

2 Recent Issues in International Finance: A Literature Review

2.1 Introduction

The purpose of this chapter is to overview the main issues in international finance such as financial liberalisation, focusing on the process as a possible cause of financial crisis. The rest of this chapter is organised as follows. Section 2.2 provides an overview and review of literature on the sequence and order of financial liberalisation. Section 2.3 reviews capital controls, and focuses on two types of controls, namely, controls on capital outflows and inflows. Section 2.4 gives a brief discussion of factors that influence the choice of exchange rate policy, and presents an overview of both fixed and flexible exchange rates, and presents a social choice approach for choosing an appropriate exchange rate regime. Further, Sect. 2.5 first gives an overview of asymmetric information, before reviewing theories of adverse selection and moral hazard. Section 2.6 finally, summarises the chapter.

2.2 Financial Liberalisation: Sequence and Order

In the new age of global capital markets, developing countries have been popular destinations for international investment funds. As a result, financial liberalisation in developing countries is now seen by many to be an irresistible trend (Rajan 2001a,b). The integrated capital market has been regarded as a necessity for developing countries to benefit from globalising capital markets. But it has been also claimed that some developing countries have become economically vulnerable from financial market integration (Lane et al. 1999; Gab 2000) and financial liberalisation. Indeed, it has been argued that the economic and financial crisis that followed this integration has highlighted an incorrectly ordered and perhaps hasty process of financial liberalisation, and has demonstrated the necessity of an

appropriate and correct sequence of financial liberalisation (Hallwood and MacDonald 2000).¹

2.2.1 Overview

A study by Gab (2000) concluded that financial liberalisation generates both benefits and disruption to developing countries. A study by Sauve (1999) reported that high economic growth in Asia, led by high trade and investments, is a prime example of the benefits from financial liberalisation. While Brooks and Oh (1999) argue that the recent crisis in Asia revealed risks associated with financial liberalisation, for instance high external debts, over-investments and so on. Other views (Goldstein and Turner 1996; Caprio et al. 1997; Demirguc-Kunt and Detragiache 1997a, 1997b; Honohan 1997; Williamson and Mahar 1998; Chirathivat 1999) hold that high capital flows imply the international capital market is fundamentally unstable and disruptive, suggesting the need for tight capital control to stabilise emerging financial markets. High capital flows can be followed by a financial crisis accompanied by large shifts in interest rate spreads between emerging markets and world financial centres and by sharp movements in exchange rates. On the other hand, the proponents of high capital flows say that speculative capital flow has a stabilising effect that raises efficiency in the economy. Traditional views (Jung 1986; Gelb 1989; DeGregorio and Guidotti 1992; King and Levine 1993) supporting high capital flows say that a potential positive role of high capital flows is to provide incentives for policy makers who are politically opportunistic to follow efficiency-increasing economic policies. Recent intermediate views (Arestos and Demetriades 1999; Brooks and Oh 1999; Ariff and Khalid 2000) of the public choice approach argue that the discipline effect from international capital flows is not sufficiently farsighted, and that the

¹ For discussion of this view, see for example Williamson (1982), McKinnon (1982), Edwards (1984, 1986), Corbo and deMelo (1987), Edwards and Edwards (1987), Kahkonen (1987), Fry (1988), World Bank (1989a,b), Collier and Gunning (1992), Falvey and Kim (1992), Williamson and Mahar (1998), Rajan (2001a,b) and Rajan and Bird (2001). On the other hand, Siamwalla (2000) argues that the recent crisis in Asia was not entirely due to an inappropriate sequence of financial liberalisation, but highlighted poor management of the financial market. While, Aoki (1997) and Mishkin (1997, 1999) concluded that the crisis was due to problems of asymmetric information, Valdes-Prieto and Soto (1998) blamed it on a lack of capital controls and Pantusane (1998) views the mismanagement of exchange rate policy as a cause of the crisis.

inherent short-sightedness of this discipline effect can explain the recent crises (Ito 1998; Gab 2000).

Recent empirical studies have concluded that inappropriately sequenced financial liberalisation has been an important contributory factor to the boom and crash cycles in emerging economies (Williamson and Mahar 1998). Gourinchas et al. (1999) studied lending boom episodes across ninety-one countries during the period 1960–1996, and concluded that the probability of experiencing a financial crisis was significantly greater following a lending boom, linking this to financial liberalisation. Empirical studies by Demirguc-Kunt and Detragiache (1998) and Hutchison and McDill (1999)² found that a financial crisis was more likely in a liberalised financial system, particularly when the institutional support was weak. Kaminsky and Reinhart (1999) concluded that in eighteen of the twenty-six banking crises in their sample, the financial sector had been liberalised some time during the previous five years (Rajan 2001).

2.2.2 Sequence and Order of Financial Liberalisation: A Literature Review

According to Sundararajan (1999), orderly liberalisation often requires implementation of critical and massive reforms simultaneously. What is needed is a package of reforms involving different components of the financial sector, such as aspects of banking supervision, money markets, monetary operations and central banking. He argues that, at the least, this is necessary for financial stability reasons, and to be able to be effective in implementing stabilisation policies.

The influential views on the sequence of liberalisation of Edwards (1989a) and McKinnon (1993) assert that domestic financial market liberalisation and current account liberalisation should be implemented first, followed by capital account liberalisation. Moreover, early literature on the optimal sequencing of economic reform also suggests the importance of capital controls during the process of development.³ In this view, liberalisation of the capital account should not be undertaken until the end of the process; freeing up capital flows prematurely before domestic and trade

² Samples in Demirguc-Kunt and Detragiache (1998) include a panel of fifty-three countries for the period 1980–95 and ninety-seven countries for the period 1975–97 by Hutchison and McDill (1999).

³ Burkett and Lotspeich (1993) argue that financial liberalisation should not take place until both fiscal and monetary controls are established. Also see Wihlborg and Willet (1997) and Whitt (1999) for discussion of this view.

liberalisation could lead to economic instability (McKinnon 1973, 1993; Edwards 1984; Balassa 1990; Glick and Hutchison 2000).

