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Financial Repression

Despite the contributions that an efficient financial system can make to economic welfare and growth, many developing countries have traditionally applied a combination of policies toward the financial sector that has impeded the functioning of their domestic financial systems. This policy package has become known as "financial repression." This chapter will describe this set of policies, and consider how they affect the functioning of the financial system, as well as how they may impinge on each of the channels through which the financial system can promote growth. We will also review some of the evidence on the growth effects of financial repression in developing countries. As we will see, a substantial amount of evidence has accumulated in various forms during recent years suggesting that financial repression has had harmful effects on economic growth.

In part because of this evidence, the view that financial repression is harmful for growth has carried the day among policymakers in emerging markets, and most emerging economies are in the process of revamping their policies toward the financial sector, a process known as financial liberalization. But this process has not proven to be an easy one. We will examine it in detail in the next chapter. As we will see there, a key question is what conditions have to be in place in the domestic economy in order for a liberalization of the domestic financial system to have a chance of being successful.

To answer this question, we have to consider why financial repression may have existed in the first place – what economic role financial repression plays in the domestic economy. This chapter will argue that the central motivation for financial repression has at bottom been a fiscal one. In effect, governments have relied on implicit taxation of the financial sector in part because of their difficulties in raising the resources they required through more conventional means.

This fiscal role of financial repression links this part of the book with the previous one. Just as the excessive reliance on seignorage or the emergence of a debt overhang reflects fiscal difficulties, placing an excessive burden of implicit taxation

on the domestic financial sector can be viewed as yet another consequence of fiscal problems in emerging economies. In this chapter we will describe the fiscal effects of financial repression as well as techniques for the empirical measurement of the fiscal revenues derived from this set of policies toward the domestic financial sector.

I. THE INGREDIENTS OF FINANCIAL REPRESSION

We saw in Chapter 11 that in the early stages of financial development, commercial banks are likely to be the dominant domestic financial institutions, because of their comparative advantage in overcoming credit market imperfections. We also saw that the role of collateral in overcoming moral hazard problems, and of a well-functioning legal system in facilitating the enforcement of contracts, make formal financial institutions such as banks heavily dependent on the legal system. This dependence on the legal system makes formal banking activity highly visible to governments, and makes banks relatively easy to tax. Historically, developing-country governments have tended to tax the banking system both directly and indirectly. Indirect taxation has been levied through the mechanism of financial repression.

The set of policies characterized as financial repression includes the following:

i. *Controls of capital inflows and outflows.* Under financial repression, domestic residents are typically not allowed to hold foreign assets, and domestic firms are not permitted to borrow abroad. The implication is that financially repressed economies are typically characterized by financial autarky, and that foreign intermediaries cannot compete with the domestic financial industry. Thus, under financial repression we can think of the domestic financial sector as operating in conditions similar to those of any other domestic productive activity that is insulated from external competition through a system of prohibitive tariffs or quantitative restrictions.

ii. *Restrictions on entry into the formal financial sector.* Under financial repression, the domestic formal financial sector is not subject to free entry and exit, and many domestic banks may be publicly owned. These two conditions imply that the domestic financial sector does not typically operate under competitive conditions. Indeed, repressed banking sectors are typically dominated by a few banks, the largest of which are government-owned.[1]

iii. *High reserve and liquidity requirements on banks.* Banks are required to keep high reserve ratios, either as vault cash or on deposit with the central banks, and such deposits typically do not earn interest. In addition, they may be required to maintain "liquidity" ratios in the form of government securities which, though they pay interest, typically yield a return much lower than would be required for banks to choose to hold them voluntarily. Through both mechanisms, banks pay

[1] The appendix to Chapter 10 illustrates this situation in several African countries.

an implicit tax and lose the freedom to allocate a large share of their portfolios to productive loans.

iv. *Interest rate ceilings on bank assets and liabilities.* The interest rates that banks can pay on deposits, and that they can charge for their loans, are legally controlled in repressed financial systems. This means that banks cannot compete with each other on price, and cannot raise deposit rates in order to compete with nonbank intermediaries (informal financial markets or illegal capital flight) for resources. On the other side of their balance sheets, if interest rate ceilings on loans are binding, banks cannot allocate their loans on the basis of price, and are thus forced to engage in nonprice rationing of credit.

v. *Directed-credit restrictions on the composition of bank asset portfolios.* In addition to having to set aside a substantial portion of their portfolios as required reserves and to meet liquidity requirements, banks often have limited discretion over the allocation of their remaining funds, since they are typically forced to set aside designated shares of their lending portfolios for "priority" sectors or specific classes of firms, sometimes at preferential interest rates.

vi. *The use of bank credit ceilings as instruments of monetary control.* Under the circumstances described above, monetary policy has often been conducted by setting overall targets for total credit expansion by the domestic banking system, and then allocating this total among individual banks, thus restricting the amount of total credit that can be extended by each bank.

This set of policies obviously represents a severe set of restrictions on the entire process of domestic financial intermediation. It circumscribes the behavior of domestic borrowers and lenders, the number of firms that can engage in financial intermediation, as well as the behavior of firms that are already so engaged. In view of the important role of the domestic financial system in mobilizing and allocating resources described in the last chapter, the questions raised by such policies are what their implications for the functioning of the domestic economy might be, and why such a set of policies would be adopted in the first place.

From an economist's perspective, restrictions on financial intermediation such as those included in this package of policies would seem to preclude mutually advantageous trade in a variety of ways, and would thus be presumed to have adverse effects on economic welfare. It is hard to see how, under such tight restrictions on behavior, the domestic financial sector would retain the incentive and flexibility to respond to profit opportunities created by changes in the economic environment in a way that would have the effect of lowering the external finance premium. As we saw in the last chapter, this is the mechanism that drives financial development, and that enables the process of financial development to enhance economic welfare and facilitate economic growth.

