

CHAPTER 4

TRADE, FINANCE AND CRISIS

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CHAPTER 4

TRADE, FINANCE AND CRISIS

4.1: INTRODUCTION

A well developed and stable financial sector and an open international trading system are the two key components of economic prosperity. Finance and trade are linked in a number of ways that are not always obvious. Trade or openness cannot flourish without a stable financial system and also the financial stability fall under threat if the trading system does not function well. Trade openness and financial sector development are good for growth. The financial sector helps to cover a number of risks for traders like commercial risk, transportation risk, political risk, exchange risk etc.

Financial crises are the most important causes for disruption in international trade. In such cases trade related financing may become very expensive and economic disruptions depress demand for traded goods and services. Financial stability is unlikely to prevail without trade.

Here we explain the links between international trade and the financial sector. It argues that modern trade depends on credit and other key financial services to finance trade-related expenditure and cover against trade-related risks. The first part describes the role of financial systems in promoting trade and growth .Next we discusses specific trade-related financial instruments, and then we consider the role of export credit agencies, including the role of governments in this area. In light of the importance of foreign exchange policies for trade here we attach the concept of capital flight to explain the role of financial stability.

Liberal trade and financial policies coupled with technological advance made international trade and financial sector development important engines of post-World War II growth Both international trade and the financial sector are important engines of growth in today's economies. The growing importance of these two sectors is highlighted by their expanding share in output over the last decades. The ratio of international trade of goods and services to global GDP has risen from about 8 per cent at the founding of the GATT in 1947 to about one quarter of global GDP at present. Growth of financial transactions has been similarly spectacular in recent decades. In the United States, the financial sector (including banks, securities, insurance and real estate) expanded from 10.9 per cent of output in 1950 to 19.4 per cent in 1997. In other industrial and developing countries, financial services (excluding real estate) typically account for between 4 and 13 per cent of GDP. Growth of international financial transactions has been even more rapid; with many types of such transactions growing three to ten-folds

over the 1990s alone (see Kono et. al., 1997 for more detail). survey, see WTO, 1998b).

The growth of international trade since World War II was much faster than the expansion of world output (WTO, 1998). This is largely due to significant declines in trade barriers and transaction costs. Tariff and non-tariff barriers to trade were reduced in the context of seven GATT negotiation rounds and as part of regional integration efforts, most importantly in Western Europe. Falling transportation and communication costs also stimulated trade expansion. Similarly, the rapid growth of the financial sector is linked to a favorable policy environment and technological advances. Increasingly liberal financial policies both at the domestic and the international level, coupled with rapid progress in telecommunications and information technology and the development of new financial instruments, allowed an enormous expansion of financial services and capital flows within and across borders either legally or illegally and this influences capital flight to a great extent. This has been discussed in the earlier chapter with case studies of son developing countries.

Regarding international trade, specialization according to comparative advantage across countries can result in significant efficiency gains. Second, specialization allows benefits from economics of scale. Third, international trade increases the choice of goods and services available. In addition to these so-called static gains from international exchange, trade also enhances competition and stimulates international skill and technology transfer which, in turn, can have positive dynamic (long-run) effects on welfare and growth. Empirical studies show significant differences in the growth performance between open and closed economies. Sachs and Warner (1995), for example, find that annual growth in open economies exceeds that of more closed countries by 2- 2.5 per cent, and other studies point in the same direction (for a survey, see WTO, 1998b).

Until only a few decades ago, our understanding of the role of the financial sector was quite limited. Today, we know that there are significant gains from specialization in the financial area as well as in trade. The ability of the financial sector to deal with asymmetric information between creditors and borrowers, where the creditor does not know the "quality" of the borrower is a key reason for its existence. Borrowers with allow likelihood of repayment (bad risks) try to hide their poor quality and are willing to pay higher interest rates than borrowers who are a good risk. This leads to so-called adverse selection, where credit applications tend to come disproportionately from "bad risks". Once a credit has been made, the chances are that the borrower does something which reduces the probability of repayment. This is called "moral hazard".

BOX 4.1: ADVERSE SELECTION

Adverse selection is the problem created by asymmetric information before the transaction takes place. Adverse selection in financial markets occurs when the potential borrowers who are the most likely to produce an undesirable (adverse) outcome – the bad credit risks - are the ones who most actively seek out a loan and are thus most likely to be selected. Because adverse selection makes it more likely that loans might be made to bad credit risks, lenders may decide not to make any loans even though there are good credit risks in the marketplace.

Suppose that you have two entrepreneurs to whom you might make a loan. One is a prudent, competent person who borrows only when an investment is likely to pay off. The other, by contrast, is a gambler. The gambler sees more investment opportunities he would like to bet money on and is, therefore, more likely to ask for a loan. Suppose, though, that you don't know the entrepreneurs well. Because of the possibility of adverse selection you might decide not to lend to either of them even though the prudent one would be a good credit risk.

Source: Mishkin,1998

BOX 4.2: MORAL HAZARD

Moral hazard is the problem created by asymmetric information after the transaction occurs. Moral hazard in financial markets is the risk (hazard) that the borrower might engage in activities that are undesirable ("immoral") from the lender's point of view because they make it less likely that the loan will be paid back. Because moral hazard lowers the probability that the loan will be repaid, lenders may decide that they would rather not make a loan. The term was originally coined by the insurance industry for the phenomenon where people, for example, become less careful with their home once they have theft or fire insurance.

The asymmetric information problem is probably larger in the developing countries than in more developed economies for two reasons: information is more difficult to obtain and instruments which are designed to protect the involved parties may not be readily available. Stock markets, corporate bond markets and credit ratings are less developed, thereby rendering the acquisition of information and the prevention of adverse selection more difficult. The provision of financial services is often severely limited by a less developed legal system, which makes contract enforcement costly and time-consuming. This limits, for example, the use of collateral to reduce moral hazard.

Source: Mishkin,1998

While an open trading and a liberal financial system generate considerable economic benefits, they are not independent of each other. International trade benefits strongly from a well developed and functioning financial environment and vice versa. We will see that international trade requires important services from financial institutions, and if these are not available, the transaction costs of trade are likely to grow strongly. In other words, finance is a "lubricant" for international trade. At the same time, trade creates demand for and promotes the development of financial services and institutions.

International trading activities are basically part of the investment process. An entrepreneur, for example, invests in products aimed for export markets in the hope of making a profit. The financial sector assists in four main ways in supporting international trade.

First, the financial sector helps bridge the period between the need of funds for production, transportation etc. and the payment for such products by the importer. In other words, the financial sector provides working capital. Banks have a most prominent role in this context, making loans to investors/traders. For this purpose they have to collect deposits. Banks are not only the bridge between savers and investors, but also broker the diverging time preferences of depositors (who often want to invest short-term) and borrowers (who often need medium- or long-term capital).

Second, the financial sector provides services which help the exporter to receive payment in the least costly and risky manner. Financial institutions secure a "smooth" money flow, which can range from simple intra-bank transfers of money between two accounts to more sophisticated financial services such as leasing or foreign exchange-related services.

Third, financial institutions provide valuable information to investors/traders. They inform their clients about present and future money and capital market conditions. They broker business contacts, do market research and check credit worthiness of

Fourth, the financial sector provides insurance against certain risks involved in the trading process. Insurance instruments involve freight and export credit insurance but also forward contracts (to insure against exchange rate changes). Certain other provisions can insure against non-compliance by the seller and risks arising from government policy changes. Without these financial instruments, international trade would be much impeded.

4.2: MANAGING RISKS OF INTERNATIONAL TRADE TRANSACTIONS

The availability and costs of trade credits is strongly affected by four types of risks: economic or commercial risk, exchange risk, transportation risk and political risk (table 4.1 & 4.2). of international trade are either much smaller or do not exist at all in domestic trade. The type of financial instrument chosen to deal with them depends on three factors:

- the perception of the type and size of the risk involved in the transaction;
- the distribution of risk and risk reduction efforts between exporters, importers and their banks;
- the costs of risk reduction.

More generally, one can probably safely say that the more well-developed and efficient a financial system, the more likely traders are to find the type of financial arrangement which covers their credit and insurance (risk reduction) needs at low cost.

TABLE 4.1: VARIOUS RISK IN INTERNATIONAL TRADE & PROTECTION OPTION

Economic risk Related to Trading partner	Exchange rate risk	Transportation risk	Political Risk		
			Foreign policy	Domestic policy	Economic policy
1. Importer is not willing or unable to pay	1. Floating ex-rates: variations in Ex-rates.	1. Damage	1. War	1. Revolt	1. Prohibition to transfer foreign exchange.
2. Importer does not accept merchandise	2. Fixed Ex-rate: risk of devaluation	2. Loss of goods	2. Embargo	2. Civil war	2. Currency declared non-convertible.
3. Exporter do not deliver on time or products agreed.			3. Restrictions.		

TABLE 4. 2: OPTION FOR PROTECTION

Economic risk Related to the trading partner	Exchange Risk	Transportation Risk	Political Risk
1. Private insurance Or public export Credit agencies. 2. Letter of credit. 3. Bank guarantees	1. Bank provide hedging facilities, Public exchange risk insurance	1. Private insurance	

Now consider various risks one –by- one:

Economic or commercial risk: Both in domestic and international trade, there is so-called economic or commercial risk. For the exporter, this risk basically involves the danger that the importer does not accept the merchandise or does not pay for it after accepting it. The importer risks that the exporter does not deliver the products at the agreed quality and time. In both cases, the capital invested in the project—be it out of companies' own funds or through a credit facility—is at risk.

Commercial risk is linked to the problem of asymmetric information, which can be significantly larger in the international context. Information about the situation of foreign companies (e.g., importers, foreign banks, economic conditions and foreign law) will be more limited or less familiar to the exporter and his bank than in respect of domestic clients. Large banks, therefore, often maintain correspondent banks or branch offices abroad which provide the needed information about foreign clients, the legal system and other potential pitfalls.

It is frequently pointed out those shortcomings in the legal system increase commercial risk if property rights, contract law, arbitration procedures and bankruptcy laws, and the courts are inadequate. In such a legal environment, international trade is hampered by traders being unable to enforce their claims, so that the costs of reducing such risks rise or even become prohibitive. A poor legal environment, just like a poor financial sector, can then be a strong impediment to international trade.