McKinnon (1993) and Burkett and Lotspeich (1993) argue that there are at least two reasons why capital account liberalisation should be delayed until the end of the reform sequence. First, if inflows occur prior to the completion of trade reforms, the domestic allocation of foreign savings may not be efficient. Second, whether or not trade reforms are initially in place, a rapid inflow of capital will cause real appreciation of the exchange rate, which makes it difficult for domestic tradeable producers to adjust to the removal of protection. Thus, a massive influx of capital at the time liberalisation occurs, finances an unusual increase in imports while decreasing exports and gives out the wrong long-run price signals to private market participants (Edwards 1984). In addition, other elements of a supporting policy package for orderly capital account liberalisation are restructuring weak and insolvent banks. Indeed, where banks are weak or insolvent, one would want to restrict their access to international capital flows, and so there may be a case for imposing controls on selective capital movements. Furthermore, there would be a need to strengthen auditing, accounting and disclosure practices (Sundararajan 1999).

McKinnon (1993) has attempted to account for institutional capabilities and weaknesses, with 'the optimal order of economic liberalisation'. It is thus argued that:

...how fiscal, monetary, and foreign exchange policies are sequenced is of critical importance. Government cannot, and perhaps should not, undertake all liberalising measures simultaneously. Instead, there is an – 'optimal' order of economic liberalisation, which may vary for different liberalising economies depending on their initial conditions. (McKinnon 1993, p. 77)

McKinnon elaborates by suggesting that the speed of adjustment is sluggish in the goods markets, and faster in the financial markets. Thus, financial markets could not be reformed in the same manner and at the same time as other markets, without creating awkward difficulties. Recognition of these problems has led to the proposition of sequencing in financial reforms. Successful reform of the real sector is seen as a prerequisite to financial reform. Thus, financial restraint would have to be maintained during the first stage of economic liberalisation. Furthermore, different aspects of reform programs may work at cross-purposes, disrupting the real sector in the process. This is precisely what Sachs (1989) labelled as 'competition of instruments'. Such conflict can occur when abrupt increases in interest rates cause the exchange rate to appreciate rapidly thus damaging the real sector. Sequencing becomes important again. It is thus suggested that liberalisation of foreign markets should take place after

liberalisation of domestic financial markets. In this context, proponent views on financial liberalisation suggest caution in sequencing in the sense of a gradual process of liberalisation emphasising the achievement of macroeconomic stability and adequate bank supervision as preconditions for successful financial reform. It is also argued by proponent views of financial liberalisation that the authorities should move more aggressively on financial reform in good times, and rather slowly when borrowers' net worth is reduced by negative shocks, such as recessions and losses due to changes in the terms of trade (World Bank 1989b; Arestos and Demetriades 1999).

Falvey and Kim (1992) and Caprio et al. (1994) have reviewed financial reforms in a number of countries, primarily developing countries, and studied the experience of six countries at some length. They conclude that appropriate sequencing along with favourable initial conditions of financial markets and macroeconomic stability are critical elements in the successful implementation of financial reforms.

In the light of the poor results that followed the Latin American financial liberalisation in the 1970s and early 1980s, many economists now recognise that financial liberalisation in developing countries is most successful when it is gradual (Kahkonen 1987; McKinnon 1989; Villanueva and Mirakhor 1990b). In principle, the order of liberalisation now accepted by some economists is the following sequence (see Fig. 2.1).

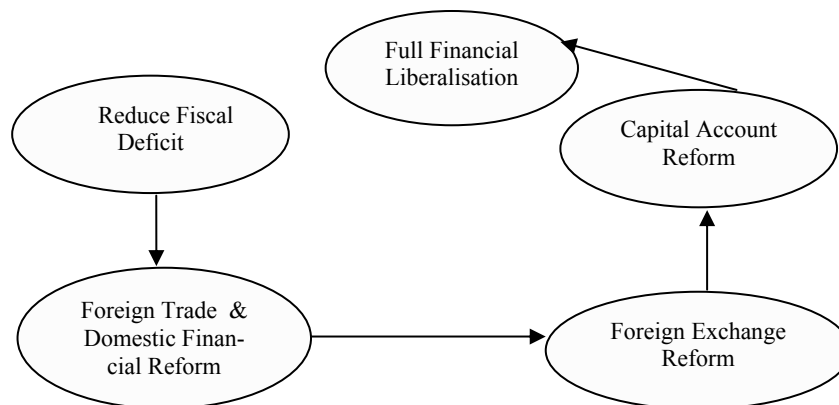


Fig. 2.1. Sequence of financial liberalisation

Source: Adapted from Hallwood and MacDonald (2000).

A study by McKinnon (1993) has reviewed the three prerequisites for successful reform which are the establishment of macro-financial control

by lowering government deficits, the correct sequencing of domestic financial market reforms including reductions in trade restrictions and deregulation of external capital flows, and prudential regulations on bank activities to prevent financial market instability from derailing the liberalisation process. Hallwood and MacDonald (2000) argue that there are five major areas where financial liberalisation measures need to be taken. The five areas include reduction of the fiscal deficit, liberalisation of domestic financial system, liberalisation of foreign trade, liberalisation of foreign exchange control, and exchange rate management. Additionally, Caprio et al. (1994) argue that successful liberalisation will depend on the speed of implementation of the process of financial liberalisation, which should be done gradually. In this gradual process a sequencing of financial liberalisation (Edwards 1986, 1989a; McKinnon 1993; Johnson et al. 1997) is recommended, emphasising the achievement of stability in the broader macroeconomic environment and adequate bank supervision within which financial reforms were to be undertaken (McKinnon 1988; Cho and Khatkhate 1989; Sachs 1989; Villanueva and Mirakhor 1990a,b). Employing credibility arguments, Calvo (1988), Rodrik (1987) and Arestos and Demetriades (1999) suggest a narrow focus of reforms with financial liberalisation left as last. In principle, it is widely agreed that a gradual process is recommended for successful financial liberalisation and the appropriate sequencing of financial liberalisation consists of reductions of deficits, foreign trade and domestic financial reforms, foreign exchange rate reforms, and capital account reform, left to the last.

2.3 Capital Controls

Capital control is another important issue in international monetary economics. The window of opportunity offered by capital controls has been abused by certain powerfully-connected business interests, not only to secure publicly funded bail-outs at public expense, but even to consolidate and extend their corporate domination, especially in the crucial financial sector. Capital controls have been part of a package focused on saving friends of the regime, usually at the public's expense (Jomo 2001, p. 55).