It would be inappropriate to jump to this conclusion too readily, however, because imperfections in credit markets such as those described in the previous

chapter suggest that *laissez faire* is not the appropriate standard of comparison to use in evaluating policies directed at the domestic financial system. These credit market imperfections may create a valid role for some types of government interventions in the domestic financial system. However, as we also saw in the last chapter, the interventions called for are those that address those imperfections directly. That is, the fact that *some* types of intervention may be justified by market imperfections does not mean that *any* intervention is justified. In the next chapter we will look in much more detail at precisely what types of interventions may make sense in light of the credit market imperfections that we have discussed.

As it happens, however, financial repression has *not* typically been motivated by the desire to address the problems created by credit market imperfections for the process of financial intermediation, and thus there is no particular reason to believe that such policies would tend to improve the functioning of the domestic financial system in light of credit market imperfections. In Section III, we will review the arguments for the view that the policies associated with financial repression indeed do substantial economic harm, and will also examine some of the empirical evidence on this issue. Before doing so, however, we need to ask: if financial repression has not typically been directed at the amelioration of the effects of credit market imperfections, and if such policies may indeed be harmful, then why have they been adopted?

II. FISCAL ROOTS OF FINANCIAL REPRESSION

In this section we will argue that the key reasons have been *fiscal* in origin. Financial repression affects both the expenditure and financing sides of the public sector's budget. It permits the nonfinancial public sector to engage in industrial policies (i.e., to favor some economic activities over other) without the expenditure of fiscal resources, and to borrow more cheaply than it could otherwise do. How does this work?

a. Financial Repression as a Fiscal Phenomenon

One way to view the set of policies that constitute financial repression is as follows: the restrictions on the behavior of bank customers and potential competitors (capital account restrictions and restrictions on entry into the domestic financial sector) have the effect of creating monopoly rents for the existing banks. Some portion of these rents is then effectively taxed away by the government through the restrictions that repression imposes on the behavior of the "protected" banks themselves.

For example, restrictions on capital inflows and outflows insulate the domestic financial system from external competition. Restrictions on capital outflows prevent the public from taking their savings abroad, thus creating a captive demand for the liabilities of the domestic financial system, while restrictions on inflows

create a captive market for domestic bank loans. In effect, they make the demand curves for bank assets and liabilities less elastic by eliminating access to close substitute sources of funds as well as substitute saving vehicles. Restrictions on entry into the domestic financial industry, on the other hand, allow domestic banks to collude, thus exploiting their collective monopoly position in domestic financial intermediation.

The result of these restrictions is to create large potential wedges between bank borrowing and lending rates. Under financial repression, however, a substantial portion of this wedge is captured by the government, rather than by the banks themselves. How does this work?

i. High reserve and liquidity requirements create an artificially high demand from domestic banks for the high-powered money issued by the public sector and for public sector securities. The former increases the base on which the public sector collects seignorage revenue, while the latter reduces the interest rate that the public sector must pay on its securities, thus lowering its borrowing costs through the issuance of securities.
ii. Interest rate ceilings on loans directly reduce the cost for the nonfinancial public sector to borrow in the form of bank credit and advances from private banks.
iii. Directed credit policies permit the government to engage in industrial policy – that is, to favor specific economic activities over others – by granting them access to credit at subsidized rates, rather than by paying them explicit subsidies that would need to be financed through the public sector's budget.

b. Financial Repression and Seignorage

To see how the first of these channels operates, we need to modify the public sector solvency analysis of Part 3 of the book to take into account the existence of banks. Recall that the analysis of seignorage issues was based on a financial structure in which the central bank issued currency that was held by the public directly, and the public sector issued securities that were sold in an open market. In that context, seignorage revenue was given by $(\pi + g)m$, where m was the stock of central bank liabilities. In Part 3, central bank liabilities were equated with the money stock. However, when banks are accounted for, the two concepts are no longer equivalent. Central bank liabilities are referred to as the *monetary base*, or *high-powered money* (call it H, so m would be replaced above by $h = H/PY$). The central bank's balance sheet thus becomes:

$$sR^* + DC = H. \tag{12.1}$$

Money, on the other hand, consists of currency held by the public plus demand deposits (checking account balances at banks). The latter are the liabilities not of the

central bank, but of the commercial banks. The conceptual basis for this definition of money is that it consists of all assets that can be used directly to make payments. It is sometimes called *narrow money*, or $M1$, to distinguish it from definitions that also include assets that can easily be converted into means of payment.

What is the relationship between money defined this way and the monetary base? As we have already noted, commercial banks typically have to hold some fraction (call it RR_D) of their deposits as reserves. These can be held in the form of currency (a central bank liability) or deposits at the central bank (which are, of course, also central bank liabilities). Thus, total central bank liabilities H consist of currency held by the public (call this CU) plus commercial bank reserves:

$$H = CU + RR_D DD, \tag{12.2}$$

where DD is total demand deposits. Money, on the other hand, is given by:

$$M = CU + DD. \tag{12.3}$$

To see what impact financial repression has on H (and thus on h and on seignorage revenue $[\pi + g]h$), we need to examine how it affects the demand for H, a simple form of which is given by equation (12.2). To inject more realism into the analysis, we need to take into account that other types of deposits are also subject to reserve requirements. Including reserve requirements on time deposits (savings accounts), for example, makes the demand for H:

$$H = CU + RR_D DD + RR_T TD, \tag{12.4}$$

where TD is the stock of time deposits. Now all we need to do is to specify the demands for CU, DD, and TD. To be concrete, consider the following asset-demand model:[2]

$$CU/PY = \underset{- \; - \; -}{f_C(\pi, i_D, i_T)} \tag{12.5a}$$

$$DD/PY = \underset{- \; + \; -}{f_D(\pi, i_D, i_T)} \tag{12.5b}$$

$$TD/PY = \underset{- \; - \; +}{f_T(\pi, i_D, i_T)}, \tag{12.5c}$$

where i_D and i_T are interest rates paid by banks on demand and time deposits respectively. These are standard portfolio demands similar to the ones we used earlier in the model of Part 2. Inflation is assumed to reduce the demand for all nominal financial assets. On the other hand, an increase in its own rate of return increases the demand for each asset, while an increase in the rate of return on a substitute

