signals to long-term investors. Furthermore, many doubted the capability of developing countries to have the institutions and bureaucracy that would implement controls effectively.

Table 1: Menu of Policy Responses to the Crisis

1. Intervention in the exchange market
 - Trade liberalization
 - Capital account liberalization
 - “Virtual” intervention (e.g. information signals)
2. Influence level and composition of aggregate demand
 - Reduction of government’s budget deficit
 - Regulation of banks (e.g. restriction of consumer credit)
 - Changing the banks’ reserve requirements
 - Sterilized market intervention
 - Sterilization through shifting of government funds
 - Re-evaluation of domestic currency
 - Increased variation in the exchange rate
3. Intervention to control the level and composition of capital flows
 - Taxing short-term flows
 - Tax on stock transactions of foreigners (e.g. Brazil), capital gains tax on sale of stocks to discourage speculation
 - Limiting foreign exchange liabilities of private banks (e.g. Mexico)
 - Currency controls (e.g. Malaysia)
4. Other types of global intervention: greater resources for countries hit by volatility, better monitoring and surveillance, restraining capital liberalization

However, with the failure of traditional tools like sterilization, tightening fiscal policy, and exchange rate appreciation and with the prevalence of currency crises in the 1990s, more and more policy-makers are becoming open to some form of capital control. The success of some countries like Chile has also softened the stance against controls. (See Table 2.)

Table 2. Chile's Capital Controls

June 1991	The central bank introduced a non-interest-bearing reserve requirement of 20% on all new credits from abroad (excluding trade credits) and increased commissions on swap operations
July 1991	Reserve requirement extended to all outstanding external credits (rescheduled, government-guaranteed bank loans, exempted); implemented over a six-month period
January 1992	Reserve requirement extended to cover foreign loans to foreign currency denominated deposits held by commercial banks
May 1992	Government broadened the base of the 20% reserve requirement on foreign currency bank deposits and loans by introducing a marginal reserve requirement on interbank deposits of 30%; it also raised the reserve requirement on new credits to 30%. To encourage borrowing with longer maturities, the requirement was designed to make the tax fall as the maturity of the foreign loan increased.

Source: Schadler (1993)

Capital Controls: Theory and Practice

The idea of capital controls, in the context of limiting volatile short-term capital flows, is attributed to James Tobin (1978). Hence, taxes on capital flows became known as Tobin taxes. According to Tobin, there must be:

“...an internationally uniform tax on all spot conversions of one currency into another, proportional to the size of the transaction. The tax would particularly deter short-term financial round trip excursions into another currency...Moreover, it is desirable to obstruct as little as possible international movements of capital responsive to long-run portfolio preferences and profit opportunities.” (c.f. Tornell, 1990)

Dornbusch (1986) also called for the “adoption of measures such as dual exchange rate systems, which are able to shield, at least partially, the real economy from the vagaries of short-term financial market behavior” (c.f. Grilli and Milesi-Ferretti, 1995).

More recently, Tornell (1990) created a model that justifies the Tobin tax as the most efficient second-best solution to an existing market failure. Tornell was puzzled as to why real capital investment had been minimal in Latin American countries, despite episodes of large capital inflows. Taking off from the common argument of businessmen in Latin America, he assumed that “real investment does not occur because real capital is irreversible, while financial capital is reversible, in the sense of being more certainly realizable at short notice.” When there exists uncertainty in the domestic economy, investors would rather wait and see. If the negative rumor turns out to be correct, investors in real capital will regret this since they cannot immediately pull out their investment. In contrast, a positive development will not impose a loss on the cautious investors because they can always turn their financial capital into real capital anytime.