Traders can choose from among a range of instruments depending on the extent of commercial risk and the preferred time of transferring this risk from exporter to importer. There are four main instruments of trade financing, which transfer the commercial risk from the exporter to the importer at different stages of the trade transaction, i.e., open account, collection (of payment) against documents, letter

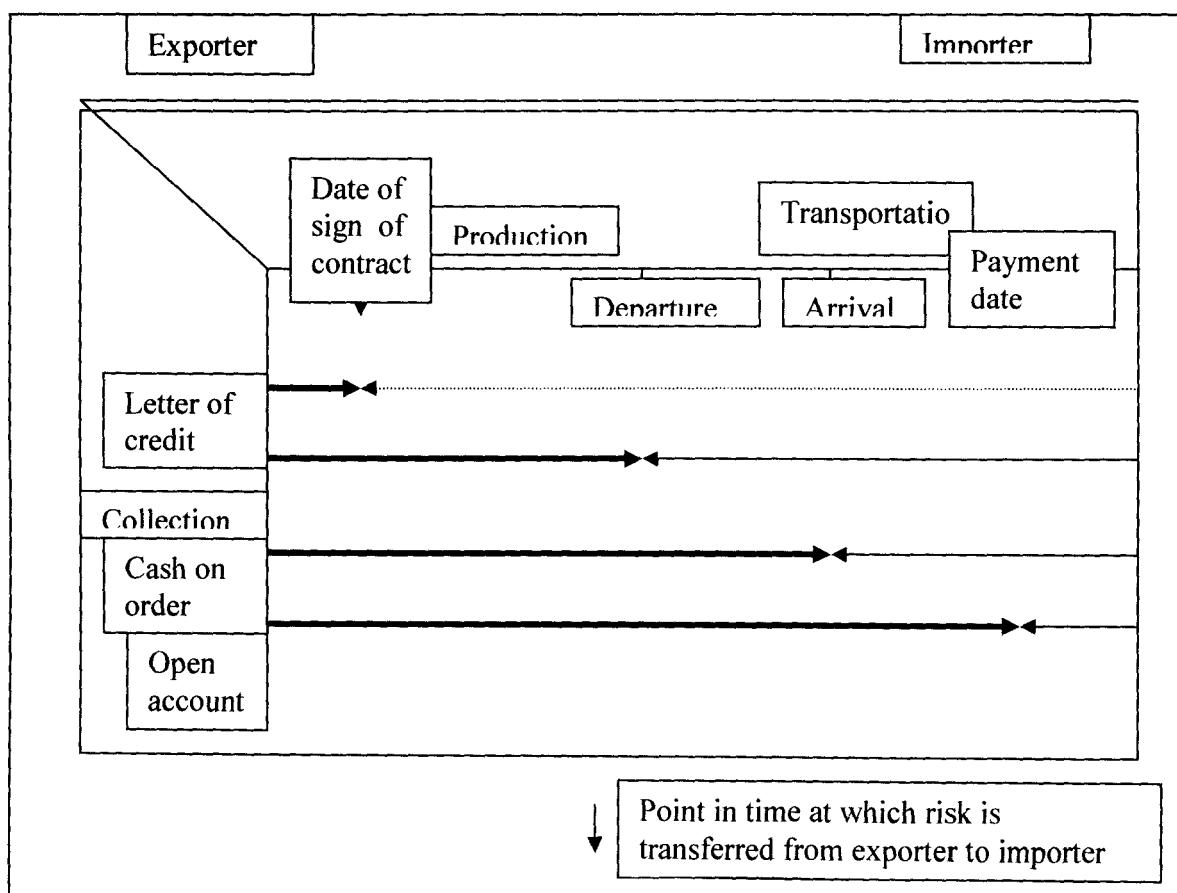
of credit, and cash upon order. The first three are most frequently used (for more detail, see ITC, 1997).

A key consideration in mitigating commercial risk is the choice of trade financing instrument. If an exporter takes on a credit to finance his trade-related activities, he can seek a guarantee or an insurance against commercial risk from a commercial or public agency (see next part for more detail). Furthermore, a number of instruments have been developed which mainly differ in the time when the commercial risk is transferred from the exporter to the importer (see Chart 3).

If the importer wants to assume the commercial risk as late as possible, he will want to make payment after delivery of the product. When this is done it is typically on an open account basis, where the buyer pays the seller through a money transfer after receipt of documents. Trade on an open-account basis will be chosen for intra-affiliate trade, or exports of a relatively small transaction value to companies with whom the exporter maintains an important longer-term business relationship. In this case, the size of transactions, the repeat nature of business and the special links between buyer and seller result in little risk.

FIG 4.1: SHIFT OF ECONOMIC RISK FROM EXPORTER TO IMPORTER

(Source: Adapted from Jung, 1998)



Exchange rate risk: both exporter and importer run the risk that between order and delivery economic circumstances may change in such a manner that the profitability of the trade deal is undermined for at least one of the parties. Exchange rate risk can produce such a change in economic circumstances, as large exchange rate changes can significantly increase or reduce the benefits from a trade transaction. An importer, for example, who orders goods for one million US dollars may benefit much less (or not at all) from the trade transaction if his home currency suddenly depreciates by 20 per cent and he has to pay 20 per cent more for the imports in terms of his own currency.

The exchange risk is affected to a large extent by the exchange rate regime. In countries with fixed exchange rates, this risk depends on the probability that the parity cannot be maintained and a depreciation or appreciation occurs. Flexible exchange rates can create considerable risk if exchange rates are very volatile. A number of instruments have been developed to hedge against exchange risk, and traders who have access to these instruments can reduce this risk at fairly low cost. In the case of a large contract, an exporter might ask his bank to sell his expected foreign exchange in the forward market. As transactions in forward markets typically start with amounts above 1 million US dollars, smaller exporters generally have to turn to the currency future markets where they can buy "put options" which are options to sell foreign exchange for a specific rate at a certain point of time in the future. The costs of such a hedging operation are a fee/premium (about 0.3 per cent depending on amount and currency) plus the price of the option (which depends on the current exchange rate, the future exchange rate specified in the option, the length of the period during which an option can be executed, relative interest rates, and the past volatility of the exchange rate). If the foreign currency has depreciated beyond the rate specified by the options, the exporter will execute his options and obtain the agreed equivalent in domestic currency. Otherwise, exporters do not exercise their options, but convert their foreign exchange in the "spot" market at the prevailing higher rate. For longer term transactions, the exporter might be able to engage in currency swaps. This is particularly interesting (and inexpensive) if the exporter expects regular foreign exchange receipts which can be swapped against domestic currency.

In some cases, the invoicing currency for trade contracts is given, as for example for oil, and traders may or may not hedge against the exchange risk involved. In other cases, the currency in which trade contracts are made can be indicative of trading partners' ability and preference to hedge against exchange risk. Allen, Carse and Fujio (1987) have shown that British exporters preferred invoicing in British pounds in the early to mid-1980s. This minimized their exchange risk, and in return they frequently accepted more flexible conditions of payment. Japanese exporters, by contrast, showed much flexibility in the invoicing currency but insisted on firm dates of payment which allowed them to hedge the exchange

risk. As a result, over 85 per cent of both countries' exports were not exposed to exchange risk.

About half of world trade was conducted in US dollars in 1992. The German Mark (16 per cent), and the Japanese Yen, Pound Sterling and French Franc (5 per cent each) were the other main invoicing currencies for world trade in that year (Hartmann, 1996). The share of trade invoicing in particular currencies may change with the establishment of the Euro. Inconvertible currencies are rarely used for trade contracts. Often, countries with such currencies also have underdeveloped financial systems with limited or no hedging possibilities. Traders from those countries are therefore at an important disadvantage to traders from countries with convertible currencies and well-developed currency markets.

Transportation risk: Traders can incur losses if the merchandise gets damaged or destroyed during the voyage from the seller to the buyer. This danger is greater in international trade where distances and travel time are often longer, ships can sink, and merchandise can get stuck in customs. Goods can spoil through heat, cold and water or they may not arrive because they are stolen or misdirected on the way. Freight insurance can prevent losses, and insurance agencies cover freight-related losses for a fraction of 1 per cent of the freight value and transportation costs, depending on the risk and destination.

Political risk: Finally, political risk can become a source of loss for the trading parties. This risk is much more limited or almost non-existent for domestic transactions. At the international level, however, wars and embargoes can prevent merchandise from reaching the buyer, or the buyer may not be able to pay in such circumstances. Similarly, revolts or civil wars may prevent the completion of a trade transaction. Political risk also refers to economic policy changes which prohibit the transfer of foreign exchange and thereby prevent an importer from paying for his purchases. Political risk is typically covered through an export credit agency.

4.3: TRADE AND FOREIGN EXCHANGE POLICY

Foreign exchange risk for international trade can arise from the devaluation or appreciation of a fixed exchange rate or the volatility of a floating regime. The price of foreign exchange, and the regime through which its price is determined are, therefore, key policy variables for traders. Furthermore, exchange policies can have important indirect effects on trade, if such policies cause or contribute to financial crisis. However, the formation of exchange rates and the choice of exchange regime are very complex and difficult issues and the following discussion may help clarify some of the trade-offs involved in the choice between various regimes.

The impact of exchange policy on trade is not limited to the price of foreign exchange. If there are foreign exchange restrictions, and foreign exchange is allocated in a manner which penalizes or prevents certain types of trade through multiple exchange rates or rationing mechanisms, trade patterns will also be affected. Sudden shifts in policy here would fall under political risk. An efficient, transparent and flexible exchange allocation mechanism can be equally if not more important for traders than getting the exchange rate "right" (Collier, 1998).

4.3.1: EXCHANGE RATE FORMATION AND VOLATILITY:

If exchange rates are not fixed, they are formed in foreign exchange markets. The current (or spot) exchange rate is determined by so-called spot transactions. Contracts for the purchase and sale of foreign exchange dated in the future determine the forward exchange rate. Most trade in foreign exchange is not in bank notes but in bank deposits. The exchange rate, like any other price, is determined by supply and demand. More demand for a currency results in appreciation; less demand causes a fall in its value or depreciation.

In the long run, exchange rate movements tend to equilibrate prices for the same tradable products across countries:

Economic theory distinguishes between factors determining the exchange rate in the long and short run. If exchange rates can move freely, the law of one price and the concept of purchasing power parity have a strong influence on exchange rates in the long run. This means that identical goods and services should cost the same in similar markets. If this is not the case, goods and services flow from the "cheap" to the "expensive" country, until prices are equilibrated either through adjustment of the price level, or the exchange rate, or both.