[2] The model is from Anand and Van Wijnbergen (1989).

asset reduces that demand. Substituting these asset demands into equation (12.2) we now have:

$$H = \underset{- \ - \ -}{f_C(\pi, i_D, i_T)}PY + RR_D \underset{- \ + \ -}{f_D(\pi, i_D, i_T)}PY + RR_T \underset{- \ - \ +}{f_T(\pi, i_D, i_T)}PY. \qquad (12.6)$$

Now we can see what happens to H under financial repression. Recall that under financial repression RR_D and RR_T would both tend to be high, while i_D and i_T would both be low. Thus:

i. An increase in either reserve ratio would increase the demand for H, given the values of the other variables.
ii. A reduction in i_T would tend to *reduce* the demand for H through the last term on the right (because it reduces the demand for time deposits), but to *increase* it through the first two terms (the demands for currency and demand deposits). What is the net effect? In principle, the effect is ambiguous. It depends on whether time deposits are better substitutes for assets held inside or outside the formal financial system. What might the latter consist of? Recalling the model of Part 2, the answer is primarily foreign assets, not included in the reformulation above. But this is precisely what capital controls prevent from happening. Thus, with capital controls in place, reductions in ^{i}TD would be likely to go primarily into CU and DD. Given that CU has an implicit reserve requirement of unity (to hold a unit of currency one has to hold a unit of high-powered money), H would tend to rise.
iii. A reduction in i_D would reduce demand for DD and thus indirectly for H, but because demand deposits are transactions balances, these funds would likely go into the other asset that can be used as a means of payment, namely CU, which carries a higher reserve requirement. Again, the demand for H would rise if currency and demand deposits are close substitutes.

The conclusion is that high values of RR_D and RR_T, as well as low values of i_D and i_T, all of which are associated with financial repression, would be conducive to higher values of H and thus to high values of seignorage revenue $(\pi + g)h$, for a given rate of inflation π.

c. Fiscal Revenues from Financial Repression

The second mechanism through which the government receives revenues from financial repression is through a reduction in its borrowing costs, either through lower interest rates on bank credit than would prevail otherwise or through mandatory holdings of government securities by domestic financial institutions. Since these securities are not held willingly, they must pay a lower interest rate than would be required for banks to hold them voluntarily. Giovannini and de Melo (1993)

Table 12.1. *Financial Repression Tax Revenue in 24 Countries*

	Tax Revenue as Percent of GDP	Tax Revenue as Percent of Total Tax Revenue	Implicit Tax Rate
Algeria	4.30	11.42	10.6
Brazil	0.48	1.57	13.4
Colombia	0.24	2.11	22.4
Costa Rica	2.33	12.76	25.1
Greece	2.53	7.76	16.0
India	2.86	22.38	11.0
Indonesia	0.00	0.00	0.0
Jamaica	1.38	4.74	7.4
Jordan	0.60	2.40	7.2
Korea	0.25	1.36	6.0
Malaysia	0.12	0.31	0.5
Mexico	5.77	39.65	45.8
Morocco	2.31	8.89	16.1
Pakistan	3.23	20.50	25.3
Panama	0.69	2.49	4.4
Papua New Guinea	0.40	1.90	5.6
Philippines	0.45	3.88	11.9
Portugal	2.22	6.93	15.8
Sri Lanka	3.40	19.24	14.5
Thailand	0.38	2.57	4.3
Tunisia	1.49	4.79	13.4
Turkey	2.20	10.89	55.8
Zaire	0.46	2.48	54.5
Zimbabwe	5.52	19.13	19.5

Source: Giovannini and de Melo 1993.

have recently estimated the magnitude of the revenues derived from this source for a sample of twenty-four developing countries during the period 1972–87. They estimated it by taking the difference between the *ex post* cost to the government of borrowing abroad (including capital gains or losses arising from exchange rate changes) and its cost of borrowing domestically in the same period, multiplied by the average stock of domestic debt held by the private sector in that period.

The estimates of financial repression tax revenues derived by Giovannini and de Melo are presented in Table 12.1. As is evident from the fourth column of the table, the implicit financial repression tax rate (the difference between the foreign and domestic interest rates, as a percentage of the former) is very high in some countries, with the implication that, when domestic debt outstanding is also high, the financial repression tax can loom large compared to conventional sources of government revenue (shown in the third column). On the average, for the countries in this sample the financial repression tax amounted to about 2 percent of GDP and about 9 percent of tax revenue. Thus, the magnitudes involved can be quite substantial.

Chamley and Honohan (1990) estimated a broader concept of the magnitude of taxation of the financial sector, including not just the implicit tax on the interest rate on domestic government securities, but also the inflation tax, the implicit tax on required reserves imposed by the fact that these reserves are remunerated at less than market rates, the implicit tax imposed by loan interest rate ceilings, and indirect taxes on the financial sector. They calculated the inflation tax as the product of the inflation rate and the stock of currency in the hands of the public, the implicit tax on required reserves as the gap between an estimated market interest rate and the rate of remuneration on reserves (usually zero) times the stock of reserves, the implicit tax on government borrowing as the gap between market interest rate and the interest rate actually paid on government debt, and the implicit tax on lending to nongovernment borrowers as the gap between an estimated market interest rate and the controlled loan rate. They also took into account indirect taxes on financial intermediaries. Thus, they estimated the volume of resources extracted from the financial system by using the following formula:

$$TAX = (R^* - 0.01)^* CURRENCY + (R^* - RRES)^* RESERVES + (R^* - RTB)^* GOVTBOR + (R^* - RTB + MARGIN)^* NONGOVTBOR + INDIRECT\ TAXES$$

Here R^* is an estimate of the market-clearing risk-free interest rate that would prevail without interest rate ceilings, *RRES* is the rate of remuneration on reserves, *RTB* is the bank lending rate, *MARGIN* is an assumed risk premium for private borrowers, and *GOVTBOR* and *NONGOVTBOR* are the stocks of loans outstanding to the government and nongovernment sectors, respectively. They used several methods for estimating "shadow" market interest rates, including the rate on foreign borrowing (as in Giovannini and de Melo) and a nominal rate calculated by adding an assumed real interest rate of 1 percent to the observed rate of inflation.