Irreversibility, a characteristic that is not shared by financial capital, creates a distortion, the “option to wait.” Investors can wait for the realization of uncertainty before deciding whether to invest in real capital or not. This keeps the marginal return on real capital greater than the domestic interest rate. Tornell shows that a tax that is contingent on the expectations of the future will reduce the variance of the domestic interest rate (the uncertainty in the model). When expectations are bullish or when investors are confident of real investment, taxes should be reduced since interest rates will start falling. When expectations are bearish, taxes should be increased to prevent outflows that will further raise interest rates. The result should be a steadier interest rate that will rid the economy of uncertainty. This way, Tobin taxes will improve the allocation of resources. However, Tornell notes that this is only second-

best. "The first best policy is the creation of an insurance scheme that would allow real capital to be reversible de facto." (Tornell, 1990)

Empirical evidence of capital flows is ambiguous due to the difficulty in directly testing them. Cardoso and Goldfajn (1998) give a brief survey of the empirical evidence of capital flows and conclude that capital controls can serve to discourage potentially destabilizing short-term capital flows and reduce a country's vulnerability to shifts in market sentiment. However, capital controls seem ineffective in preventing sustained outflows of savings or avoiding a crisis induced by inconsistent macroeconomic policies. Moreover, enforcing capital controls over extended periods becomes more and more difficult as investors create new instruments to evade the tax.

Dooley (1995) finds that there is no evidence that controls have helped governments achieve policy objectives, such as avoiding real appreciation, or that controls have enhanced welfare as suggested by theory. Econometric analysis done by Grilli and Milesi-Ferretti (1995) reveals that "capital controls, current account restrictions, and multiple currency practices are in general associated with higher rates of inflation and lower real interest rates."

Valdes-Prieto and Soto (1996) questions Chile's touted success. They find that while capital controls were not evaded in Chile, they failed to delay real exchange rate appreciations or improve the composition of the flows between long- and short-term credits. Moreover, they show that evasion has not totally been removed as market participants search for newer tax-free instruments. The beneficiaries are largely those who have access to substitutes while those who do not bear the burden of the tax.

On the other hand, Cardenas and Barrerra (1997) discover that although controls in Colombia did not reduce the level of capital inflows, they were able to induce a mix of foreign liabilities in favor of long-term maturities. The positive results may be due to the more recent adoption of controls by Colombia. Chile started its capital control program in 1991; Colombia followed only in 1993. The same results were obtained by Reinhart and Smith (1996). While capital controls did not affect consumption, the capital account or the real exchange rate, they were able to reduce the overall volume of inflows, and in some cases, alter the maturity profile in the short run.

In the wake of the Mexican crisis, a review of evidence by the International Monetary Fund (1995) reached two main conclusions. First, capital controls are successful in reducing inflows only in the short run. In the long run, such policies become harmful and less effective. Second, they may also be successful in influencing the composition of inflow between short-term and long-term maturities. (c.f. Adams, et al., 1998)

The mixed results may be due to the ambiguity of the data. Chilean data show that the percentage of short-term debt to total external debt fell from nearly 25% in early 1991 to 11% in 1997. Meanwhile, data from the Bank of International Settlements which may include short-term loans not captured by Chilean sources like loans issued by Chilean affiliates of foreign banks and import credits report a figure of 49.8% (Adams, et al., 1998). Quirk and Evans (1995) have also observed a sharp increase in “net errors and omissions” together with the drop in short-term private capital inflows, implying that some flows are not recognized by the usual procedures.

Despite the mixed results, the evidence seems to be that capital controls can be successful in reducing the inflow of short-term credit. This is a very significant finding because, given the scarcity of approaches in controlling the volatility of portfolio flows, countries are assured that they are not completely powerless against global capital. But such controls must be done with caution. Evidence has also shown that capital controls cannot prevent the appreciation of the domestic currency. This means that countries will still have to rely on traditional tools to balance their exchange rate and monetary objectives. Still, the possibility that without capital controls the appreciation may have been bigger should also be recognized. Countries must also remember that capital controls are effective only in the short-run or as long as authorities can correctly distinguish the instruments of short-term flows without affecting the long-term flows. Moreover, non-economic aspects like culture, institutions, and development models may have to be considered in determining the aptness of the regulatory policy in a particular country.