There are number of factors which can result in different price levels across countries so that purchasing power parity does not always prevail even in the long run. The main reason is different prices for non-traded products such as land. If the prices of non-tradables rise in one country, overall price levels start to differ even though the law of one price may still hold for tradables. However, as the price of non-tradables (e.g., rent for buildings) affects the price of tradables (e.g., through retail markups), some difference in the price of tradables across countries can persist as well. Other reasons for persistent price differences across countries can be different tax rates (including tariffs and quotas), or regulation (e.g., different safety standards).

Changes in the long run exchange rate can be induced by any measure which affects the demand and supply of currencies, for example by raising a tariff. The latter reduces demand for imports, and thereby demand for foreign currency to buy such imports. This, in turn, induces a devaluation of the foreign currency, and an appreciation of the domestic currency. It is noteworthy that the latter, even if it takes some time to come about, will erode part if not all of the

competitiveness gains from protection. In other words, an import tax is also an export tax.

Another important factor influencing long term exchange rates is inflation. If domestic prices rise more than foreign prices, domestic products become less competitive. More demand for imports follows which results in more demand for foreign currency and a depreciation of the domestic currency. This process continues typically until exchange rate changes have balanced out inflation differentials.

In the short run, interest rate differentials and expectations tend to determine exchange rates, and overshooting is possible

In the short term, however, capital market related factors are more likely to determine exchange rates, and these factors are also responsible for much exchange rate volatility. We mentioned that foreign exchange trading largely involves bank deposits. Since this is a form of capital, the expected return is a key in determining its price. Just as the law of one price suggests an equalization of prices for identical goods across borders, bank deposits will have similar returns, regardless of the currency they are denominated in, if they can move freely across borders. Economists, therefore, use a so-called asset market approach to explain short term movements in exchange rates. In essence, exchange rates in the short term are determined by asset movements which aim to equalize risk-adjusted returns across countries.

The asset market approach can explain why capital market related factors coupled with shifts in expectations about certain market variables can cause short term exchange rates to overshoot, i.e. they change more than needed for re-equilibrating exchange markets in the long term. Variables which influence expectations about exchange rates include domestic and foreign inflation, money supply and price level, but also tariff and import quotas.

The asset market approach is a useful tool for explaining short term exchange rate fluctuations and overshooting.

The asset market approach basically argues as follows: international assets must yield approximately the same return. An example may help to illustrate the interaction of interest rates and exchange rates to achieve this objective. Assume that initially both the United States and Euroland have the same real interest rate of 3 per cent and their exchange rates are in equilibrium. Suddenly, the United States engages in expansionary monetary policies by lowering interest rates to 2 per cent. As a result, assume that inflation in the US is expected to be 1 per cent higher than in Euroland for one year.

In the long term, we know that the dollar would have to depreciate by 1 per cent towards the Euro to maintain the law of one price. In the short term, however, capital flows determine the exchange rate, and the exchange rate will overshoot

(rise). After the interest rate reduction in this example, investors buy Euro deposits which pay a higher interest rate. As a result, the dollar depreciates. But it depreciates by 2 per cent instead of 1 per cent because investors will continue to buy Euro assets until they expect an appreciation of the dollar by 1 per cent. Only then is the expected return to US assets (2 per cent plus 1 per cent appreciation) equal to the return of Euro assets (3 per cent). In other words, the initial depreciation by 2 per cent (overshooting) and a subsequent appreciation by 1 per cent add up to long term depreciation of 1 per cent which re-equilibrates exchange markets.

Empirical evidence supports the relevance of the asset market approach. It has been useful, for example, in explaining part of the strong dollar appreciation in the early 1980s, when high real US interest rates drove up the demand for the dollar. The dollar appreciated (and overshot the equilibrium) until the real interest cum expected depreciation equalized expected returns across countries.

The asset market approach, however, cannot explain all exchange rate overshooting/volatility in all situations. Market imperfections resulting from information problems may exacerbate volatility, especially in underdeveloped financial markets. In those markets, investors may be unable or unwilling to buy and sell assets denominated in certain currencies especially in times of crisis, or demand very high risk premiums. Overshooting may then exceed even the amount justified by interest rate differentials.

4.3.2: THE CHOICE OF EXCHANGE RATE REGIME

There are a number of choices for exchange rate policy—from fully flexible via intermediate to fully fixed rates, but all of them involve important trade-offs.

Considering the importance of exchange rate in trade and other policy objectives, it is difficult for a country to decide on their appropriate exchange rate policy. They can choose regimes of fully fixed or freely floating rates, and there are many regimes with varying degrees of flexibility (Table 6 for a selection of options). There are also two versions of “monetary union” that countries can try to introduce: several countries can adopt a single currency in a Monetary Union of “equals”, as recently undertaken by eleven of the 15 EU members. Alternatively a (typically smaller) country can adopt another (bigger) country’s currency. This was an avenue considered by Argentina regarding the US dollar in the context of the late 1998 financial turmoil.

Exchange rates can be fully fixed as under currency boards or exchange rate pegs but they may still be allowed to fluctuate by a certain percentage around a target level. The bands (also sometimes called buffer) are “hard” constraints when the central bank has to intervene to prevent breaking the limits. Bands can also be “soft” when the central bank may intervene or not. The latter regime is best characterized as a flexible regime with target zones. The United States has probably one of the most freely floating exchange regimes, as interventions are

very rare. Hong Kong, China and Argentina, by contrast, have versions of currency boards which are the most fixed exchange regimes short of monetary union.

Before choosing an exchange regime, a country should evaluate its policy objectives. A fixed exchange regime, for example, can help achieve a predictable environment for traders. It can also promote price stability by disciplining monetary policy. However, pursuing these objectives implies that the country cannot pursue certain other policy objectives. Devaluation to boost competitiveness, for example, has to be foregone because it leads to higher import prices which, in turn, push up inflation. The following discussion looks at some of the pros and cons of fixed exchange rate regimes in more detail. It should be noted that many of the disadvantages of fixed rates are the advantages of flexible rates and vice versa, but the following discussion does not always mention this explicitly.

Fixed rates make international prices more predictable, and can contribute to macroeconomic stabilization but they mean losing policy autonomy and require sufficient international reserves

One of the most important advantages of a fixed exchange regime lies, as mentioned; in making the returns from international trade more predictable.⁹The benefits from this are greatest between countries with significant trade links. Furthermore, countries with undeveloped financial markets and lack of hedging possibilities would also be able to reduce the exchange rate risk for their exporters and importers. Finally, fixed exchange rates can contribute to macroeconomic stabilization in countries with a history of high inflation. Argentina, for example, successfully introduced a currency board to raise the credibility of announced reforms and break inflationary expectations. This argument only holds when the chosen exchange rate is approximately “right”. This is more easily said than done, given that nobody knows the “right” exchange rate. The question does not arise with flexible rates, but many observers argue that exchange rate in flexible regimes are unpredictable. Thus in the short run this increases the risk for the traders.

Fixed rates require considerable monetary and fiscal policy discipline. When lax monetary policies result in inflation which is higher than in the country to which the exchange rate is pegged, this can undermine competitiveness of domestic producers with adverse consequences for the economy. Excessive fiscal deficits combined with fixed exchange rates can result in very high real interest rates, low growth and unsustainable current account deficits. Growing debt and/or shifting investor confidence could then force devaluation.

If exchange rates are fixed between “equal” countries (where no country can set policies completely independently), some policy coordination is necessary to achieve similar inflation rates and prevent excessive fiscal deficits. In fact, the

members of the European Monetary Union are currently experiencing this pressure for increased policy coordination.

Fixed exchange rates also require sufficient international reserves. The latter are needed if, for whatever reasons, foreign exchange shortfalls need to be financed. A shortage of reserves could otherwise force the country to abandon its currency peg. Such a situation is more likely to arise if high inflation results in overvaluation, current account deficits, and expectations of devaluation. In light of growing international capital mobility and financial integration, the most important indicator of the adequacy of reserves is shifting from the traditional import coverage (i.e. reserves in months of imports) to coverage of external financial liabilities, and especially short term foreign liabilities by the central bank (Eichengreen et. al., 1998). The latter type of liability contributed significantly to the abandonment of the Thai baht's peg to the US dollar which "officially" started the Asian crisis in July 1997.

Monetary management and adjustment to external shocks becomes more difficult with fixed exchange rates, and overvaluation can raise protectionist pressures.

Fixed regimes make monetary policy management difficult when capital inflows or higher inflation elsewhere puts upward pressure on the exchange rate. The central bank may then be required to buy foreign exchange. This, in turn, increases domestic money supply and inflation if it is not sterilized (neutralized). But sterilization policies may not work very well, as such policies drive up interest rates which in turn may attract even more capital inflows. Small countries may find it particularly difficult to absorb large and erratic capital inflows.

Fixed exchange rates can hamper adjustment to internal and external shocks. Primary commodity exporters, for example, often experience a correlation between terms of trade changes, and domestic activity. If prices and wages are not sufficiently flexible and the exchange rate is fixed, strong imbalances can arise when prices and wages do not adjust downward after a terms of trade decline. If commodity prices fall and activity declines, inflexible wages result in unemployment and corporate sector difficulties, as witnessed for instance after the second oil crisis in many oil importing countries. But inflexible prices and wages can also create imbalances in industrialized countries with fixed exchange rates, because this produces inflation differentials and reduces competitiveness.

If under fixed exchange rate system currency becomes overvalued over time this may result in protectionists' pressure. In order to maintain the competitiveness of their product in domestic market requires protection under such regime.

It is mentioned that fixed exchange rate system is helpful for countries with underdeveloped financial markets and limited hedging opportunities. This reduces uncertainty. But financial market development is important for increasing exchange rate stability in countries with either fixed or flexible

exchange regimes. Fixed exchange rate countries, in particular, can experience large exchange rate fluctuations when an exchange rate peg has to be abandoned in an unordered manner and the lack of confidence and market depth lead to collapses of the exchange rate. The Indonesian experience of late 1997/early 1998 probably falls into this category. Financial sector development mitigates the drawbacks of flexible regimes, e.g., by allowing hedging operations through the emergence of new instruments. The development of broader and deeper markets is also likely to increase stability.