Chamley and Honohan calculated tax rates for five African countries during the decade 1978–88. Their findings were similar to those of Giovannini and de Melo. Specifically, they found that the taxes on the formal financial sector that they measured were in the range of 4–7 percent of GDP for Ghana, Nigeria, and Zambia during this period, and in the range of 2 percent of GDP for Cote D'Ivoire and Kenya, compared with explicit tax revenue in the range of 10–25 percent of GDP for most Sub-Saharan African countries. Most importantly, they found that the average tax collected was in all cases greater than the value added of the banking system, and in the case of the three high-tax countries, was a multiple of banking system value added, even after excluding seignorage on currency in the hands of the public, a portion of taxation that does not fall on banks. These findings led them to conclude that the financial sector has been very heavily taxed compared with other sectors.

These results are supported by those of Ikhide (1992), who focused only on implicit taxation in the form of unremunerated reserve requirements in eight

Sub-Saharan African countries. He found that such reserves were significantly higher in the eight countries in his sample than is typical in OECD countries, and that the implicit tax on the financial sector just from this source ranged from about 1.5 percent of GDP in Tanzania to about 7.5 percent in Ethiopia. In five of the eight countries he examined, this amounted to more than a quarter of government revenue.

III. FINANCIAL REPRESSION AND GROWTH

We saw in Chapter 11 that economic theory gives us reason to believe that an efficient domestic financial system can help to promote economic growth by improving the efficiency of resource allocation, by freeing up resources that would otherwise be used in intermediation to produce other goods and services, and by encouraging accumulation through the higher rates of return that such a system could offer to domestic savers. The empirical evidence reviewed in Chapter 11 was consistent with the proposition that financial depth is conducive to faster economic growth. In this section we will review what theory and evidence have to say about the effects of financial repression on economic growth.

a. Financial Repression and Growth: Theory

To analyze the effects of financial repression on growth suggested by economic theory, we can go back to the small growth model that we used in the last chapter. Recall that in that model, the growth rate of productive capacity could be expressed as:

$$\Delta Y/Y = A\sigma s,$$

where A was a measure of total factor productivity, σ was an indicator of the efficiency of the financial system (in the sense of resources used by the sector), and s measured the ratio of saving to GDP. How are each of these components likely to be affected by the policies associated with financial repression?

1. Effects on Efficiency of Allocation

i. *Restrictions on competition* may impair allocative efficiency because state-owned and -protected banks will not have the competitive incentives to screen and monitor borrowers closely.

ii. The appropriation of funds by the public sector through the maintenance of high reserve requirements means that a portion of household saving will be channeled into government spending. To the extent that the government consumes these resources, σ will fall. To the extent that they are invested in public capital, the

associated projects may not yield returns in excess of the foregone investment in the private sector.

iii. *Interest rate ceilings* on loans prevent the system from allocating capital to the most productive uses. Whether interest rates are controlled at below-market levels or not, banks have to screen prospective credit applicants. Interest rate ceilings prevent price-based allocation of funds (i.e., the weeding out of unproductive projects because they cannot yield a rate of return high enough to service the debt accumulated in financing them), leading to credit rationing, which may result in funds being allocated according to arbitrary criteria by individual banks. Moreover, low interest rates in the formal financial system are likely to create an informal financial market. When formal and informal financial markets coexist and some firms have unlimited access to the formal market, the marginal product of capital in these "favored" firms will fall below the cost of borrowing in the informal system. Capital may thus be misallocated both among firms that have access to the formal market, and between firms that have access to that market and those that do not.

iv. *Interest rate ceilings on deposits* may also cause funds to be misallocated through disintermediation – that is, by misallocating funds between the formal financial system and other types of financial intermediation. Their effect is to channel domestic saving into relatively unproductive investment by the savers themselves, into the informal financial system, or abroad.

v. The use of *directed credit* forces institutions to lend to projects that may not meet a market test, in other words, to those that may yield lower rates of return than alternative activities.

vi. Finally, the use of *bank credit ceilings* as an instrument of monetary control also reduces the efficiency of capital allocation, by misallocating funds among banks. Ceilings on individual banks, applied uniformly, prevent lending from being reallocated to the banks that have the most productive investment opportunities available to them.

Because all of these policies would tend to allocate resources in ways that fail to maximize social returns, we would expect their presence to result in a reduced value of total factor productivity in the economy.

2. Effects on the Costs of Intermediation

i. Restrictions on *capital flows* as well as restrictions on *entry* limit the scope of competition in the formal financial system, removing an important incentive to reduce costs. This tends to divert to factors of production employed in the formal financial system resources that would otherwise have been intended for investment.

ii. Measures such as *directed credit*, or the *imposition of reserve and liquidity requirements*, in addition to distorting the allocation of funds, function like a tax on

financial intermediaries. This diverts resources to the government that would otherwise have been intended for investment.

iii. Policies such as *ceilings on deposit interest rates* or *credit ceilings on individual banks*, that reduce the rates of return offered to domestic savers in the domestic formal financial system and thus reduce the *scale* of formal domestic financial intermediation, compressing the size of the domestic financial system, tend to limit the size of scale economies, as well as to channel funds through the informal sector, which may be less efficient due to smaller economies of scale and scope. Both of these thus increase the costs of operating the domestic financial system.