Tax competition was one source of anxiety with capital controls. There were fears that capital would flow to countries with lower or zero taxes in portfolio flows. However, this was practically what happened prior to the crisis. Since everybody wanted to bring in capital, they did not

impose any restrictions to capital. However, now that the crisis has happened, only the foolhardy would try to compete with the supply of short-term flows. As for foreign direct investment, there is very little evidence that capital controls would frighten all the capital away. As mentioned above, these controls were not even successful in preventing a currency appreciation. This means that foreign direct investments were still being attracted into the country. As long as the authorities send the correct signal that they are not backing out of other market-oriented reforms, there is no reason to fear that capital controls will frighten useful capital away.

The *Exchange Arrangements and Exchange Restrictions Annual Report of 1997* states that in the Philippines, there are hardly any capital restrictions save for registration requirements and a provision that foreign currency used for servicing must not be purchased from the domestic banking system. This is also true for HongKong, Singapore, Korea and, to some extent, Thailand. Indonesia requires approval for foreign borrowing by commercial banks and other credit institutions. There are also limits to borrowing with maturities of no more than two years of 30%. However, banks are permitted to lend locally in foreign exchange.

The Bangko Sentral ng Pilipinas has claimed that the implementation of registration requirements on foreign currency loans were quite stringent and past approvals were usually given to export- or investment-related projects. What is difficult to monitor are lending from foreign currency deposit units. Yet, if the fungibility of money is seriously considered, the prevalence of unhedged private sector loans is not at all surprising.

Recently, Malaysia has adopted more radical changes in the form of currency controls. Currency controls are more stringent than capital controls because they affect both the current and capital account of the balance of payment. As temporary measures, they allow beleaguered countries to rev up the economy through low interest rates without risking a further slide of the domestic currency. Compared to capital controls, they are more difficult to administer. The experience of the Philippines with foreign exchange controls is distressing. Not only did it encourage under- and over-invoicing of export and import receipts, respectively, it also led to rent-seeking behavior among importers whose products needed to be in the priorities list of the government for them to avail of

precious dollars. Despite its complexity, the program failed to get rid of the balance of payment deficits.

In the Philippines, proposals on a specific capital control vary. The Chilean model requiring reserves of up to 30% for all portfolio inflow that stay in the country for less than a year is a prominent proposition. However, as De Dios (1998) pointed out, these measures may be insufficient for the Philippines since a large fraction of the inflows in the crisis are foreign private borrowing. Fabella (1998) also noted that controls for foreign inflows alone are ineffective against locally financed asset bubbles. Instead, he proposed a time-graduated capital gains tax on stocks. All gains in excess of the 91-day treasury bill are taxed depending on the duration that the stock was held. A duration of less than a year is taxed 100%. Another option is a conversion tax applied at the point of conversion of pesos to foreign currency (Sta. Ana, 1998). However, this requires substantial institutional competence to recognize the transactions that need to be taxed (e.g. foreign borrowing, short-term portfolio inflow).

Bank Supervision and Regulation

Banks normally face risks. They deal with liquidity risk when their short-term borrowings (i.e. deposits) are tied up in medium- to long-term loans. They deal with interest rate risk when rising interest rates increase their non-performing loans. They deal with exchange rate risk when they undertake substantial unhedged foreign borrowing. Facing these requires them to identify and set the price of risk properly. In a perfect market setting, banks should be capable of doing this. In reality, though, there is no such thing as a perfect market.

Moral hazard² is widespread with banks. When banks are a major source of financial intermediation in the economy, the financial sector can hold the economy hostage. Hence, the government has a strong incentive to maintain the public's confidence in the banking sector. When this confidence is lost, bank runs can destroy even the strongest of banks, affecting the real sector of the economy. However, when government gives explicit or implicit guarantees, they induce banks to undertake a higher amount of risk than they would normally handle. This ultimately leads to failures.