From this it follows that fixed exchange rates can have important advantages for traders through more predictable exchange rates. But the costs still often outweigh the benefits, if a fixed rate provokes macroeconomic imbalances and protection, and especially if countries are forced to abandon the fixed rate at some stage. A fixed peg may induce importers to forgo precautionary hedging of their exchange risk, and an unexpected devaluation may then lead to large losses (as witnessed in Asia in 1997). Abandoning an exchange rate peg can also undermine the long term credibility of governments. When governments tie their credibility to the peg and make this a matter of national pride, devaluation often precipitates the downfall of governments (Visser and Smits, 1997). Based on these arguments, recent studies have emphasized the importance of moving early enough to sufficient flexibility in countries where the pre-requisites for stable pegs are not met (see Eichengreen et. al., 1998).

4.3.3: MULTIPLE EXCHANGE RATE AND EXCHANGE ALLOCATION

Multiple exchange rates and foreign exchange rationing distort trade and invite rent seeking and corruption

Countries sometimes try to maintain fixed exchange regimes by providing foreign exchange for certain imports at a preferential rate while applying a less favorable rate to others (or not allocating any foreign exchange for certain imports). Export earnings may have to be fully or partly surrendered at an often unfavorable (below market) rate set by government. Such split exchange regimes which are typically coupled with some rationing mechanism can be introduced with the best of intentions, and in theory, they can help to promote worthwhile public policy objectives through implicit taxes or subsidies. In practice, however, such regimes have typically produced very poor results (Visser and Smits, 1997).

First, multiple exchange rates distort trade. Those transactions which face a favorable rate are likely to grow while others will shrink. In theory, such exchange regimes could serve the promotion of worthwhile policy objectives (although other policy instruments may be more suitable). In practice, multiple exchange rates invite rent-seeking and corruption as the decision on which trade receives favorable treatment is made by government officials who may be susceptible to lobbying and bribes.

A government is also unlikely to be the most suitable agent to allocate foreign currency efficiently, as this requires enormous knowledge about what trade should be encouraged or discouraged. Collier (1998) emphasizes the importance of market-based and private sector-led foreign exchange allocation for developing countries, so that trade transactions are not undermined by government intervention in foreign exchange allocation. Collier examines, in particular, the merits of moving from very controlled regimes with high surrender requirements to more liberal regimes with foreign exchange auctions, bureaux de changes and interbank markets for foreign exchange, with a view to maximizing the efficiency, transparency and flexibility of exchange allocation.

In summary, trade considerations should be one (but only one) of the determinants of foreign exchange policies. If the policy prerequisites are met and trade integration is large, countries can benefit considerably from fixed exchange regimes. Fixed rates for short-term stabilization purposes have also proven useful. However, in many countries the benefits from more flexible regimes outweigh the costs, and greater flexibility may be considered before the markets force an unorderly exit and an excessive devaluation on a country with an ill-conceived and unsustainable peg (see also Collier and Gunning, 1994; Visser and Smits, 1997; and Eichengreen et. al., 1998). Efficient exchange allocation mechanisms are also very important for a functioning trading system, and they should move towards a private sector led and market-based allocation of foreign exchange.

TABLE 4.3: MAJOR EXCHANGE RATE REGIMES AND THEIR CHARACTERISTICS

Exchange regime	Characteristics	Examples (1988)
1. Fixed exchange rate a) Currency Board b) Exchange rate peg	a) Strongest link to other currency, Money supply adjusts automatically with international reserves. b) Central bank intervenes to maintain peg, some policy discretion possible, depending on the permitted degree of fluctuation	a) Argentina, Hong Kong, China b) CFA zone in Africa, Malaysia
2. Intermediate a) Crawling Peg b) Managed Float	a) Central bank intervenes to maintain peg, Peg is adjusted following certain rule, 'hard' fluctuation band is applied b) Occasional central bank intervention, often 'soft' band or buffers.	a) Brazil b) Many developing countries
3. Free Float	Normally no foreign exchange market intervention	U.S., U.K.

4.4: INTERNATIONAL TRADE AND FINANCIAL CRISES

Crisis can create important disturbance for international trade through two channels:

First, financial crises often result in credit shortages and in the breakdown of financial relations, which makes trade-related financing more costly if not unavailable.

Second, financial crises undermine economic growth, and thereby indirectly trade, and in a large scale crisis these repercussions can be felt even at the global level.

In light of these links between trade and financial stability, we try to examine in this section what financial crises are and what causes them. We continue with a discussion of the economic and trade effects of such crises.

According to our view, that trade is part of the solution to financial crises rather than part of the cause. Trade is typically a very important element in maintaining and regaining financial stability, and liberal trade policies in the crisis countries as well as in their export markets are key to recovery.

A.PROBLEMS OF FINANCIAL CRISES:

Financial sector problem generally starts with growing non-performing loans.

Banks are the most important players in investment and trade related finance providing trade-related loans, letter of credit, etc. at the same time they are also the financial market players which are the most vulnerable to crises.

Such vulnerability is explained with an example of a 'sample bank'. The hypothetical balance sheet of such a bank is shown below.

A) BANK (healthy)		B) BANK (after Bankruptcy of client)		C) BANK (with reduced loan portfolio)	
Asset	Liabilities	Asset	Liabilities	Asset	Liabilities
100 (Loans)	10 (Capital)	95 (Loans)	5 (Capital)	62.5 (Loans)	5 (Capital)
	90 (deposits)		90 (deposit)		57.5 (deposits)

Capital asset ratio: 10% Capital asset ratio : 5.3% Capital asset ratio : 8%

Assume the bank has taken deposits of 90. These are recorded on the liability side of the balance sheet because the bank owes this money to its depositors. The bank also has capital of 10 which is a liability to its share holders. Finally, the bank has lent 100 to its clients. Loans are reported on the asset side of the balance sheet as this money is owed to the bank, and the bank can, in principle, sell the loans if it needs the money. The so-called capital-asset ratio for this bank is 10 per cent ($10/100=0.1$ or 10 per cent). If all borrowers make their interest and amortization payments regularly (and abstracting from risk-weighting and other complications), this could be considered a healthy bank because the capital-asset ratio of 10 per cent exceeds the now widely accepted minimum of 8 per cent (see BIS, 1997).

Now assume a borrower cannot repay a loan, and the bank loses 5. This can be a private borrower, but it can also be a state enterprise, etc. If the bank writes off this amount, loans decline to 95, and the capital falls to 5. This balance sheet is much less healthy: capital of 5 on loans of 95 results in a capital-asset ratio of only 5.3 per cent. To reach the minimum of 8 per cent, the bank either has to raise new capital or it has to reduce lending so that the remaining capital is adequate relative to the bank's loans. If the bank is unable to raise new capital, it has to reduce lending from 95 to 62.5 (as $5/62.5=8$ per cent). It can do this through using loan repayments to pay back depositors or through calling in loans which are due. If the losses are too great (and depending on the laws and regulations of a country) a bank may have to close down.

This example already shows the importance of sufficient capital as a contingency for problems. But even with a capital-asset ratio of 15 or 20, banks are still highly "leveraged". This means that their capital is only a small fraction of the loans they give out. The example above is also very close to the real world: it often only takes the loss of 10 per cent of all loans to wipe out a bank's capital. This makes banks much more leveraged than companies, whose capital cushion is typically much larger.

An important question to ask here is why banks lend money to "bad" borrowers in the first place. The main reason is asymmetric information between the bank and the borrower over the borrower's credit-worthiness (see Box II.1 of the previous section for more detail). As a result, banks charge everybody higher interest rates to cover for the bad credits. This, in turn, drives the "good" risks into alternative forms of financing (bond, equity, self-financing). It can lead to the seemingly paradoxical situation where rising interest rates result in less lending because only the bad risks are willing to pay such interest rates, and the banks, knowing this, are unwilling to lend at all (Stlitz and Weiss, 1980).

Non-performing loans can also arise through the activities of other financial institutions to which banks have lent money. Hedge funds have become prominent in this regard. Hedge funds are investment funds which are in many ways similar to other types of investment funds. But their fate is intertwined with

banks as they sometimes borrow 10 or more times their capital, so that a fund with US\$1 billion in capital in fact operates with US\$ 10 billion. This leverage (here by the factor 10) can result in very high losses. If the hedge fund fails, losses in excess of the fund's capital have to be absorbed by the banks which have lent them the money.[hedge funds as limited partnerships are not regulated and do not disclose their positions. This has surrounded them with an aura of secrecy and uncertainty]

In September 1998, for example, banks had to inject several billion dollars into Long Term Capital Management to prevent the failure of the fund to which they had lent large amounts of money.

Widespread banking weakness can result in crisis and cause bank panics.

If non-performing loans and other losses cause the failure of a bank, losses to depositors are often cushioned through the acquisition of the insolvent bank through a healthy bank, through implicit insurance between banks, or through official deposit insurance schemes. But if several banks get into trouble this can undermine the whole financial system. Banks may be unwilling or unable to take over their weak competitors. Insurance schemes may break down from the sheer size of the losses. Furthermore, the weakness or failure of a growing number of banks undermines confidence in the financial system as a whole. Unable to distinguish between sound and weak banks (asymmetric information again), clients may fear that a few bank's problems may just be the tip of the iceberg and may perceive their deposits everywhere as unsafe. This may cause a so-called run on banks or a "panic" as depositors try to withdraw their money regardless of the health of the bank. This is a type of "herding" behaviour at the domestic level. For depositors who do not know which bank is weak and which one is strong it is perfectly rational to withdraw their money everywhere. This is presumably what happened in Russia after the rouble peg to the dollar was abandoned in August 1998. In a panic, even a healthy bank may not be able to pay back depositors because it does not have enough cash and it cannot call in loans quickly enough (as deposits are often more short term than lending). This can broaden the crisis from a number of weak institutions to the entire financial system.

The threshold where the functioning of and confidence in the financial system is threatened by the number of troubled banks and the size of their losses is not equal for all countries. However, Caprio and Klingebiel (1996a and b) argue that this point of "financial crisis" is roughly reached when the net-worth of the banking system is eliminated.

Financial crisis can have international repercussions through trade and—more importantly—financial interdependence.

Financial crises are often intertwined with balance-of-payment crises but they are not identical. A country with a completely closed economy and financial system can experience

financial crisis but the absence of foreign exchange transactions excludes a balance-of-payment crisis. Today, both types of crisis often go hand in hand. This is partly because a financial crisis induces domestic and foreign investors to take their money out of the country. If the country does not have enough foreign reserves to cover these outflows and other obligations like debt service payments, a balance of payment crisis can arise. The withdrawal of foreign funds can put additional pressure on company and bank balance sheets as they cannot roll over old loans or receive new financing. This can exacerbate an existing crisis or it can push a weak financial system over the threshold of crisis. However, most observers agree, that capital flows alone do not cause financial crisis (Goldstein and Turner, 1996; IMF, WEO 1998; World Bank, 1998).