Currency controls are a risky, stopgap measure, but some gaps desperately need to be stopped. (Krugman 1998b, p. 1)

The volume of foreign capital transactions has increased dramatically in recent years both for developed and developing countries. The forces of globalisation have pushed both investors and borrowers into international

financial markets.⁴ The liberalisation of financial markets has also presented crucial challenges for policymakers in controlling the flows of capital (Dooley 1996; Cardenas and Barrera 1997). Neely (1999) defines capital controls as any policy implemented to limit capital account transactions. Bakker (1996) argues that this broad definition makes it difficult to generalise the issues of capital controls as they can take many forms and can be utilised for various purposes.⁵ Furthermore, Edwards (1999) suggests that the series of crises has demonstrated the need for controls over capital. Recent studies on the new international financial theories have focused on two types of capital controls, namely, controls of capital outflows and inflows (Edwards 1999; Neely 1999).

2.3.1 Controls on Capital Outflows

A number of academic economists have argued that controls on capital outflows have been one of the solutions to deal with a financial crisis (Edwards 1998, 1999). In most cases, controls on capital outflows are applied to postpone a choice between devaluation and tighter monetary policy (Neely 1999). In his article, Krugman (1998a) argued that controls on capital outflows are useful, at least to prevent a speculative attack from both domestic and international sources. In essence, Edwards and Edwards (1987) has delineated the two major types of controls on capital outflows, 'preventive controls' and 'curative controls', which are discussed in the following section.

2.3.1.1 Preventive Controls on Capital Outflows

Generally, these are employed when a country is facing a balance of payments deficit, but has not yet suffered currency devaluation (Edwards 1999). Preventive controls include taxes on funds remitted from international transactions, dual exchange rates with a more depreciated rate applied for capital transactions, and outright prohibition of fund transfers (Yoshitomi and Shirai 2000). The main objectives of these types of control are to slow down the drain of foreign reserves, and at the same time,

⁴ Edwards (1999) argues that globalisation gives rise to capital mobility and has created a highly unstable international financial system. Mussa (2000) reveals the danger of high openness to international capital flows, especially short-term flows to countries with weak or inconsistent macroeconomic policies or inadequately capitalised and regulated financial system.

⁵ See Alesina et al. (1994) and Grilli and Milesi-Ferrenti (1995) for empirical studies of factors associated with capital controls.

provide authorities with time to implement corrective policies, while fending off speculation (Edwards 1999; Yoshitomi and Shirai 2000).

According to Edwards (1999) and Yoshitomi and Shirai (2000), some earlier empirical evidence suggests that preventive controls are likely to be ineffective. Studies by Edwards (1989b) and Edwards and Santaella (1993) showed that the private sector would find ways to circumvent the controls in the months prior to a devaluation crisis. Results from their studies reported that almost 70% of the cases where the controls on outflows were applied as a preventive approach resulted in a large increase in capital flight at the end. Similarly, a study by Cuddington (1986) on the determinants of capital flight in developing countries came up with the same conclusion. Kaminsky and Reinhart (1999) found that the authorities tried unsuccessfully to avoid currency collapse by introducing controls on capital outflows. Additionally, Edwards (1999) and Yoshitomi and Shirai (2000) argue that capital controls often give a false sense of security that encourage complacent and careless behaviour on part of the authorities.

Some economists believe that these types of controls have been far less successful. Edwards (1999) argues that controls of capital outflows introduce corruption, as international investors bribe local authorities to move their money out of a country facing prospective financial crisis (Yoshitomi and Shirai 2000). Under these circumstances, the authorities usually fail to implement a credible and effective program after the controls are in place (Yoshitomi and Shirai 2000). In other words, preventive controls are unlikely to help improve macroeconomic disequilibrium. Rogoff (1999) believes that preventive controls are too costly to run, as their disadvantages outweigh the benefits.

2.3.1.2 Curative Controls on Capital Outflows

In contrast to preventive controls, curative controls are usually imposed when a country is already experiencing a crisis. Krugman (1998a) argues that a country facing a major crisis can benefit from imposing temporary controls on capital outflows. For instance, it can help a crisis-country to lower the domestic interest rate and encourage domestic demand (Krugman 1998a; Edwards 1999; Yoshitomi and Shirai 2000). These controls also allow a country in crisis, additional time to put their financial sector back in order. However, once a country's financial sector is back on its feet, controls need to be removed (Edwards 1999).

Edwards (1999) concluded that the usefulness of curative controls on outflows is not conclusive. Yoshitomi and Shirai (2000) argue that these types of controls in a post-crisis period have not been helpful. For instance, an empirical study by Edwards (1989b) reported that 50% of sample

countries had unsuccessfully attempted to avoid the crises by imposing curative controls, which failed to improve the balance of payments. Two-thirds of the countries experienced unsatisfactory GDP growth after the financial crisis. While, only 35% of the countries that did not apply curative controls went through an economic slowdown.

Additionally, Latin American countries such as Argentina, Mexico and Brazil that implemented controls on outflows in the 1980s crisis, experienced a long-term economic slowdown, high unemployment and high inflation (Edwards 1999; Yoshitomi and Shirai 2000).

2.3.2 Controls on Capital Inflows

In the aftermath of the East Asian crisis, there has been increasing support for the imposition of controls on capital inflows, as a way of preventing future currency crises (Eichengreen 1999). Controls on inflows are expected to protect emerging countries from international speculation, while at the same time allowing them to undertake an independent monetary policy (Edwards 1999). Furthermore, Khor (1998) concluded that controls on capital inflows are imposed for two reasons: first, as part of macroeconomic management to reinforce or substitute for monetary and fiscal measures; and second, to attain long-term national development goals, for instance, to put in place regional controls ensuring residents' funds are locally invested or that certain types of activities are reserved for residents.

Theoretically, controls on capital inflows can be under taken in two forms, administrative (directly) and market-based (indirectly) (Moreno 2001). Administrative or direct controls involve outright prohibitions on certain transactions, minimum maturity or stay requirements, or other methods. Market-based or indirect controls attempt to discourage particular capital movements by making them more costly, and involve direct or indirect taxes, including, unremunerated reserve requirements (URR)⁶ or regulatory and reporting requirements. Similarly, however, Neely (1999) concluded that capital controls can be distinguished by price mechanisms (including taxing certain inflows transactions) and quantity controls (involve quotas or outright prohibitions on incoming capital). In principle, taxing capital inflows can be helpful in curbing an excessive temporary increase in economic activity, particularly in private consumption, that is being financed to a large extent by capital flows (Reinhart and Smith 2001). Crotty and Epstein (1999) stressed that the most efficient way to control

⁶ See for example, DeGregorio et al. (2000) for empirical work of URR on capital inflows.

capital inflows is to rely on taxation. The two tax mechanisms that have gained support in the economic literature are URRs and the Tobin tax.