3. Effects Through Returns to Accumulation

Finally, with a less efficient allocation of funds and higher costs of operation, the formal financial system would be forced to offer a lower return to savers under financial repression, even if deposit interest rate ceilings were not binding. In terms of the growth model, this may show up as a reduction in s (if savers respond to the lower rates of return available to them by saving less).

Recall that these channels of influence are not independent. In the basic model described above, for example, the adverse consequences of costs of financial intermediation for the growth rate depend on the volume of resources to be intermediated (s), as well as on the productivity of the investment foregone (A).

b. Financial Repression and Growth: Evidence

There is a substantial body of evidence examining the growth effects of financial repression. One strand of this evidence takes the cross-country approach that has become familiar from previous applications in this book. The methodology essentially involves estimating the determinants of capacity growth using a cross-country sample, and testing for the independent effects of financial repression after controlling for other growth determinants. For example, Roubini and Sala-i-Martin (1992) use a real interest rate dummy, the reserve ratio, and inflation as indicators of financial repression. They control for the standard Barro-type growth determinants in cross-country regressions, and test to see whether their proxies for financial repression enter the equation with the expected sign and with precisely estimated coefficients. They find that all of their indicators of financial repression were negatively and significantly related to growth in their cross-country study.

There is also substantial case study evidence on this issue, much of it focusing on the experience of countries that have liberalized previously repressed financial systems. Unfortunately, because this research of necessity adopts a before-and-after methodology, failing to control for other determinants, it has proven to be controversial and inconclusive.

IV. FINANCIAL REPRESSION IN THE "MIRACLE" ASIAN ECONOMIES

Theory and cross-country evidence thus lead us to the conclusion that financial repression is harmful for economic growth. And indeed, the financial sectors of many low-income countries have suffered from financial repression for a long time. However, matters are not quite so straightforward, because financial repression has not just been evident in countries that have been unsuccessful in sustaining extended periods of rapid economic growth. Some of the most successful economies in the world – the "miracle" economies of East and Southeast Asia – have also pursued financial sector policies that have many of the characteristics of financial repression. A handful of dynamic economies in this region have achieved what many other developing economies have sought: rapid, equitable, and reasonably stable growth sustained for long periods of time. Before leaving the topic of financial repression, then, it is worth asking the question: if financial repression is so harmful for growth, and if these countries have indeed repressed their financial systems, how did they manage to grow so fast?

Understanding the contributions of policy to generating the "East Asia miracle" has long been a high priority for development economists. The interpretation of the experience of these countries, however, has been fraught with controversy. Among the unsettled issues, we know that these countries have attained remarkable levels of saving and investment, but do not know exactly how, and economists disagree about the contribution that gains in total factor productivity have made to East Asian growth performance. The role of the financial system is central to both phenomena since, as we have seen, it both provides the incentives for private agents to accumulate and allocates saving among competing investment opportunities. Here too, however, lessons from the experience of East Asia have not been easy to distill. Specifically, to what extent can East Asia's accumulation and productivity performances be related to the financial policies pursued by these countries? Does the experience of the East Asian countries confirm the virtues or the vices of financial repression?

a. Financial Policies in the Asian "Miracle" Economies

Japan was, of course, the first spectacularly successful economy in East Asia, followed by the "four tigers" of Korea, Taiwan, and the two city states of Hong Kong and Singapore. Because of Japan's leadership position, it is useful to briefly review the role of the financial sector during Japan's economic take-off before considering its common elements with the financial policies of other countries in the region.

The Japanese financial system was restructured in 1950–55. The goal of the restructuring was essentially to organize the system so as to support the

government's industrial policies. Parts of the system were oriented to providing long-term finance so as to encourage firms' taking advantage of dynamic economies of scale and to provide industrial infrastructure, while other parts were focused on combating unemployment by lending to traditional and low-productivity sectors (such as declining industries) and to support small firms, all while safeguarding the stability of the financial system itself. An important part of the new system was policy-based lending through the Trust Bureau of the Ministry of Finance, which managed the funds raised by the postal savings system. The latter had over 20,000 branches throughout the country. The growing modern sector of the economy was financed by the private financial system, while the declining traditional system was financed through the government at regulated rates.

Japan's private financial system was dominated by banks. Limitations were placed on the development of securities issues and secondary securities markets. Bond issuance was limited to government enterprises, public utilities, and a few other selected corporations, and bonds were sold through negotiation, rather than competitive bidding. The domestic securities market was thus underdeveloped, with a limited role for direct lending. Restrictions on foreign capital inflows and outflows were in place throughout Japan's rapid growth period.

Markets for banking services in Japan were legally segmented (both functionally and geographically), since financial institutions were specialized by type and size of borrower as well as depositor. A small number of large wholesale banks were nationwide in scope, and dealt with governments as well as large corporations. None of these banks were controlled by private shareholders. Smaller banks served local and regional markets. The system contained both private and government-owned banks, and their number remained roughly stable for the subsequent forty years. Specialized institutions grew up or were created to serve small family businesses and agriculture, while governments created specialized institutions to serve exporters and priority sectors. Nationwide banks were limited as to the number of branches they could open, so markets for banking services were segmented geographically as well.

Commercial banks have also dominated the financial systems of Korea and Taiwan.[3] Bond and equity markets were thus underdeveloped in all three of these "miracle" economies. As in Japan, these markets tended to follow, rather than lead, the economic take-off in Korea and Taiwan. Also as in Japan, during most of the period of rapid economic growth in each of these countries the number of major banks was small, entry into the banking sector was restricted, and the capital account of the balance of payments was relatively closed. In all three countries the ownership of banks was widely dispersed among industrial enterprises, other domestic institutions, and individuals. In Japan they were controlled by managers, and in

[3] For a description of the financial systems in these economies, see Patrick and Park (1994).

Korea by the government. In Taiwan until 1991 the major banks were owned and controlled by the government, while four smaller commercial banks were owned by private individuals.