Furthermore, financial crises can spread across countries because of growing financial interdependence. When investors with internationally diversified portfolios take financial problems in one country as an indication that there must be problems in seemingly similar countries as well, they can create so-called contagion. The underlying cause is often the same as for domestic bank runs and capital flight: asymmetric information. Investors do not know which financial systems are healthy and indiscriminately lose confidence in countries which are perceived as similar, and withdraw their funds from all these countries. This happened in many emerging markets after the onset of the Asian crisis.

Growing financial interdependence can also contribute to contagion through another channel. Losses in one market, for example, can force investors to withdraw funds from another market for prudential reasons. If, for example, an investor lost money in Russia and his risk exposure became too high compared to his capital base, withdrawing money from another risky market (such as Brazil at that time) would most likely be the best strategy to abide by prudential norms at home. Ironically, this type of prudent behaviour re-enforced contagion across emerging markets. As a consequence, interest rates for attracting capital to these countries were at times over 10 percentage points higher than for comparable financial instruments in industrial countries.

Financial difficulties faced by companies can also have international repercussions through the trading system. Firms which fail may "export" some of their losses abroad, for example, when unpaid import bills or loans cause foreigners to lose money. This, in turn, undermines the balance sheets of companies and banks with strong exposure to such markets.

The economic and social cost of financial crises may be very high.

Evidence and experience have shown that economic and social cost of prolonged and deep crises can be enormous, only rapid measures of crises resolution can limit such costs. For this reason government intervention is often necessary to prevent protracted instability, as has been experienced, for example, by Japan in the 1990s. Government intervention, however, can be very

costly, raising fiscal deficits and public debt in the process. Larger fiscal deficits and public debt, in turn, must be financed out of tax payers' pockets.

There are two main types of costs associated with financial crisis. First, there are the costs incurred by governments to recapitalize banks, to take over bad loans and to refund depositors. These costs are often very high, and the reason for this can be illustrated quite easily. Most countries report outstanding credit volumes of 50 to 100 per cent of GDP. A financial crisis with, say, 20 per cent fully unrecoverable loans then results in losses of 10–20 per cent of GDP. Assume half of this is absorbed by the banking system itself, then the other half, or losses of 5–10 per cent of GDP have to be paid for by government. If only a small share of the banking system fails or if the economy rebounds quickly and only a small share of loans is unrecoverable, the costs can be smaller. If virtually the whole banking system is affected and other policy errors are committed, the costs can be much larger. The financial crises of Argentina and Chile in the early 1980s saw costs above 40 per cent of GDP.

Second, there are economic and social costs in the form of lost output, less trade and higher unemployment and poverty. This type of cost is hard to measure, but we will see later that the costs can be very significant. The Great Depression, for example, saw output fall by one quarter in many countries. Some of the Asian crisis countries experienced a decline in output by 5 to 15 per cent in 1998.

In summary, there is little doubt today that financial crises have become one of the most-feared economic problems. Nonperforming loans and financial sector losses are at the root of financial weakness. Asymmetric information plays a key role in the emergence of difficulties, and in their spreading to seemingly unrelated banks and countries (through panics and contagion). In the following, we will discuss the causes of non-performing loans and financial crisis in more detail.

B. THE CAUSES OF FINANCIAL CRISIS

We argued before that financial crises mostly have their roots in non-performing loans. Given numerous financial crises in all regions, why are such loans so difficult to contain? First we will look at the domestic roots of crisis before turning to the international linkages. In most countries, however, not just one but a broad array of factors has contributed to financial crisis. Given the complexity of the issues and interdependencies, we can only outline some broad features here.

DOMESTIC CAUSES OF CRISIS

Inadequate macroeconomic policies can weaken the financial system, for example, through creating boom-bust cycles.

There are three main domestic reasons for financial crises:

- I) Macroeconomic policy errors,
- II) Inadequate financial regulation and supervision, and
- III) Inappropriate government financial market interventions (see Kono, Low, Luanga, Mattoo, Oshikawa , 1997)

Poor macroeconomic management puts pressure on financial systems, for example, through creating boom-bust cycles. If a government introduces expansionary monetary policies by lowering interest rates, this permits easy financing of investment projects and consumer credit. The economy picks up, and as long as spare capacities are better utilized such policies can even be non-inflationary. Continued monetary expansion is likely to lead to economic overheating as domestic demand begins exceeding supply. Increases in asset prices such as stocks or real estate follow.

Economic overheating also triggers inflationary pressures more broadly. The government then has to raise interest rates to "cool off" the economy. Often, the correction comes too late and asset prices have already appreciated so much that their prices are mainly justified by anticipated further increases and not by rents or profits. If investors find themselves with debt from buying these assets which is not justified by the returns, and higher interest rates raise the financing costs of debt, they will try to sell their assets. If many of them do this, the asset bubble bursts, and prices tumble.

[In Argentina, for example, apartment prices increased by 50 per cent and stock prices tripled in real terms between 1977 and 1981 before the bubble burst and all gains were lost within a year (Baliño, 1991).]

Highly indebted investors may find themselves with negative equity, i.e., the sales price would not cover their debt. In that situation, many investors may have literally lost everything and default on their loans. This results in the non-performing loans which undermine corporate and bank balance sheets.

Furthermore, the banks' capital often includes shares and real estate. If asset prices fall strongly, banks may have to write down the value of these assets in their books, which reduces the value of their capital, and limits their ability to extend new loans. If many banks are affected by the adverse effects of a bursting asset bubble, a financial crisis may emerge. This chain of events has been reported in many places from the Great Depression in the early 1930s, Latin America in the early 1980s, the Nordic countries in the early 1990s to East Asia most recently.

Crisis macro management has to balance the threats of deflation and hyperinflation.

If monetary policies (and possibly prudential standards) are relaxed and the central bank extends credits to troubled banks and companies this can trigger hyperinflation. Several Latin American and transition economies experienced this in recent decades. On the other hand, an excessively tight monetary stance may worsen the situation for banks if the resulting high real interest rates drive more companies into default on their loans. If tight monetary policies are followed by deflation, real interest rates rise as nominal interest cannot fall below zero. Furthermore, the real value of companies' debt grows, thereby undermining corporate and (indirectly) bank balance sheets. The Great Depression is the most well-known example of this type of crisis management error (Friedman and Schwartz, 1963).

Overvalued exchange rates followed by devaluation can initially undermine financial stability.

Fixed and overvalued exchange rates can contribute to boom-bust cycles and financial crisis through their implications on the balance-of-payments and on relative prices. This is a very complex issue. If the exchange rate is fixed to a currency with relative price stability like the US\$ or the Euro, and if expansionary monetary policies start causing inflation, the exchange rate appreciates in real terms. This raises, in particular, the price of goods and services which are not tradable (such as real estate) as compared to goods which are tradable (such as cars) because increases in the price of the latter products are kept under some control by competition from world markets. In other words, the choice of the exchange regime can worsen imbalances in relative prices and exacerbate asset price bubbles.

Expansionary policies also cause aggregate demand to outstrip domestic supply, the counterpart of which is a growing current account deficit. In the balance of payments this shows up as imports growing more quickly than exports. Strong demand draws in imports while the real currency appreciation makes exporters less competitive. The growing current account deficit has to be financed either through falling reserves or capital inflows. If then, for example, a real estate bubble bursts and much real estate-related debt becomes non-performing, investors may not be able to pay their loans to both domestic and foreign banks. Confidence declines, new financing becomes unavailable, and capital flight sets in. This, coupled with inadequate reserves, may then force the country to abandon its fixed exchange rate.

The potential repercussions from such a devaluation can be very grave in countries where many debt contracts are short term and in foreign currency. A devaluation increases the real (domestic currency) value of foreign currency-denominated debt significantly (Mishkin, 1998a). This may be bearable for companies with hard currency export earnings. But companies with local

currency revenue to finance foreign currency debt are much harder hit. Corporate bankruptcies follow, with the above-mentioned consequences for non-performing loans and bank balance sheets. In the Asian crisis countries, for example, much debt was denominated in foreign currency, and traders did not hedge their obligations in the belief the exchange rate would remain stable. When a large amount of short term loans became due and foreign financing dried up, several currencies experienced very steep falls, thereby exacerbating problems of companies indebted abroad. Although a devaluation can cause significant problems initially, we will see later that it can also be an important element of recovery from a crisis, as it improves the competitiveness of the domestic exporting and import-competing sectors instantaneously.

Poor banking regulation and supervision are another key cause of banking crises.

When banks are under-capitalized they are less able to weather major shocks. Inadequate licensing and management requirements result in poorly managed and, almost by definition, weak banks. If bankruptcy policies are not in place, and banks can continue operating even when they are in trouble, managers have an incentive to be more careless in extending risky loans (to recover their losses). Poor risk management has also been singled out as a main problem area in many countries (Kono et al., 1997; IMF, ICM, 1998). Lack of transparency is almost always criticized in the context of financial crisis. If, for example, a country's accounting rules do not require the timely and appropriate disclosure of non-performing loans, this can delay a timely response to emerging difficulties and exacerbate boom-bust cycles. Recall our example from above, starting with a healthy bank balance sheet. Assume that a borrower stops making interest and amortization payments on his loans. If the bank has to report and write off these loans, a regulator will require the bank to take corrective action before new lending can resume. This indirectly also puts a break on the lending boom, and thereby on asset price inflation. If there is no such reporting/provisioning requirement for nonperforming loans, the bank can continue lending, thereby further fuelling the lending and asset boom. Prudential regulation promoting transparency can hence help contain the emerging asset bubble and the danger of financial crisis. It is now widely held that lack of transparency, allowing non-performing loans to be hidden and delay adjustment in the financial sector facilitated complacency, prevented early warning, and contributed significantly to the depth of the Asian crisis.

Excessive exposure to one single borrower and lending to related parties is also often seen as leading to financial difficulties. If a bank makes a significant share of its loans to just one borrower, a default by the latter would most likely cause the bank to fail as well. Lending to bank employees and managers or companies who have a stake in the bank has often led to imprudent decisions and later difficulties. Negligence by regulators and supervisors in these areas has frequently been reported in past incidences of financial crisis. Finally, good regulation is not enough. Supervisors are often unwilling (because of poor incentives) or unable (because of inadequate means and skills) to perform their

tasks satisfactorily. If supervisors do not discover underreporting of non-performing loans, management errors, fraud etc. and do not demand corrective action, financial stability will suffer.