Taxation of capital inflows in the form of URRs has been one of the most frequently used controls.⁷ Banks, and non-banks dealing on their own account, are required to deposit at zero interest with the central bank an amount of domestic or foreign currency equivalent to a proportion of the inflows or their net position in foreign currency. URRs may be used to limit capital inflows for particular types of transaction. For instance, Chile during 1991–1998 required foreign investors to leave a fraction of their short-term bank deposits with the central bank, earning no interest. The Chilean reserve requirement applied not only to bank deposits, but also to many types of capital inflows. As the deposits earn no interest and allow the central bank to buy foreign money market instruments, the reserve requirement effectively functions as a tax on capital inflows (Edwards 1998).

Another type of tax mechanism that has gained support in the literature is the ‘Tobin’ tax, proposed by James Tobin in 1972. The Tobin tax charges participants a small percentage of all foreign exchange transactions (ul Haq et al. 1996; Kasa 1999). Advocates of such a tax argue that it diminishes foreign exchange market volatility by curtailing the incentive to switch positions over the short term in the foreign exchange market. It has also been argued that there are many potential problems with a Tobin tax. The tax might reduce liquidity in foreign exchange markets or be evaded easily through derivative instruments. It is uncertain who would collect the tax or for what purposes the revenue would be used. Lastly, a Tobin tax would have to be enacted by widespread international agreement to be successful.

2.4 Exchange Rate Policy

The choice between fixed and flexible exchange rates has long been one of the most fundamental issues in international finance (Collignon et al. 1999). Furthermore, the debate between fixed and flexible exchange rates is often phrased as a choice between absolutes. However, the early literature introduced by Mundell (1961) and McKinnon (1963) concluded that one choice cannot be right for all countries. According to Hossain and Chowdhury (1996), most developed countries are open economies and follow exchange rate policies that can be characterised as a fixed or flexible

⁷ See Bundnevich and LeFort (1997), Laurens and Cardoso (1998), and Valdes-Prieto and Soto (1998) for studies examining the effects of the URR on capital inflows.

foreign exchange regime. We will first review the factors behind the choice of exchange rate policies in Sect. 2.4.1. Then, Sect. 2.4.2 provides an argument between fixed and flexible exchange rates.

2.4.1 Factors Influencing a Choice of Exchange Rate Policy

The exchange rate is said to be the most important single price in the economy (Kenen 1994). There may be good reasons for either fixing it or for letting it float, depending on the structure of an economy and its trade pattern. Decisions concerning the choice of future exchange rate regimes, however, need to be internally and logically consistent. The authorities may pursue various decision criteria in choosing an appropriate exchange rate system (Visser 2000).⁸ Frankel et al. (1991) argue that the final choice by the authorities depends on three main factors: the structural characteristics of an economy, the need to reinforce the credibility of monetary policy, and the existence of a regional cooperation agreement. On the other hand, Hallwood and MacDonald (2000) argue that five factors are likely to be relevant concerning a choice of exchange rate policies: the country's size, its degree of openness, its degree of international financial integration, its inflation relative to the world average, and its trade pattern.

Indeed, the question of whether developing countries are better off with a fixed or a flexible exchange rate system is a difficult one. In sum, the optimal management of the exchange rate depends on the underlying socio-economic and institutional set up, the policymakers' social and economic objectives, the source of shocks to the economy, trade policy, international agreements on financial cooperation and the structure of the economy (Rusidy and Islam (2007); Frankel et al. 1991; Hallwood and MacDonald 2000; Mussa et al. 2000). Rusidy and Islam (2007) argue that the choice of an appropriate exchange rate regime is essentially a normative social choice problem (Arrow et al. 2003). Like social choice problems in other areas, this social choice problem in the choice of an appropriate exchange rate regime that depends on the underlying socio-economic and institutional conditions, social value judgments and preferences of that country (Hipsher et al. 2007).

⁸ See Edwards (1996) for a theoretical study on a choice between fixed and flexible exchange rate regimes.

2.4.2 Overview of Fixed and Flexible Exchange Rate

Should countries adopt fixed or flexible exchange rates? One way to tackle this age-old question is to consider which exchange rate regime provides more discipline against loose monetary policies, high fiscal spending, or excessive wage demands. Recent conventional wisdom within the economics profession holds that fixed rates provide more discipline (Aghevli et al. 1991; Frankel et al. 1991). Tornell and Velasco (1995) concluded that fixed rates induce more fiscal discipline because adopting lax fiscal policies must eventually lead to an exhaustion of reserves and an end to pegging the rate.

Fixed exchange regimes have been adopted as part of the macroeconomic stabilisation programs employed by different countries in different times (Hansanti 2005). This diversity of circumstances makes it unlikely that there is any consistent pattern in the outcomes of these stabilisation attempts (Rebelo 1997). Krugman (1979) stresses that a fixed exchange rate regime establishes important links between fiscal policy and monetary policy. Governments with large fiscal imbalances may have to resort to the monetization of the deficit, which leads to a gradual loss in reserves and renders vulnerable to speculative attack (Hansanti 2005).

Following a pegging of exchange rates, developing economies tend to experience an increase in GDP, a large expansion of production in the non-tradeable sector, a contraction in tradeable productions, a current account deterioration, an increase in the real wage, a reduction in unemployment, a sharp appreciation in the relative price of non-tradeable, and a boom in the real estate market (Rebelo 1997). Similarly, Vegh (1992) suggests that after fixing the exchange rate, the economy tends to experience the following.

- There is an economic expansion: consumption rises, real wage increases, the rate of unemployment falls, and there is often a boom in the real estate market. Investment increases in many causes, but not as strongly or as consistently as consumption.
- The relative price of non-tradeable goods + services increases rapidly, slowing down the decline in the rate of inflation.
- The current account and the trade balance deteriorate.
- Production in the tradeable sector often falls relative to trend.
- There is initially a large fiscal adjustment of temporary programs.
- The initial expansion in economic activity tends to be followed by a slowdown.

According to Branson and Papefstratiou (1981), a country's choice of currency peg should be determined by the geographic structure of its foreign trade. In particular, if its foreign trade is mainly with a single partner, it should peg to that country's exchange rate, this will help to stabilise relative prices by constraining exchange rate fluctuations (Hansanti 2005, 2006).