Krugman (1998) presents a model where moral hazard is present to explain what happened in Asia. According to Krugman, moral hazard induced financial intermediaries to think that the outcome of their investment will always be the best of all possible worlds. This Panglossian view increases their demand for certain assets like real estate. Since the supply of the asset is fixed, higher demand inflates the price. But when the market expectation is not met, the government will bail out some financial intermediaries. Since government cannot be expected to rescue all failing institutions, there is a perception that future creditors may not be able to receive help. There is a loss of confidence that will lead to a drop in the prices of assets and to further bankruptcies.

Aside from moral hazard, other implicit guarantees can also lead to similar mispricing of risk. The guarantee of a stable exchange rate allow banks to eliminate the exchange rate risk and view dollar-denominated loans to be cheaper than they should be. However, when authorities can no longer defend the exchange rate, the exchange rate risk rises. By that time, banks would find themselves with more debts than are manageable.

Incomplete information adds to the difficulty of risk management. Due to moral hazard, depositors do not seek information about their banks and find out if their managers are following prudent practices (or are lending only to themselves). Financial intermediaries can also make mistakes in their lending operations because they do not know their borrowers.

Hence, it is an important objective of supervision and regulation to ensure that, in spite of such market failures, financial intermediaries can manage the risk they undertake. These include ensuring that capital requirements are enough to absorb losses, owners have a stake in the safe operation of the bank, and liquidity, at all times, is at a dependable level. Capital requirements must also be risk-based. The more the financial intermediary is involved in risky operations, the higher the capital requirement. Due to the market failures mentioned earlier, limits to some financial operations (e.g. unhedged foreign borrowing) must also be in place.

Unfortunately, in most developing countries, supervision and regulation are still very weak. They lack technical skill, power and autonomy to undertake their tasks credibly. In the Philippines, it is said that low

remuneration has led to regulators transferring to the very sector which they are supposed to be regulating, divulging sensitive information. Likewise, they fail to build up their capacity to ensure that they are always on their toes with respect to new instruments and operations that try to subvert their rules.

This deficiency has become more pronounced in recent years. Capital markets liberalization has allowed non-financial institutions to undertake financial activities. This should have alerted regulatory authorities that their supervisory domain had widened. Unfortunately, our laws have yet to adjust to our fast-changing world. For one, institutions regulated under different bodies should now be regulated by one body.

The power of supervision and regulation is also feeble. The old Bank Secrecy Act has been retained due to fears that it will be used by kidnapers and dictators although there is no evidence that it has aided in reducing kidnap incidents or preventing political repression. While the Bangko Sentral has gained independence from the national government, it remains closely allied to the regulated. This has led to some disastrous macroeconomic policies. For example, the futile defense of the peso against pressures to devalue is actually an effort by the Bangko Sentral ng Pilipinas (BSP) to protect the financial standing of banks, including the reckless ones.

To address these, calls to separate the supervisory and regulatory functions into two different institutions must be supported. Supervisors can scrutinize a bank fairly, distancing themselves from monetary policy. Supervisors need not concern themselves with money supply objectives, enabling them to fulfill their task as the lender of last resort. Regulators (or the current Monetary Board) can be held accountable for decisions regarding the findings of the supervisors and for monetary policy.

Capital Controls or Banking Supervision and Regulation?

While it is easy to convince leaders that regulation and supervision have to be improved, the same is not true for capital controls. Despite the recognition that capital controls may be effective to a certain degree, conservative policy-makers are still disinclined to adopt the idea. The bias leans towards accepting capital inflows without controls and preventing the crisis in a reversal situation by strengthening the country's financial

intermediaries through prudential supervision and regulation. In its January 1998 issue, *The Economist* said that “those who think capital controls alone can avoid a repeat of the East Asian crisis, however, are offering a dubious remedy. It is far more important for countries to strengthen their domestic financial system, so that they can enjoy the benefit a free flow of capital brings without falling victim to the costs.”