Inappropriate financial sector interventions, including “cronyism”, financial repression and protectionism contribute to financial difficulties.

Various other types of government intervention can undermine the health of the financial sector. Governments in many countries have burdened the financial system with costs which should normally be borne by the budget. An example of such policies is directing credits to priority firms and individuals at below market interest rates. This includes so-called political lending to friends and relatives of the ruling establishment. A related type of intervention aims at reducing government debt servicing costs. The most popular means is financial repression when financial institutions are forced to hold government debt at below market interest rates. Tanzi (1995) reports that some countries have reduced interest expenditure by several per cent of GDP via financial repression in the past.

Such interventions distort credit allocations and thereby reduce the growth potential of an economy. They can also undermine financial stability. The costs of subsidized credits or subsequent non-performing loans have to be met by earnings from other activities. If financial institutions are unsuccessful in making a compensatory profit elsewhere, or if they are not allowed to do so, their balance-sheets are weakened. Depending on the magnitude and severity of interventions, the latter can exacerbate or even trigger financial crises (Kono et. al., 1997). It should also be noted that financial sector interventions are often accompanied by restrictions against foreign financial service providers. This isolates the financial system and may, thereby, generate the rents to pay for the above-named government interventions. But it also shields the financial sector from healthy competition and innovation which, in turn, distorts investment and financial flows (Francois and Schuknecht, 1999).

Kono and Schuknecht (1998) find that restrictive regimes in financial services trade may have resulted in more distorted capital flows and less financial stability.

4.5: INTERNATIONAL INFLUENCES ON FINANCIAL STABILITY

Terms of trade shocks and international interest rate hikes can undermine financial stability in a similar manner as boom-bust cycles.

Two types of external shocks have contributed to financial crisis in the past: declines in the terms of trade and world interest rate increases. When countries experience a negative terms of trade shock, governments and corporate borrowers experience a fall in revenue which may make them unable to pay for their financial obligations at home and abroad. Debt-servicing problems, non-performing loans and financial crisis are likely to follow. Undiversified exporters of

commodities with much price variability are most likely to suffer financial crisis because much of the economy-wide loans are linked with the commodity sector. Examples include the post-boom financial crisis in Africa or Latin America in the early 1980s.

After the second oil crisis, which triggered stagflation (high inflation and low growth) in the West and a debt moratorium in Mexico in 1981, interest rates rose steeply. Most developing countries had contracted large amounts of debt at low or even negative real interest rates in the late 1970s. When interest rates shot up, so did the debt burden of many countries. The subsequent "debt crisis" triggered often not only external payment difficulties but also domestic debt crisis. Eichengreen and Rose (1997) find interest rate increases in industrial countries to be one of the main explanatory factors for financial crises in developing countries.

Lack of transparency promotes "herding" behaviour by international investors and contagion; implicit debt guarantees can result in "moral hazard"

The volatility of international capital flows can also contribute to financial crisis, especially in a non-transparent economic and policy environment. First, strong capital inflows can undermine countries' macro management. Capital inflows raise the money supply but anti-inflationary interest rate increases may then attract even more foreign money. Foreign money which finances asset acquisition and excess demand can also exacerbate an asset bubble. And poorly informed foreign investors are likely to continue "flocking" into a "fashionable" market when the lack of profitability of investment opportunities and financial difficulties are "disguised". When the bubble bursts, investors lose confidence and display "herding behaviour" again—this time in the other direction. Exaggerated inflows turn into excessive outflows which exacerbate the contraction of asset prices and, thereby, the pressure on financial systems. Poorly informed investors are also more likely to invest only for the short-term. This distorts the structure of capital flows and makes countries more vulnerable to changing investor sentiment (Kono and Schuknecht, 1998).

Herding behaviour and international contagion, we mentioned, largely go back to asymmetric information (see Wolf, 1999 for a survey). Growing international financial interdependence and the lack of transparency in many developing country financial markets contributes to spreading financial crisis. When Thailand slipped into crisis, investors began to look at other Asian nations more carefully. It has been widely argued that a lack of transparency had helped to hide problems there as well. Confidence collapsed and capital flows reversed. The five Asian crisis countries experienced average outflows of almost 4 per cent of GDP in 1997, after average inflows of a similar magnitude the year before. Banking systems which had already been weak before could not absorb the additional pressure. In late 1998, non-performing loans in the Asian crisis

countries were estimated at 20–30 per cent of all loans (IMF, WEO, October 1998).

A number of observers argue that the Asian financial crisis was triggered (or at least worsened) by moral hazard, as imprudent investors relied too much on implicit guarantees by governments. The argument is that investors bring more money into countries where they feel that their deposits are implicitly guaranteed than into those where they would have to bear part of the costs of financial difficulties. Although few people doubt the need of international emergency financing in principle, some observers argue that the “generous” bailout of Mexico by the international community in 1995 and the perception that international emergency funds are readily available at non-penalizing terms worsened the moral hazard problem in Asia as it made government debt guarantees more credible.

Protectionist responses during financial crisis are likely to raise rather than reduce pressure on financial systems.

Finally, financial crisis can spread through protectionist trade policies. At first, protection seems to be a ready means to raise the profitability of domestic producers which can then indirectly help strengthen the financial system. However, the adverse repercussions of protection are probably much more serious than the benefits. Protection raises the price of imports. If these are inputs for domestic producers competing in world markets, their competitiveness and financial position suffers. Furthermore protection can hurt foreign producers if they lose export business for which they have incurred fixed costs or if they can only sell such products elsewhere at a loss. This undermines the financial health of foreign producers and, indirectly, financial stability abroad. Finally, protectionist retaliation is likely and this, in turn, will hurt domestic exporters. The net effects of trade protection on the financial sector at home and abroad are, therefore, likely to be negative.

4.6: THE ECONOMIC, SOCIAL AND TRADE IMPLICATIONS OF FINANCIAL CRISIS

This part looks in more detail at the economic, social and trade implications of financial crisis which can be very grave indeed. First, the impact of crisis on macroeconomic variables, such as growth, money and the availability of credit, fiscal deficits, and the current account balance is analyzed. A discussion of the social consequences, especially regarding unemployment and poverty follows. Finally, we turn to the trade implications of financial crisis.

Economic and social implications of financial crises:

A financial crisis can create a credit crunch which, in turn, depresses economic activity

A financial crisis often has severe economic repercussions. If banks experience significant non-performing loans, they may come under pressure to improve their balance sheets. We have seen above that one way to do so is to reduce the loan portfolio by calling in old loans while not extending new ones. The resulting "credit crunch" is magnified in a full-fledged financial crisis when the lack of confidence and uncertainty makes banks even more reluctant to extend new loans to customers whom they cannot easily identify as "good" risks. Even healthy companies may find it difficult to obtain new credit when the banks which know about their good standing are in difficulties or out of business, and other banks do not know their creditworthiness. Uncertainty about future exchange rates (and thereby the profitability of activities) and the value of assets (which could serve as collateral) can worsen the "credit crunch". As a result, firms will find it difficult to get new financing for investment projects, and sometimes even capital for their production and trading activities. The corporate sector may be unable to repay called-in loans, and in extreme circumstances contracts may not be honoured due to lack of capital. All these factors depress economic activity. They may even lead to a vicious cycle of declining activity triggering more non-performing loans and bankruptcies which, in turn, again depress output.

Mexico in the post-1994 crisis period and the Asian countries after mid-1997 experienced a significant credit crunch (IMF, WEO, October 1998). Private sector credit typically expanded at a rate of 10–30 per cent in the pre-crisis year (which is also indicative of the asset price boom stimulated by loose credit policies before the crisis). As the financial crisis unfolded private sector credit started falling. In Mexico and Thailand the crunch was most pronounced, and private credit fell by 20–40 per cent in real terms. The other Asian crisis countries reported declines of up to 20 per cent in the first half of 1998.

Financial crises can have repercussions on growth abroad

Financial crisis can also depress economic activity abroad. If banks have to cover for unpaid debt, they may have to scale back their lending activities not only in the crisis country but also abroad. Similarly, a company experiencing losses from unpaid trade bills or diminished export opportunities, may want to cut investment. These spillovers and growing import competition from crisis countries are likely to depress economic activity in non-crisis countries as well. Repercussions are likely to be strongest in countries with close trade links and a large financial exposure to crisis countries. The Asian crisis provides a prominent example of global repercussions from financial crises. World growth projections have been repeatedly revised downward between May 1997 (pre-crisis period)

and fall 1998 (Table III.1). In May and still in October 1997, IMF growth forecasts were exuberant, looking at world growth of over 4 per cent for 1998 and 1999. By May 1998, growth for 1998 had been revised downward to about 3 per cent and by fall 1998 to only 2 per cent, before being revised slightly upward again in spring 1999. Growth prospects for 1999 had been reduced to 2.5 per cent by fall 1998. These projections include the direct effect of the financial crisis on economic activity in South-East Asia and also the indirect effect on other countries. Japan experienced the strongest revisions, as its economy and banking system were more exposed to South East Asia than the ones of other industrialized countries. Japan's 1998 growth projection was revised from almost 3 per cent in May 1997 to -2.5 per cent in October 1998. Other industrialized and developing countries, however, also found their growth forecasts reduced, especially after the financial crisis spread to Russia and threatened to affect Latin America.

Financial crisis can undermine monetary and fiscal stability.

The impact of financial crisis on other macroeconomic variables are also worth discussing. We mentioned above that monetary management is very difficult during financial crisis. If a country attempts to "solve" a crisis through extending central bank credit, such monetary expansion can lead to hyperinflation. Amongst the Asian countries, Indonesia probably came closest to this scenario as lack of reforms and central bank credit growth fuelled inflation in late 1997 and early 1998. On the other hand, financial crisis coupled with overly contractionary monetary policies can result in deflation with equally adverse consequences for economic activity. Tight monetary policies coupled with falling international commodity prices, deflation and accelerating bank failure in the late 1920s and early 1930s is now seen as key in explaining the Great Depression of the early 1930s. The fear of deflation, therefore, induced industrialized country central banks to reduce interest rates in late 1998.