There are several arguments in favour of a fixed exchange rate. Pegging to a low inflation currency can provide a credible anchor for restraining domestic inflation expectations, as long as expectations that the fixed exchange rate will not be abandoned are credible. Another argument for a peg is that it fosters fiscal or monetary policy discipline by curbing the temptation to follow excessively stimulatory macroeconomic policies that would lead to an exhaustion of foreign exchange reserves and an end to the peg.⁹ At the micro level, a fixed exchange rate may also reduce transaction costs and exchange rate risks, which can discourage trade and investment (Glick 2000; Visser 2000).¹⁰

According to Glick (2000), the main cost of a fixed exchange rate is the loss of macroeconomic flexibility in the response to shocks, particularly those that affect the equilibrium real exchange rate.¹¹ Giving up an escape clause to exercise devaluation, during times of severe global downturn, may be undesirable, if the short-term cost of defending the peg exceeds the long-term benefit of maintaining it. The loss of the domestic central bank as a lender of last resort can also be costly. Lastly, fixed rates lacking credibility leave countries open to speculative attacks on their currencies, and serve as a 'lightning rod' for concerns about broader debt and banking problems as well as government macroeconomic policies, and may spawn crises that greatly amplify the costs of adjustment.

In addition, fixing currencies has the advantage of reducing the average fluctuation of the domestic currency to other currencies, thus, reducing the risk for those who have to take an open position in various currencies. In other words, a peg implies that all traders would bear no exchange rate risk (Hansanti 2005). A country without well-developed financial markets may find it advantageous to peg to a single major currency and thereby

⁹ However, Tornell and Velasco (1995) argue that flexible rates may provide more fiscal discipline through the more immediate effects of lax policies on the exchange rate and the price level.

¹⁰ Eichengreen and Hausmann (1999) argue that emerging market economies could benefit from a fixed exchange rate as countries can borrow for the long-term in local currency either from abroad or domestically, creating a match between assets and liabilities.

¹¹ Edwards and Savastano (1999) argue that fixed exchange regimes may give rise to real overvaluation of a currency and increase inflation.

effectively expand the domain of its currency by allowing market participants to take advantage of services available for that major currency (Mussa et al. 2000).¹²

In regard to a flexible exchange rate, it is argued that floating exchange rates insulate a country from external shocks or terms of trade movements (Hansanti 2005). For instance, if there is a large balance of payments deficit due to an external shock such as an increase in oil prices, money supply will decline under a fixed exchange rate system in the absence of sterilisation. This will have a contractionary impact on the domestic economy. However, under the floating exchange rate system, the exchange rate will depreciate in response to balance of payments deficits without any contractionary impact on money supply and the domestic economy (Hossain and Chowdhury 1996).

Frankel (1995) argues that the advantages of flexible rates include, being freed of the obligation to keep the exchange rate fixed and monetary policy can respond independently to disturbances. When a country opens up its financial market to international capital flows, this point becomes more compelling. Monetary policy becomes a powerful instrument. A monetary expansion under floating exchange rates has much of its effect via the international channel a depreciation of the currency and the resulting stimulus to net foreign demand, supplementing the traditional channel of a lower real interest rate and resulting stimulus to domestic demand.

A seminal paper by Glick (2000) provides an argument in favour of a flexible exchange rate. At the macro level, flexible exchange rates allow a country to have an independent and discretionary monetary policy as a tool for responding to shocks, particularly to aggregate demand. In addition, flexible rates provide a faster and less costly adjustment mechanism to change relative prices, in response to shocks necessitating an adjustment in the real exchange rate, particularly when nominal goods prices change slowly.

A flexible exchange rate and discretionary monetary policy usually come at the cost of some loss of credibility that can lead to an inflation bias. At the microeconomic level, higher exchange rate variability creates uncertainty and discourages international trade and investment (Glick 2000). Also, a floating exchange rate regime has been found to come under speculative attacks, making the foreign exchange market more volatile. As a result, fluctuations in exchange rates have been larger than could be explained either by variations in inflation rates or by perceived structural changes among countries (Hossain and Chowdhury 1996).

¹² See for example Aghevli (1981) and Williamson (1982) for a discussion of these views.

The insulation property of a flexible exchange rate regime can also be questioned on three grounds (Hossain and Chowdhury 1996). First, developing countries experience domestic supply shocks such as crop failure, more often than external shocks. Second, sharp and continuous depreciations of domestic currency may be intolerable politically, making a floating exchange rate ineffective against external shocks. Third, if there is currency substitution, as one would expect in the absence of exchange controls, it is reasonable to believe that a rational holder of money balances will diversify his portfolio of currencies, and the dealers in foreign exchange in developing countries must have access to world currency and capital markets for a variety of monetary services, but the volatility of currency increases the risk of access to those markets. For Thailand, a study by Bird and Rajan (2001) argue that internationalisation of the financial system has contributed to financial crises for two reasons. Firstly, internationalisation of the financial system did increase the supply of foreign funds into the country. Secondly, capital account liberalisation did generate demand for bank credit in the domestic market. Thus, these two factors coupled with poor reform of domestic financial sector led the country into crisis.

It is argued that for a developing economy like Thailand, a managed floating regime is appropriate (Grossman and Stiglitz 1980; Stiglitz 1994, 2003). Also shadow price models can be adopted to determine the appropriate exchange rate (Chao and Yu 1995). These shadow price models should also incorporate underlying market conditions of the national and global economy. The initial exchange rate derived from the shadow price model should be adjusted according to the market, economic and institutional conditions which change over time.

Rusidy and Islam (2007) argue that for a developing economy, a managed floating regime with market adjustments is appropriate (Stiglitz 1994) and a shadow price model can be adopted to determine the initial appropriate exchange rate (Chao and Yu 1995) which should also incorporate underlying market conditions of the national and global economy. In this approach, the initial exchange rate derived on the basis of a shadow price model needs to be adjusted following developments and changes in the market, economic and institutional conditions of the economy.

2.5 Asymmetric Information

The new trend in international capital markets, namely globalisation, has made global investment more accessible to all investors (Frankel and Schmukler 1997). Mishkin (1997, 1999) argues that globalisation enables

funds to move from economic agents who lack productive opportunities to those who have such opportunities. In the light of an asymmetric view of financial crises, Mishkin (1992a, 1996, 1997) defines a financial crisis as 'a disruption to financial markets in which adverse selection and moral hazard problems become much worse, so that financial markets are unable to efficiently channel funds to those who have the most productive investment opportunities'. According to Mishkin (1997), asymmetric information leads to two basic problems in the financial system, they are adverse selection and moral hazard. The literature discussed in this section draws heavily from the study by Mishkin (1992a,b, 1996, 1997) and Aoki (1997). This section will present a review of asymmetric information theory and it proceeds in the following manner. Section 2.5.1 is an overview of the concept of asymmetric information. A literature review of adverse selection and moral hazard is provided in Sects. 2.5.2 and 2.5.3 respectively. Finally, Sect. 2.5.4 reviews the roles asymmetric information and financial crises.