Interest rates were controlled in all of these countries, with large margins between borrowing and lending rates. Though financial repression in the form of interest rate ceilings was not as severe in these "miracle" economies as in many other developing countries, it was severe enough that all three countries at one time had (and Korea and Taiwan still have) flourishing informal markets. In Japan, the formal system displaced a previously existing informal system, while in Korea and Taiwan the informal system survived in parallel with the formal system, as a consequence of financial repression.

Directed credit was an important component of government policy in these economies. All three countries used the financial system to encourage exports and to promote specific sectors in the context of their industrial policies. However, the application of directed credit policies varied among these countries. In Korea, for example, credit policy involved much heavier subsidization than in Japan. Commercial banks had been nationalized in Korea during the early 1960s, and the central bank law was changed to make it subordinate to the government. Both commercial as well as development banks were owned by the government and were involved in the administration of directed credit, responding to government directives to channel funds to priority sectors. Though controlled interest rates were doubled in 1965, this may have served primarily to transfer funds from informal markets to the banks and thus to increase the Korean government's control over credit allocation. In the 1960s, these credit allocations were directed at promoting exports, without much sectoral bias, and the performance of supported firms was closely monitored. In the 1970s, however, policy-based lending switched to supporting the "heavy and chemical industries" industrialization drive, and in the 1980s to supporting declining industries, as in Japan. Policy loans amounted to about 60 percent of assets for deposit money banks throughout the period, and mainly went to the manufacturing sector. Unlike Japan, Korea depended heavily on central bank credit and bank deposits for mobilizing funds. In Japan, government sources of funds dominated, and foreign loans were also very important, but the latter were also allocated by the government.

As in Japan, banks were closely supervised in Korea and Taiwan. However, bank regulation tended to be concerned primarily with the safety of the system. Stability was achieved through limitations on competition, and cartel-like behavior among banks was not discouraged. Prudential supervision was inadequate by the standards of fully liberalized systems. Because public disclosure was required only of the small number of firms listed on stock exchanges and the reliability of financial data available even to insiders of private unlisted companies was questionable, banks typically required loans to be heavily collateralized by real assets, and problems of assessing creditworthiness led to the prevalence of "relationship" banking in all three countries. Though legal deposit insurance was not present during the high-growth

period in any of these economies, the banking system was perceived as implicitly insured by the government. In short, all three countries have had very safe but not very competitive systems. In spite of this, portfolio allocation has traditionally been very risk-averse and, especially in the case of Taiwan, overly concerned with collateral. Bank failures were minimal until the second half of the 1990s.

b. Financial Repression and Growth in East Asia: Hypotheses

Financial repression and directed credit thus appear to have been an important part of the story in three of the most successful East Asian economies. These characteristics do not seem to suggest that the financial systems in these countries would have been a key force driving either high saving rates (by offering attractive returns) or high rates of growth of productivity (by allocating resources to dynamic sectors on the basis of market criteria). What does the evidence tell us about the role of financial sector policies in the growth experience of these countries? In particular, did the "miracle" economies of Asia grow as fast as they did *despite* or *because* of financial repression?

The argument that they did so *despite* financial repression would go as follows: though financial repression is generally harmful and was actually harmful in these economies, it was not *very* harmful. The countries did not actually have the institutional mechanisms in place to operate a liberalized financial system (what these are is discussed in Chapter 13), and given that constraint, because of the way that repression was managed in these countries, they might actually have been better off with repressed systems than with liberalized ones. The aspects of the way that financial repression was managed that reduced its costs were the following:

i. Financial repression was mild because the stable macroeconomic environment (low inflation) and competitive real exchange rate kept the gap between the controlled and market-clearing interest rates small, so savers did not face excessively distorted real interest rates. The World Bank (1993), for example, emphasized that financial repression in the "miracle" economies differed from that elsewhere in that it was moderate, without very negative real interest rates, it was undertaken in context of financial stability rather than as the unintended consequence of rapid inflation, and in that bank regulators tended to squeeze spreads, ensuring that low deposit rates were passed on to borrowers.
ii. The system emphasized security of financial institutions, which may have been as important to savers as rates of return.
iii. A relatively small share of credit was influenced by policy-based lending (except for Korea).

Moreover, directed credit policies discouraged lending for consumption (which encouraged saving) and encouraged lending based on market-friendly performance

criteria (exports), which enhanced productivity. Systems in Japan, Korea, and Taiwan channeled resources into infrastructure and productive business uses, and away from housing and consumer credit. By restricting credit to households and small firms due to the extreme risk aversion of managers of financial institutions, it may have indirectly stimulated saving by such agents. In addition, by allocating credit on the basis of export performance (in response to government directives), the regime was indirectly using a market-based test which may have particularly favored the most competitive and dynamic activities.

The argument that these countries grew fast *because* of financial repression is really a variation on the previous one that places much more emphasis on the positive contribution that may have been made to economic growth by the specific industrial policies that these countries implemented through the use of directed credit. It has two parts:

i. Liberalization would have been harmful, given the domestic institutional constraints, as mentioned above, and:
ii. Industrial policy was growth-promoting, because of the role of dynamic scale economies, and policy-based lending was a superior way of implementing it.

The second point is what really distinguishes the second interpretation from the first. Since the countries grew so quickly, the question is whether the way that directed credit was managed in these economies minimized the harm it might conceivably have done, or whether it was actually a key ingredient of these economies' success.

This point has two components: that industrial policies were productive, and that directed credit was a good way to implement them. As to the first, the case for industrial policies can be (and has been) based on a variety of arguments. For example, one view holds that if complementary industrial activities exhibit increasing returns, government industrial policy can play an important coordinating role. Alternatively, some observers of the east Asian "miracle" have argued for the presence of positive externalities in some activities, such as exporting. Such externalities would justify a government role in the encouragement of exports.