TABLE 4.4: TRADE DEVELOPMENTS IN A COUNTRY WITH FINANCIAL CRISIS:

Issues	Exports volume I	Import volume
Credit crunch, confidence loss	Down	Down
Decline in domestic demand	Possibly up	Down
Financial and economic contagion	Down	--
<u>Policy choices:</u>		
Devaluation	Up	Down
International financial support	Possibly up	Up

Financial crisis put pressure on Govt. finances mainly through three channels.

First: they raise public expenditure on social obligations such as unemployment benefits and social assistance.

Second, revenue specially from the corporate profits tend to fall.

Third, fiscal deficit and public debt rise when governments have to bail out financial system with public money.

In this process the weakening public sector accounts and loss of confidence in holding domestic currency debt force the Govt. to print money, and in a vicious circle this causes hyperinflation and further economic deterioration.

The end of the boom and falling external financing often require painful adjustment of the current account and aggregate demand.

Financial crises also often require a painful adjustment of the current account, especially if the crisis was preceded by an economic boom, high external deficits and growing debt. An economic boom characterized by excess domestic demand and high current account deficits at some point has to be followed by a period of tighter demand and more balanced external accounts. But during a financial crisis, capital outflows may demand a large improvement in the current account, and this can only be achieved through a strong contraction of domestic demand.

If the crisis is severe, the credit crunch and the confidence loss cause domestic demand to shrink as producers stop or scale down investment projects and run down stocks, and consumers cancel or delay purchases. If the magnitude of this "automatic" adjustment in demand does not suffice to achieve the necessary adjustment in the external accounts, government fiscal policies may have to be contractionary to prevent external payment difficulties. But if the contraction of domestic demand "overshoots", there may be room for countervailing fiscal expansion.

With falling domestic demand and the onset of recession (or even depression), government social policies become very important. Despite the growing social needs, however, an excessively loose fiscal stance in times of crisis can be counterproductive. Fiscal expansion could offset the necessary adjustment of the current account and put pressure on the exchange rate by raising public consumption and deficits. Growing deficits might also absorb a large share of the available (and scarce) liquidity, thereby crowding out private investors and driving up interest rates.

In a severe crisis, international financial support can be of crucial importance to contain the decline in economic activity (by reducing the necessary adjustment in the current account) and to support crisis resolution. International support can

help prevent default on international debt payments, and thereby prevent worse repercussions on the domestic and international economy.

Foreign direct investment (FDI) can help re-capitalize banks and the corporate sector. Despite international support, the required external adjustment can still be enormous: some Asian countries experienced a turn-around in the current account by over 10 per cent of GDP between 1997 and 1998—and this is closely linked to the reversal in capital flows and the strong decline in economic growth in these countries.

Unemployment and poverty constitute the social costs of crisis

Financial crisis can cause considerable social hardship. As economic activity slows down, and banks and companies close or work at less than full capacity, people are laid off and real wages fall. The unemployed and those at the lower end of the wage scale who have to feed large families are most likely to suffer and are possibly even pushed below the poverty line. Social assistance programs become over-stretched, health and nutrition levels fall and the poorest may not be able to pay school-related expenditure for their children anymore. Acknowledging these costs, governments in crisis countries and the international community emphasize social safety nets and human capital formation in their assistance programs.

Trade implications of crisis:

Credit shortages are likely to reduce imports and may under certain circumstances, render trade financing more difficult

There are important trade implications for a country affected by financial crisis and we touched upon some of them above. First, the credit crunch following financial crisis adversely affects imports. Credit-financed investment projects (which usually have a large component of imported capital goods) are scaled back. The Great Depression, for example, witnessed a decline in gross investment by almost 90 per cent (Kindleberger, 1973), and the Asian crisis resulted in a decline in gross investment by about one third in Thailand and the Republic of Korea in 1998. Consumer credit is also likely to suffer, and together with falling consumer confidence, is likely to affect especially imports of consumer durables such as cars and luxury items.

The credit crunch can also adversely affect export and import volumes through raising the costs of trade financing. In a financial crisis, credits to finance imports or to advance export payments, like any other form of financing, will face higher interest rates. Premiums for export guarantees are bound to rise, as agencies find it more difficult to assess the creditworthiness of trading partners in crisis countries.

In severe crises with significant short term private debt and exchange rate volatility, producers may find it difficult to finance their trading activities at all. First, domestic banks may not be solvent enough to finance imports which are needed to produce exportables. Similarly, working capital may be hard to come by, even if the export orders for which the capital is needed have already come in. Second, uncertainty about the solvency of domestic producers—which is likely to be greater the higher their short term foreign indebtedness—may also undermine their ability to obtain credit. Third, exchange rate volatility may make banks reluctant to extend foreign currency letters of credit. An Indonesian bank, for example, may not want to guarantee a payment in dollars, if it does not know whether tomorrow's exchange rate still permits the domestic producer to pay.

Despite these obstacles to obtaining credit, and reported difficulties of obtaining trade-related financing, such claims should be examined with caution (Stephens, 1998a). Exporters are most likely to receive credits during a financial crisis. First, if the exporter is indebted domestically or abroad, cutting off trade credit lines is not in the interest of financial institutions. This would further reduce his ability to repay his debt. An exporter earning hard currency may also receive preferential treatment by banks which want to pay back hard-currency obligations elsewhere.

Second, exporters can find alternative means to finance their trading activities. The credit crunch can be circumvented through trade credit by foreign banks. Export proceeds can also be deposited in an escrow account out of which import bills are paid first, before the remaining funds are released to the exporter. Furthermore, in some instances difficulties in getting credit may be justified if the producer is insolvent and continuation of his operations is not guaranteed.

Declining growth reduces trading opportunities while raising competitive pressure

The decline in domestic demand accompanied by rising unemployment and declining business and consumer confidence depresses import volumes. Domestic producers whose home-markets are eroded by crisis may increase their sales abroad to seek alternative business and to service their financial obligations. This is likely to increase exports. On the other hand, in third countries, the loss of export opportunities to crisis countries and potential repercussions from financial problems can undermine growth. This in turn reduces the opportunities for exporters from crisis countries to sell abroad (second-order effects).

Devaluation and international financial support can stimulate trade

If a country devalues relative to its main trading partners, domestic producers of traded goods and services become more competitive at home and abroad. As a consequence, export volumes are likely to increase, while import growth slows down or even becomes negative. [Another concern sometimes raised is that of competitive devaluation. If all countries devalue the relative position of countries does not change.]

However, we have seen above that the “disorderly” abandonment of exchange rate pegs can result in extreme exchange rate volatility and “overshooting”, as experienced by some Asian countries, (Eichengreen and Masson, 1998). This can undermine trading activities as financing is withheld and corporate solvency is threatened. The costs of such financial turmoil may outweigh the benefits from a more competitive exchange rate in the short run, until financial markets have stabilized.

International financial support allows countries in crisis to sustain higher import levels. In as much as this takes pressure from the financial system, sustains economic activity and restores confidence, it can also be good for a country’s export performance. Bulgaria, for example, experienced a virtual collapse in the financial and productive sector and a severe contraction in exports and imports in 1996 and early 1997, before an international support package arranged through the IMF stabilized the economy and revitalized trade.

The Asian crisis resulted in substantial revisions in global trade projections.

At the global level, severe financial crises in important countries are not only likely to depress world output but also world trade. Table III.3 illustrates the adverse effect of financial crisis on global trade, as witnessed by the Asian crisis. Before the onset of the Asian crisis, the IMF WTO projected 1998 world export volume growth at 6.7 per cent. This was revised downward to 3.6 per cent in the October 1998 WTO and to a similar number in the 1998 WTO Annual Report, before being revised further to 3.1 percent in 1999.

Similarly, trade growth for 1999 has also been revised downward from 6.0 per cent (May 1998) to 3.7 per cent (May 1999). The change in projections for developing Asia is even more dramatic. In May 1997, the IMF WEO projected double-digit export and import growth for 1998. Subsequently export volume growth was revised downward to less than 4 per cent for both 1998 and 1999. Import volumes even contracted in 1998 before recovering to modest growth in 1999.

4.7: THE ROLE OF TRADE IN CRISIS PREVENTION AND RESOLUTION

A functioning trade financing system is important, but government intervention should be very careful to avoid unintended adverse consequences

Liberal trade policies and trade-related financial policies which help trade to flourish are key variables in preventing and solving financial crises. We mentioned above that breakdowns in trade-financing and trade protection can trigger and re-enforce a vicious circle of financial crisis and declining growth. Stephens(1998a) provides a detailed discussion of the role of trade financing and related government policies in preventing and coming out of crisis. It is noteworthy, that banks typically do not have an incentive to cut off (relatively low

risk) trade credit lines during financial crisis as this would undermine borrowers' ability to pay their debt. 5 But creditors and borrowers have an incentive to draw attention to trade financing problems strategically if they think that governments and international agencies might step in and provide more favorable financing. A careful assessment of the extent of the problem is therefore important before initiating such action.

Trade growth can be an important vehicle to emerge from crisis, and well-conceived trade liberalization and exchange rate adjustment can contribute to this aim.

During financial crisis, governments sometimes contemplate trade protection to provide relief to domestic producers. However, as outlined above, the effect on input prices, the distortions it creates, and the danger of retaliation do not make this an advisable option to deal with financial crisis. By contrast, trade liberalization has featured prominently in a number of countries to escape from financial crisis. The reason is that liberalization enhances economic efficiency and lowers input prices, and thereby helps the economy to escape from crisis through trade.

Trade liberalization is probably more feasible when combined with the correction of an overvalued exchange rate. This dual approach allows the efficiency gains to be reaped from freer trade for domestic and export-oriented industries while compensating import competing industries with the import-price-boosting effect of devaluation. Liberalization cum devaluation can then trigger a strong output response in the tradable goods sector which helps to re-ignite the economy and absorb unemployment. Devaluation alone could also boost the competitiveness of the export sector which, in turn, could help improve corporate balance sheets, repay debt, and speed up crisis resolution. We mentioned above that an "orderly" devaluation is key in minimizing adverse short-term repercussions of devaluation. High foreign debt can also reduce the beneficial effects of devaluation, as the increased debt burden in domestic currency terms may undermine the health of non-exporting producers.