2.5.1 Asymmetric Information: An Overview

Asymmetric information has been widely discussed in the finance and related literature (Frankel and Schmukler 1997). Some examples include Akerlof (1970), Grossman and Stiglitz (1980), French and Poterba (1991), Lang et al. (1992) and Gehrig (1993). Asymmetric information characterises a situation where for a given amount of information, one side of the market has better information than the other (Van-Ees and Garretsen 1993). Asymmetric information can lead to market, policy and institutional failures and incompatibilities (Grossman and Stiglitz 1980) given the underlying socio-economic conditions.

Frankel and Schmukler (1997) argue that asymmetric information can show up in different ways. First, domestic investors may have access to locally available information that foreign investors do not receive. Perhaps foreign investors can obtain the same information, but must bear an extra cost to get it. Second, foreign investors may have the same information, but interpret it in a different way. Third, there may be leaks in information which domestic investors are able to obtain first. Fourth, foreign fund holders might lack information on how the fund is being managed. Even though there is an information disadvantage, global investment may still look attractive as a consequence of high-expected returns and diversification benefits (especially from emerging markets).

Asymmetric information in financial markets creates two main problems known as adverse selection and moral hazard. In the case of adverse selection,

a ‘lemons problem’ arises if lenders cannot determine the quality of borrowers (Akerlof 1970). Lenders will only sign contracts that reflect the average quality of the pool of loan applicants. As a result, good borrowers are kept out of the market. In the case of moral hazard, a higher contractual rate of return induces lenders to undertake more risky investment projects. Hence, both adverse selection and incentive effects cause the mix of loan applicants to change adversely with an increase in the contractual rate of return on loans, which negatively affects the lenders’ profits (Van-Ees and Garretsen 1993). In essence, adverse selection and moral hazard in financial markets frequently derive from government regulation and informational obstacles that result in perverse incentives (Devaney 2000).

2.5.2 Theory of Adverse Selection

Adverse selection (hidden information) problems arise from the asymmetry of information about the riskiness of investment projects before investment occurs. Financial intermediaries may be able to cope with such problems by accumulating expertise in project evaluation and credit analysis (Aoki 1997).

Similarly, Mishkin (1997) argues that adverse selection is an asymmetric information problem that occurs before the transaction. This problem exists when the parties who are the most likely to produce an undesirable (adverse) outcome are the most likely to be selected for a loan. Borrowers who want to take on big risks are likely to be the most eager to take out a loan because they know that they are unlikely to pay it back. Since 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. According to Mishkin (1997), this outcome is a feature of the classic ‘lemons problem’ that was first introduced by Akerlof (1970).¹³

This paper by Akerlof analysed the market for used cars by applying his ‘lemons problem’ theory to illustrate the importance of informational asymmetries. The scenario is quite simple in that the seller of a used car usually knows more about it than the buyer does. They know, for instance, how well it runs on the highway, in the snow, when it's hot outside, and so on. The buyer knows relatively little. So if a seller offers to sell the car for, say, \$5,000, the buyer should be suspicious, since, if the car were worth

¹³ See Chap. 8 in Ivan (1998) and Chap. 17 in Pindyck and Rubinfeld (1998) for case studies and discussion of this view. Also see Chap. 8 in Mishkin (1992b) for a detailed discussion of adverse selection and the ‘lemons problem’.

more than 5,000, the owner would not be selling it at that price. In this case, Akerlof showed, the market may break down completely. In other words, he shows that when sellers know the true quality of a good, but buyers know only little about the quality, markets may not exist. Essentially, a buyer's best estimate of the quality of any individual seller's good is the market average, and sellers of high quality goods are unable to command a price consistent with the quality of their good. In long run, low quality drives out high quality until no market exists. This argument was later extended in a number of studies.

Genesove (1993) extends Akerlof's argument by allowing buyers to gain information concerning the 'types' of sellers in the market. He considers a buyer in search of a good apple. While only the seller is able to discern the true quality of apples, the buyer is able to distinguish between two distinct types of sellers: one who has a large orchard and hates apples and a second who has a small orchard and loves apples. From whom should he purchase? Obviously, the purchase should be made from the seller with the large orchard who hates apples. This seller takes all her apples to market, good and bad. The seller who loves apples is unlikely to take good apples to the market. The buyer can improve on the estimate of the average apple by incorporating information on seller type. If the market incorporates this information, the seller who hates apples will receive a premium for the sale of her apples.

Myers and Majluf (1984) and Greenwald et al. (1984) pointed out that a lemons problem occurs in debt and equity markets when lenders have trouble determining whether a borrower is a good risk (has good investment opportunities with low risk) or a bad risk (has poor investment opportunities with high risk). In this situation, a lender will only be willing to pay a price for securities that reflect the average quality of firms issuing the securities at a price below fair market value (the net present value of the expected income streams) for high-quality firms but above fair market value for low-quality firms. Owners or managers of high quality who know their quality also know that their securities are undervalued and will not want to sell them in the market. Low-quality firms, however, are willing sellers because they know that the price of their securities is greater than their value. Since asymmetric information prevents investors from determining the quality of firms, high-quality firms will issue few securities and credit markets will not work as well since many projects with a positive net present value will not be undertaken (Mishkin 1997). Several studies have examined markets where asymmetric information leads to price differentials based on seller type. Gibbons and Katz (1991) apply the model to post-displacement wages, finding that individuals displaced by layoffs earn lower wages in their next job than do individuals displaced by

plant closings. Greenwald and Glasspiegel (1983) examine historical data from pre-civil war slave auctions in New Orleans. Because of the different types of crops grown in the new and old South, similar slaves have a higher marginal value in the new South. Sellers bringing slaves from the old South to the new South are found to receive a premium over similar slaves sold by locals. Genesove (1993) is able to identify two seller types in auctions for new-car dealers and used-car dealers. It is expected that used-car dealers prefer to keep their best-used cars and take only their low-quality used cars to auction. New-car dealers are expected to receive a price premium for an otherwise similar used car. By regressing the final price of autos sold in the auction as function of seller type and controls for the visible characteristics of the auto, limited support for the hypothesis is found.