But why would directed credit be a good way of implementing such industrial policies? Among the arguments that have been offered are that because of asymmetric information, banks may tend to offer funds to firms that have collateral, available internal funds, or good track records, rather than to those that have the best investment opportunities. This may create a role for the support of credit to small- and medium-sized firms. Alternatively, subsidized loans may provide the firms that benefit from them with greater incentives to perform than would outright subsidies, or loans may provide superior monitoring benefits than subsidies. Finally, the implicit "financial repression" tax used to fund such loans may be less distortionary than the relevant explicit taxes required to finance outright fiscal subsidies would have been.

c. Financial Repression and Growth in East Asia: Evidence

What light does the evidence shed on these interpretations of the role of financial repression in the growth experience of the Asian "miracle" economies? We can break the evidence down into several components.

1. Financial Deepening and Growth

First, consistent with the cross-country evidence discussed in Chapter 11, financial deepening actually accompanied real growth in Japan, Korea, and Taiwan (i.e., the ratio of financial assets such as broad money to GDP increased as incomes rose). Thus, it proved possible to achieve high rates of expansion of the financial sector without liberalization of the financial system. This certainly is consistent with the view that the initial distortions were not excessively harmful, and that these economies were successful in spite of financial repression simply because they did not overdo it.

The key question, however, is whether policy helped to ease the severity of financial repression, which fostered financial deepening and contributed to growth, or whether financial deepening was simply driven by fast growth. This is the familiar direction-of-causality problem that we have encountered before. There is some indication, however, that financial deepening was not purely the result of rapid growth, but also responded to policies. This evidence is in the form of episodes in which the severity of financial repression varied due to events that could arguably be claimed to be exogenous. For example, the Korean ratio of financial assets to GDP was flat for a long period (1972–78) when inflation was rapid and real interest rates were negative, despite the rapid growth in GDP at this time. Once policy changed to bring inflation under control and liberalize the financial sector somewhat, the ratio resumed its increase. Japan had a similar experience in 1965–70, but Taiwan, which never allowed high inflation and had consistently higher real interest rates, did not. These episodes are at least suggestive of the possibility that changes in financial depth may have been affected by factors that respond to policy in the short run – such as the level of domestic real interest rates – rather than simply responding to economic growth.

2. Financial Policy and Saving Rates

Second, as we have seen, private saving rates were very high in these countries. They actually tended to increase over time. The difficulty is linking these high saving rates with policies directed to the financial sector. For example, there is no evidence that the increase necessarily had anything to do with policy-induced changes in the behavior of real interest rates in these economies. Indeed, the high saving rates in the region may have been due to a wide variety of factors. Prime candidates are rapid growth itself, as well as demographic transitions that took place in the East and

Southeast Asian regions.[4] They may also have been directly fostered by other policies. Governments encouraged saving through the pursuit of macroeconomic stability, through the way that banks were regulated, through restrictions on consumer credit, and through forced saving schemes.

Macroeconomic stability may have encouraged saving because, as we have seen, high inflation tends to be volatile, making real interest rates often negative and unpredictable. This increases the risk associated with financial saving. Moreover, by protecting banks from competition, the "miracle" economies may have made them safer, encouraging saving in the formal financial sector. These countries also made saving through formal financial institutions more convenient to small savers. Postal saving systems not only in Japan, Korea, and Taiwan, but also in Malaysia and Singapore, were designed to attract small savers by offering greater security and lower transaction costs than the informal sector. Restrictions on consumer credit in the context of financial repression, coupled with taxes on luxury goods, may also have encouraged saving. Mandatory saving schemes undoubtedly played a role as well. In some countries (Japan, Singapore, and Malaysia) the implementation of such provident funds may have made a particularly large contribution to saving rates (however, whether these encourage total saving depends on the extent to which they replace saving that would have happened anyway). Finally, these economies tended to have high public saving rates compared to other developing countries, which increased national saving rates directly.

A different perspective on saving behavior in these economies is offered by Singh (1995), who argues that high saving rates in the "miracle" economies of Asia did not reflect particularly high levels of *household* saving, but rather of *corporate* saving. These were the results of large corporate profits plus inducements and incentives for firms to retain earnings rather than pass them on to their shareholders. Large corporate profits were achieved by restrictions on domestic competition (in Japan and Korea) and through import protection (both in those countries as well as elsewhere in the region). Governments provided fiscal and other incentives for firms not to distribute these earnings as dividends, for example by taxing dividends and not taxing retained earnings or capital gains.[5]

Some panel-data econometric evidence compiled by Dayal-Gulati and Thimann (1997) attributes high saving rates among the "miracle" economies to macroeconomic stability, public saving, the presence of mandatory saving schemes, and financial deepening. Unfortunately, it does not identify the role of policies in

[4] Rapid growth can increase saving either through standard life cycle arguments that emphasize the higher share of income received by young savers in a growing economy or through habit effects (Carroll and Weil 1993).

[5] However, this argument would need to establish that households did not "pierce the corporate veil" – i.e., consider the savings of the corporations they owned to be their own savings, and thus reduce their own saving as corporate saving increased. Otherwise, national saving would be unaffected by whether saving is done by corporations or by households. Singh does not address this issue.

promoting financial deepening. In an overview of the issue of the determinants of high saving rates in these economies, Patrick (1994) concludes that we do not at present know the extent to which increases in saving rates and their mobilization through the financial system were due to growth, reduced inflation, higher real interest rates, the spread of financial institution offices, or other variables.

3. Financial Policies and Investment Rates

Turning to investment, private investment was much higher in the Asian "miracle" economies than in other middle-income economies, though public investment rates have not been very different.[6] We have already seen that directed credit policies tended to favor investment rather than consumption. But does that mean that high private investment rates were driven by the supply of funds – and thus by policy-directed lending – rather than by the demand for funds? The answer is that we cannot draw this conclusion too readily, because many other aspects of the policy environment also favored investment demand. Investment was in part fostered by macroeconomic stability and high growth itself. But it was also induced by secure property rights, complementary public investment in infrastructure, and policies that tended to reduce the cost of capital, such as tax policies that favored investment and low tariffs on imported capital goods. The relative contributions of all these factors to the high investment rates in the region remain to be sorted out.