However, the regulation of institutions (financial and non-financial) engaged in foreign borrowing may not necessarily be so different from capital controls. Capital controls without sound regulation are useless while regulation without capital controls is inadequate. Even the IMF concedes that “the combination of a weak banking system and an open capital account is ‘an accident waiting to happen’.” (Adams, et al., 1998)

Despite the controls, capital inflows at a diminished rate are still expected to enter, demanding better regulation to ensure that they do not flow to a single sector or to sectors whose boom bust performance are closely linked. Although attention has been drawn to the Chilean reserve requirement, some studies (Edwards, 1998) find that Chile’s stability may be due to its much-improved banking regulations via a reform in 1986. Likewise, the Philippine experience on the Monte de Piedad shows that some bank failures are not necessarily due to exposure to unhedged dollar-denominated loans but can in fact be caused by simple fund mismanagement.

On the other hand, improving regulation alone cannot be expected to insulate the economy from shocks. For one, the strengthening of institutions and rules cannot happen overnight. Most emerging economies have yet to reach the standards set by the Bank of International Settlement’s Basle Accord. In the meantime, capital controls can prevent a crisis in the making while authorities adopt the necessary legislative and executive measures needed for a developed country’s supervisory and regulatory institution to meet international standards. The Philippines, for instance, has to amend an old law that prevents regulators from examining the accounts of banks’ big depositors.

Aside from buying time for necessary reforms, capital controls can be a potent regulatory tool. When banks, subject to moral hazard, take more than the optimal level of credit and exchange rate risk, a mandatory reserve requirement on foreign borrowing can impose the necessary cost

for a more efficient result. In short, capital control and prudential supervision and regulation go hand in hand.

The global financial crisis has taught countries several lessons on economic policy. While it has underlined what conservatives have been advocating all along, it has also made certain unpopular policies more acceptable. To avoid another global crisis, both prudential supervision and regulation and capital controls deserve to be taken seriously. The exact regulation and control apt for each emerging country's culture, institutions, bureaucracy, and development model, however, must be further studied. ❁

Endnotes

- 1 The Basle Committee has developed the Core Principles for Effective Banking Supervision which are intended to serve as a basic reference and minimum standard for supervisory and other public authorities.
- 2 The moral hazard problem is that banks assured by guarantees will not take the appropriate level of care.

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APPENDIX: CAPITAL RESTRICTIONS IN THE PHILIPPINES (1997)

Non-residents purchase of capital market securities, money market instruments and collective investment securities	There are no restrictions except if the source of foreign exchange needed for capital repatriation and remittance of dividends, profits and earnings is purchased from the banking system. In which case, registration with BSP is required.
Commercial and financial credits to residents from nonresidents	BSP approval is needed for guaranteed, short-term trade-related loans contracted by nonbank residents. Registration is also required if debt servicing uses foreign exchange from the banking system.
Non-residents' purchase of real estate	There are no restrictions as long as it is limited to 40% equity.
Commercial banks' borrowing abroad	Banks authorized under the expanded foreign currency deposit system may do so subject to existing rule on foreign borrowings.
Commercial banks' local lending in foreign exchange	The following foreign currency loans do not need BSP approval: 1. private sector loans serviced with foreign exchange obtained outside the banking system, 2. short-term loans to financial institutions for normal interbank transactions, and 3. short-term loans to commodity and service exporters, producers/manufacturers, provided that the loan proceeds are used to finance the import costs of goods and services necessary for the production of goods.
Open foreign exchange position limits	Full coverage of foreign currency liabilities. For foreign currency deposit units, at least 70% of the cover must be maintained in the same currency of the liability and up to 30% in other acceptable foreign currencies. Long and short foreign exchange positions of banks must not exceed 20% and 10%, respectively, of their total unimpaired capital.