Stiglitz and Weiss (1981) demonstrated that information asymmetry can lead to credit rationing in which borrowers are arbitrarily denied loans (a public failure). This occurs because a higher interest rate leads to even greater adverse selection: the borrowers with the riskiest investment projects will now be the likeliest to want to take out loans at the higher interest rate. If the lender cannot discriminate who are the borrowers with the riskier investment projects, he may want to cut down the number of loans he makes, which causes the supply of loans to decrease with the higher interest rate rather than increase. Thus, even if there is an excess demand for loans, a higher interest rate will not be able to equilibrate the market because additional increases in the interest rate will only decrease the supply of loans and make the excess demand for loans increase even further. Indeed, Mankiw (1986) concluded that a small rise in the riskless interest rate can lead to a very large decrease in lending and even a possible collapse in the market.

2.5.3 Theory of Moral Hazard

Contrary to adverse selection, moral hazard is an asymmetric information problem that occurs after the transaction and when a principal commissions an agent to act on his behalf, but the agent engages in shirking, pursues self-interest to the detriment of the principal's interest, or indulges in dishonest or immoral behaviour (Mishkin 1997).¹⁴ Aoki (1997) refers to moral hazard as a hidden action problem arising because investors cannot distinguish the effects of events that management cannot control from the

¹⁴ See Chap. 17 in Pindyck and Rubinfeld (1998) for case studies and discussion of moral hazard.

effects of management actions taken in implementing an investment project. Financial intermediaries may be able to reduce these problems by monitoring management activities (interim monitoring). Moral hazard is a disposition on the part of individuals or organisations to engage in riskier behaviour, than they otherwise would, because of a tacit assumption that someone else will bear part or all of the costs and consequences if the incurred risk turns out badly (Wolf 1999). Moral hazard is defined in the economics literature as 'actions by economic agents in maximising their own utility to the detriment of others in situations where they do not bear the full consequences of their actions' (Ivan 1998; Pindyck and Rubinfeld 1999).

Moreover, moral hazard occurs because the borrower has incentives to invest in high-risk projects where the borrower does well if the project succeeds but the lender bears most of the loss if the project fails. The borrower also has incentives to misallocate funds for personal use, for instance, to undertake investment in unprofitable projects that increase the borrower's power or stature. The conflict of interest between borrower and lender, stemming from moral hazard or the agency problem, implies that many lenders will decide that they would rather not make loans, so that lending and investment will be at sub-optimal levels (Mishkin 1997).¹⁵ Sandmo (1999) and Wolf (1999) concluded that insurance is a major cause of moral hazard, where insurance companies have to realise that an insurance policy may change the behaviour of the insured in a way which makes the event covered by the insurance policy more likely to happen. For instance, fire insurance may make homeowners exercise less care to prevent fires, unemployment insurance may cause workers to exercise less care in holding on to their jobs. It is difficult for the insurance company to determine, once a fire has occurred, whether it was due to an exogenous event or to negligence. Another application of the concept is to agency problems, where agents enter into a contract requiring the agent to exert themselves in the best interests of a principle. The principle is only able to observe the result, and cannot determine the extent to which this is due to the agent's effort or to some exogenous cause. Similarly, Peake (2000) argues that moral hazard is where one party to a contract has an incentive to change behaviour after an agreement is reached. In automobile insurance, for instance, information on how carefully and defensively the

¹⁵ Mishkin (1997) argues that asymmetric information is not the only source of moral hazard. Moral hazard can also occur if high enforcement costs make it too costly for the lender to prevent moral hazard even when the lender is fully informed about the borrower's activities.

insured person drives is private information. Once the contract is entered, the insured no longer faces the prospect of financial loss and thus has less incentive to continue to drive carefully. This lack of incentive raises the potential costs to the insurer, who is unable to monitor the insured to determine whether or not the person is driving safely (Sandmo 1999; Wolf 1999; Peake 2000).

On the other hand, Arnott and Stiglitz (1988) advocate that moral hazard occurs whenever risk is present and a problem arises not only in insurance markets, but also for insurance provided by governments, through social institutions or in principal-agent contracts (institutional failures). The severity of the institutional failure depends on the nature of underlying socio economic conditions. In emerging/developing economy like the Thai economy, this problem can be more severe compared to a developed economy with efficient institutions and social structure.

Corsetti et al. (1999) stresses that moral hazard becomes a source of crises when there is over-investment, excessive external borrowing and current account deficits in a poorly supervised and regulated economy. According to Ely (1999), moral hazard leads to financial crises in three situations. First, bad management (poor internal control, self-dealing, bad lending and investment decisions, and excessively rapid expansion) is the main cause of isolated or non-contagious financial failures. Second, an economic contagion, almost always triggered by a decline in the market value of assets, causes the financial sector to fail when in normal economic times it would not. Third, government restrictions on asset and geographical risk dispersion limit the ability of individual banks or financial institutions to diversify their asset risk in order to protect themselves against contagious events such as a regional asset deflation made worse by asset fire sales. In effect, asset and branching restrictions magnify contagion losses by increasing the number of bank failures and financial crises.¹⁶

2.5.4 Financial Crises and Asymmetric Information

Financial crises and banking crises have become a worldwide phenomena occurring in both developed and developing countries. A number of studies (Mishkin 1991, 1996, 1999; Corsetti et al. 1998; Goldstein 1998) have used asymmetric information theory to explain financial and banking crises, and severe asymmetry problems caused by financial liberalisation, which were common in most recent crises in Mexico and Asia (Mishkin

¹⁶ See also Chap. 11 in Mishkin (1992b) for further discussion and case studies on moral hazard and financial crises.