The 1994 CFA franc devaluation in West Africa, which was also accompanied by trade liberalization measures, provided such an impetus to trade, and export volumes in most countries of the CFA zone increased strongly (Clément, Mueller, Cossé and LeDem, 1996). Mexico saw export volumes increase by over 50 per cent in the two years following the floating of the Peso at the end of 1994. Exports, thereby, contributed strongly to the economic rebound that occurred in Mexico in 1996. We will see in the next section that strong export growth also played a pivotal role in other financial crisis episodes, and is likely to do so in the context of the Asian financial crisis as well.

Liberal financial services trade policies can lead to more efficient and developed financial sectors, and less destabilizing capital flows.

The Asian crisis has shown that even countries with a seemingly favorable policy environment, including balanced fiscal accounts, export-oriented trade policies and relatively low import tariffs are not immune from financial crisis. As it turns out, policies have not always been as favorable as perceived, and inappropriate government interventions in the financial sector were particularly prominent. In several countries, domestic financial institutions suffered from directed and political lending. At the same time, certain protectionist policies in the financial services sector may have encouraged an over-emphasis on short-term lending in foreign financing (Kono and Schuknecht, 1998). In the Republic of Korea, for example, such policies probably favored short-term over long-term capital inflows (World Bank, 1998). A bias towards short-term lending in external financing is now widely seen as having exacerbated the financial turmoil in Asia.

Kono and Schuknecht (1998) discuss the importance of financial services trade policy for financial stability. The commercial presence of foreign service providers and liberalization across the full spectrum of financial services is particularly beneficial to financial systems. First such liberalization instills competition and encourages the transfer of skills (although it can give rise to transitional adjustment problems in the financial sector).

Second, market and infrastructure development, risk management and transparency are increased. Finally, a better information base for investors and deeper and broader financial markets are likely to generate a more balanced maturity and instrument structure of foreign debt which is less conducive to financial crisis.

Thailand and the Republic of Korea started changing their policy course in 1997 and, in a widely welcomed move, opened their financial services sectors to further foreign participation. Financial services trade liberalization could probably become an important vehicle of crisis prevention in other countries as well. The last Section will deal in more detail with the role of the WTO in this context.

4.8: STRATEGIES FOR FINANCIAL CRISIS PREVENTION AND RESOLUTION OUTSIDE TRADE POLICY

Here we briefly discuss the policy recommendations outside the trade area which are seen as key issues in solving financial crisis, i.e. macroeconomic and regulatory policies and issues related to the international financial architecture.

Proper macroeconomic policies are key for maintaining and regaining financial stability.

In previous parts, we described the adverse consequences of inappropriate monetary and fiscal policies on the financial sector. Much attention has been paid

to macroeconomic management to prevent and to solve financial crisis. Here we can only restate some basic principles. Crisis prevention involves cautious monetary and fiscal policies to prevent economic overheating. Both can help avoid a boom-bust cycle. Fiscal and monetary transparency is also important conditions for improving macroeconomic management. The IMF has been developing codes of conduct in these areas.

In some countries, interest rate ceilings and financial repression weaken the financial system. Such policies should be replaced by indirect monetary policy instruments and market based debt financing (coupled with fiscal consolidation if deficits are too high). This strengthens financial institutions and promotes financial market development. Political or directed lending should also be avoided as frequent losses from such loans weaken financial systems.

Overvalued exchange rates are not conducive to financial stability. However, an orderly exchange rate adjustment in the middle of a financial crisis is not always possible, especially if market participants did not hedge against a change in the peg, and financial market turmoil could result in strong exchange rate overshooting and volatility. This was the experience of several Asian crisis countries in late 1997 and early 1998. Although there is no one "right" exchange rate regime for all countries, Eichengreen and Masson (1998) and Mishkin (1998a) suggest that emerging market countries should seek more flexible exchange rate regimes in "good" times, so that there is enough flexibility for an "orderly" adjustment in times of crisis.

Strong prudential regulation and supervision in the financial sector is now widely held as a prerequisite to financial stability

Weak financial regulation and supervision in many countries and the globalization of financial activities has induced the development of the so-called Basel Core Principles for Effective a set of "Principles for effective Banking Supervision. These are guideposts for evaluating and reforming a country's regulatory and supervisory policies. The International Association of Insurance Supervisors (IAIS) released a set of "principles, standards and guidance papers" for insurance supervision dealing with internationally active insurance companies. We can only review a few core recommendations here, and more details are provided by BIS, IOSCO, IAIS and IMF reports, and Goodhart, Hartmann, Llewellyn, Rojas-Suarez and Weisbrod, (1998).

An adequate capital base is a safeguard against crisis; transparency, licensing, management and supervision of financial institutions may need to be improved

We noted before that the capital of the banking system is like a safety net to depositors. A bank with a large capital base is perceived to be more trustworthy and stable because depositors are more likely to get back their money even in hard times. A large capital base will also allow the bank to extend new loans when profitable investment projects are coming up. The Basle standards specify

a number of additional elements of effective banking regulation and supervision. Licensing, transfer of bank shares and ownership, corrective measures and liquidation procedures shall ensure that only competent and financially "healthy" banks offer financial services. Management has to be capable, and risk management needs to be up to scratch so that banks are not weakened from within. [A tightening of prudential standards during financial crisis can worsen the credit crunch as banks may have to cut back lending further to meet such tightened prudential standards] Supervisors must carry out their tasks effectively with adequate means and training, and political influence on supervisors should not undermine their role.

Much attention, however, has focused on increasing transparency. Accounting and auditing standards need to secure full transparency over the financial position of companies and financial institutions. Especially, uncertainty about non-performing loans can undermine confidence. The experience in Asia has shown that obfuscation first delays the response of investors. Once rumors of problems spread, domestic and foreign capital flight is likely to make things much worse than if transparency had allowed an earlier and more gradual response. The international harmonization of auditing and accounting standards is, therefore, an important step in both strengthening domestic financial systems and preventing international "herding" behavior.

Government intervention may be necessary to re-start the economy, but reforms should aim at preventing the recurrence of crisis.

Should governments "help" financial institutions in the case of crisis? This is a difficult question to answer, and a case by case approach on how and to what extent governments should intervene is probably warranted. In the case of isolated bank failures, governments may be well advised to take a hands-off approach and let those institutions be liquidated or taken over. This also provides a ready warning for other institutions. In case of a "systemic" crisis, however, governments can hardly watch the banking system collapse. But governments should not just provide financial support. They should also secure that orderly procedures for the liquidation, restructuring or recapitalization are in place (Folkerts-Landau and Lindgren, 1998), and they should also create the regulatory and macroeconomic policy framework which prevents the recurrence of crisis in the future.

On the procedural level, laws and regulations for bankruptcy and corrective action are very important. Very weak banks often should not be allowed to continue operating as they are likely to take on excessive risk and, thereby, raise the costs of crisis unnecessarily. Conservator ship (control by the supervisory authority) or closure (if there are no chances for return to profitability) might be necessary in this case. Lender of last resort facilities can help protecting the payments system, avoid runs, and prevent illiquidity which could lead to insolvency. Speedy, collateralized short term lending at penalty rates could be

made available to the financial system. A deposit insurance scheme can also provide a safety net for depositors but a number of pitfalls must be avoided (see IMF, 1998a and b for more detail).

When non-performing loans are very extensive and widespread, the banking system may need to be rehabilitated. The weakest institutions may be closed down while public funds could save distressed but viable banks. Governments can re-capitalize the latter directly. Nationalization through an independent public agency and a later resale to the private sector is another option (IMF, WTO 10/98). In any case, public intervention and funds should be employed in a way that minimizes moral hazard (IMF, ICM, p 73ff). There may be a need for a large amount of public funds as the latter must be sufficient to re-establish confidence. The bail-out package decided by the Japanese government in fall 1998, for example, foresees public funds of up to 60 trillion yen (12 per cent of GDP) to revitalize the financial system.

Herding behavior and moral hazard may warrant better international transparency, early warning, private sector “burden sharing”, and international cooperation.

We identified herding behavior and moral hazard arising from implicit debt guarantees as the two ways by which international investors and capital flows can exacerbate financial crisis. After the onset of the Asian crisis, the debate on these problems intensified, and although there is no certainty as to the degree that this problem contributed to the depth of the crisis, a number of remedies have been implemented or are under discussion.

First, we mentioned that a number of international standards have been developed to improve the transparency and the regulation and supervision of financial markets. These include the Basle standards, securities and insurance regulation standards, the IMF fiscal and monetary standards, and the development of international accounting and corporate governance standards. Private sector efforts aim at improving and coordinating payment systems to reduce foreign exchange settlement risks over different time zones. These initiatives enhance the institutional infrastructure, the international comparability of companies' and financial institutions' health, and the soundness of macroeconomic and regulatory policies.

For the same transparency reasons, data dissemination standards have been developed, and the IMF now provides information about countries' key economic and financial data. Revised data standards are being developed to adapt them to the new financial sector challenges. Revisions on the reporting of foreign debt, international reserves (including forward commitments by central banks), and exposure by international investors, including investment banks and hedge funds are under consideration. Economic and financial early warning indicators are also being developed. An international "financial stability forum" intends to strengthen international surveillance and supervision. Orderly capital market and capital account liberalization are of key importance to maintaining financial stability,

especially when the appropriate policy framework is not in place (Johnston, 198; IMF, ICM, 1998). In some instances, capital controls may need to be retained (Dooley, 1995), although price-based measures are clearly preferable to quantitative restrictions (Schuknecht, 1999). Chilean type reserve requirements on term flows considerable attention in this context (see Laurens and Cardoso, 1998, for more details on this case).

International communication and cooperation between governments and supervisors needs to be strengthened to improve transparency and crisis management. The IMF has been asked to improve its surveillance process, and a new financing facility for crisis countries (charging a penalty rate in return for speedy disbursement)has been put in place. Finally, private sector "burden sharing" and better mechanisms for orderly crisis resolution (also sometimes called debtor-creditor regimes) are being discussed. Governments may need to exercise great care when (explicitly or implicitly) guaranteeing financial liabilities. On many of these issues, however, the discussion is still very much in flux.

Countries which tackle their policy problems rapidly can reduce the severity and duration of crisis

Finally, the effect of crisis on trade and growth depends on the speed and determination with which policy makers address the crisis. A country which speedily implements far-reaching reforms is more likely to come out of the crisis quickly with less protracted declines in trade and growth. Mexico, for example, experienced a steep decline in growth and imports in 1995 before a strong rebound only one year later. Japan, by contrast, had not been able to implement adequate reforms until 1998,several years after financial difficulties had started undermining economic growth.