2000).¹⁷ The root of the Mexican crisis in 1994 begins with financial reforms implemented by the administration of President Carlos Salinas in 1988, which led to a lending boom, over-investment and massive loan losses (Tower 1997). Bordo and Schwartz (1996) argue that when the liberalisation took place in the early 1990s, the expertise of the Mexican banks in managing financial inflows and making loans was very limited. For instance, there were no official credit bureaus to monitor loans to make sure borrowers were not taking on excessive risk. Mishkin (1996) found that loans to the private sector rose rapidly after liberalisation, from 10 per cent of GDP in 1996 to over 40% of GDP in 1994. This confirms that the Mexican financial crisis was a direct impact from asymmetric information problems. Lenders failed to distinguish between good and bad borrowers, resulting in heavy investment in risky and non-performing assets. Indeed, this led to deterioration in banks' balance sheets and further worsened asymmetric information problems, making the Mexican economy ripe for a serious financial crisis (Tower 1997). Finally, the crisis erupted at the end of 1994 and the government was forced to accept financial assistance from the US and the IMF.¹⁸

On the other hand, several studies (McKinnon and Pill 1997; World Bank 1998; Pilbeam 2001) agreed that the crises in Asia share a similarity with the earlier crisis in Mexico. One key factor stood out: financial liberalisation led to asymmetric information problems which worsened and caused deterioration in banks' balance sheets. Mishkin (2000) argues that there are two reasons why the deterioration of banks' balance sheets led East Asian countries into financial crisis. First, the deterioration in the balance sheets of banking firms led them to restrict their lending in order to improve capital ratios or even led to a full-scale banking crisis which forced the banks into insolvency, thereby directly removing the ability of the banking sector to make loans. Second, the deterioration in bank balance sheets can promote financial crisis because it makes it difficult for the central bank to defend its currency against a speculative attack. Any rise in interest rates to keep the currency from devaluating can harm the banking system, because the rise in interest rates occurs as a result of the maturity mismatch and exposure to increased credit risk when the economy deteriorates. In other words, the banking system may collapse if the central bank

¹⁷ See also Diaz-Alejandro (1985), Krugman (1998b), Radelet and Sachs (1998) and Kamin (1999).

¹⁸ Mexico received a total of US\$50 billion in an emergency package where US\$20 billion came from the US government and the rest from the IMF.

chooses to raise interest rates to defend its currency when speculative attack on the currency occurs. Once investors realise that a weak banking system makes it unlikely that the central bank will successfully defend the currency, this provides greater incentives for the investors to attack the currency because the anticipated profits from selling the currency will rise with each increase in interest rate.

Moreover, Pilbeam (2001) argues that financial liberalisation yields new lending opportunities as well as new opportunities for financial institutions to take on risk. McKinnon and Pill (1997) state that financial liberalisation results in excessive borrowing because it sends over-optimistic signals regarding the future economy to the non-bank private sector which increases loan applications to domestic banks who in turn increase lending expecting that they will be protected from risks by the government. Accordingly, the inflows (mostly in the form of lending) and credit extensions to the Asian countries grew at far higher rates than GDP (Corsetti et al. 1998). Johnson (1998) argues that lending to Asian countries after financial liberalisation expanded too rapidly, resulting in excessive risk taking which led to huge loans losses later. In his study, Goldstein (1998) found that the share of non-performing loans losses to total loans rose from 15 to 35% during 1993–1996. This led Siamwalla (2000) to conclude that a rapid increase of inflows at the time when the supervisory system was weak gave rise to problems of asymmetric information ending in financial crisis.

In addition, several studies (Tower 1997; Calomiris 1998; Johnson et al. 1998; Pilbeam 2001) argue that the Mexican bailout helped fuel the Asian crisis because international lenders thought the IMF would insulate them from losses if a crisis occurred. According to Meltzer (1998) and Vasquez (1999), one aspect of asymmetric information holds that the more governments or the IMF bail out institutions suffering from financial crises, the more lenders and borrowers are willing to engage in excessive lending and borrowing as they expect the government or the IMF will come to the rescue in the face of a crisis. Krugman (1998a) argues that with guaranteed liabilities, the owners of financial companies know that while they can earn the excess return in the good times, they can walk away from the institution at no personal cost in the case of bankruptcy. McKinnon and Pill (1997) state that financial liberalisation sends over-optimistic signals regarding the future economy to the non-bank private sector and because domestic banks expect that they will be protected from risks by the government, this results in excessive borrowing. In principle, government or IMF bailouts actually make crises more likely than if they did not intervene.

2.6 Summary

This chapter provides a review of the issues in financial liberalisation and crises, covering the sequence and order of financial liberalisation, capital controls, exchange rate policy and asymmetric information.

Having reviewed the above issues, we conclude that domestic financial reform needs to be considered first, and capital account liberalisation is best left to the last stage. Moreover, it is widely accepted that the appropriate sequence and order of liberalisation involves four steps: reduction of deficit, reform of finance and trade domestically, reforms to put in place the appropriate exchange rate policy, and finally liberalising the capital accounts. Capital controls are divided into two main types: controls of capital outflows and inflows. Controls of capital outflows, on one side, involve preventive controls that are applied when a country is facing fiscal deficit but not yet experiencing a crisis. On the other side, curative controls on capital outflows are applied when a country is already enduring a crisis. Controls on capital inflows are said to insulate a developing economy from financial crisis and also to provide extra time to correct monetary policy. According to the literature reviewed in this chapter, the choice between a fixed and flexible exchange regime varies from one country to another, depending on the nature of the economy, trade pattern of each country, monetary policy and degree of financial integration. On the one hand, some economists provide arguments in favour of a fixed exchange regime as it can result in economic expansion, increasing investments and lowering inflation. On the other hand, several studies argue that a flexible exchange rate provides more discipline and allows the country to have an independent monetary policy, avoiding external shocks and providing a faster adjustment process in response to the shocks. Finally, asymmetric information involves the theory of adverse selection and moral hazard. Major differences between these two branches of asymmetric information theory are that adverse selection is an asymmetric problem and causes an adverse decision before the investment takes place, while, moral hazard arises after the investment and is a problem of inability to distinguish the actions taken by an economic agent in implementing investment projects. In the light of financial crises, a number of studies concluded that financial liberalisation has further worsened the problem of asymmetric information. The two most recent crises in Mexico and Asia are prime examples. In both cases, financial crises occurred shortly after full financial liberalisation causing asymmetric information problems of excessive risk taking, lending booms, deterioration of banks' balance sheets and massive loans losses, which drove the countries into deep financial problems.

The next chapter is the last section of Part A (literature review) of this book. It portrays past actions taken by Thai authorities in introducing financial liberalisation. It provides a detailed discussion of strategies and frameworks in the early days of the financial liberalisation process. Firstly, it explores the developments and behaviours of Thailand's economy from early 1960 up to the period prior to financial liberalisation in the early 1990s. Secondly, a brief history of Thailand's economic growth is discussed. Thirdly, it surveys the influential factors behind Thailand's financial liberalisation. Finally, it presents an overall framework for financial liberalisation in Thailand.

International Finance in Emerging Markets
Issues, Welfare Economics Analyses and Policy
Implications

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2008, XII, 226 p., Hardcover

ISBN: 978-3-7908-2043-0

A product of Physica-Verlag Heidelberg