4. Financial Policies and the Efficiency of Investment

A separate issue has to do with the efficiency of investment. This is a crucial issue in interpreting the roles of financial repression and directed credit, because if directed credit policies allocated capital to relatively unproductive uses, we would expect this to show up in low rates of total factor productivity growth in the region.

Unfortunately, the relative contributions of capital accumulation and total factor productivity growth to the exceptionally high growth rates of the "miracle" economies have not proved easy to sort out. A well-known study of the "miracle" economies by the World Bank (1993) concluded that accumulation accounted for about two-thirds of growth in incomes per capita among these countries on average, and growth in total factor productivity for the remaining third. The latter was still higher than in most other economies, however, both absolutely and as a share of output growth.

Two methodologies were used to address this issue in the Bank study. First, cross-country regressions were estimated for 113 countries, with per capita growth estimated as a function of the ratio of the country's per capita income in 1960 to that of the United States, the investment/GDP ratio, the rate of primary and secondary school enrollments in 1960, and the rate of growth of the economically

[6] However, public investment rates actually *rose* in these countries during the 1980s, in contrast to the experience of most other LDCs.

active population. This model accounted for about two-thirds of the actual growth in individual "miracle" economies on average. Primary school enrollment accounted for most of the growth, with physical investment second and secondary enrollment third. Still, most regional differences in growth remained unexplained (the model yielded a positive regional dummy for the Asian "miracle" economies, and negative ones for Latin America and Sub-Saharan Africa). The Bank concluded from the latter that the "miracle" economies must have been more successful in allocating resources to high-productivity activities, since the growth residuals would have tended to capture this phenomenon.

The Bank study also calculated TFP growth using a production function estimated for a sample of eighty-seven countries from 1960–89. The East Asian economies were found to have had high absolute levels of TFP growth. Hong Kong, Japan, Korea, Thailand, and Taiwan were in the top decile of countries in this regard. Indonesia, Malaysia, and Singapore were closer to the TFP growth rates of the high-income countries (about 1.5 percent per year) but were in the top third of all developing countries.

To see whether the "miracle" economies were catching up to international technological best practice, the study estimated growth residuals for each country using the estimated output elasticities of capital and labor for industrial countries, as well as the average rate of TFP growth for such countries (1.5 percent) over 1960–89 (the latter was taken to be a measure of the international rate of technological advance). The residual TFP growth for all the countries in its sample was then taken as a measure of the extent to which developing countries have been catching up to international technological best practice.

It found that TFP growth was in a fairly compact range, around 1.5 percent per year for the rich countries, presumably reflecting the common international rate of technological change, so that residuals for these countries were close to zero. It also found that among the "miracle" economies, Japan, Hong Kong, Taiwan, and Thailand were catching up in TFP levels with the industrial countries, in the sense that all of these countries had positive residuals (see also Page 1994). Korea was just keeping up with rich countries in its rate of TFP growth (i.e., it had a residual of approximately zero), while the investment-driven economies of Malaysia, Indonesia, and Singapore were falling behind. Still, even these countries were doing better than developing countries in other regions. For these economies, TFP growth provided a very small share of total output growth (TFP growth contributed less than 33 percent), while the others tend to look more like industrial countries (TFP growth contributed 30–50 percent of total output growth).

The main conclusion from the Bank study, as well as a subsequent study along the same lines by Page (1994) is that, while the growth story among the miracle economies is primarily one of accumulation, these economies were also good at allocation. Based on average world TFP growth, accumulation underpredicted growth for the "miracle" economies as a group. The fact that these

countries had higher rates of productivity growth than 70 percent of all countries suggests that not only were they accumulating, but they were also using resources efficiently. How did they do so? The Bank study argues that good fundamentals and limited price distortions were important. It concludes that the industrial policies adopted in many of these countries made no difference, but that the export push adopted in all of them did, interacting with high levels of human capital (which facilitated acquisition of technological know-how) in a virtuous circle.

Bosworth and Collins (1996) also addressed the TFP growth controversy in the "miracle" economies. They based their interpretation on a study of eighty-eight countries over the period 1960–94. Using growth-accounting exercises, Bosworth and Collins found that growth in the "miracle" economies was mainly due to accumulation. They estimated TFP growth for the region over the whole period to be about 1.1 percent, about the same as for industrial countries excluding the United States, and only slightly higher than South Asia. Taiwan had particularly strong TFP growth, while TFP growth in the Philippines was particularly poor. By contrast, however, TFP growth was estimated to be negative in Africa and the Middle East, and zero in Latin America.

These results were supplemented by cross-country regressions. Growth in GDP per worker was regressed on initial GDP relative to that in the United States, life expectancy in 1960, years of schooling in 1965, the change in the terms of trade, and the standard deviation in the terms of trade. In this regression, regional dummies (using East Asia as reference) proved to be statistically significant for all developing country regions, but not for industrial countries. When the dependent variable was expressed in terms of growth of capital per worker, regional dummies again proved to be significant, but not when the dependent variable was TFP growth. Bosworth and Collins concluded that East Asia was mainly an outlier with respect to accumulation, not with respect to TFP growth.

To see the channels through which policy may have affected growth, Bosworth and Collins added the budget balance relative to GDP, the standard deviation of the real exchange rate, and the Sachs-Warner measure of trade openness to this regression. They found that fiscal surpluses promoted growth through capital accumulation, and that real exchange rate stability did so through productivity growth. Surprisingly, the Sachs-Warner trade measure, though strongly correlated with growth, was correlated with capital accumulation, not productivity growth. Inclusion of the policy variables tended to reduce the regional dummies by about a third, so these policy differences explained about a third of the otherwise unexplained growth gap between East Asia and the other developing-country regions.

Rodrik (1997) showed that estimates of the contribution to growth of total factor productivity would tend to be biased *downward* when the elasticity of substitution in production is less than unity, as long as technical change is biased toward "saving" (i.e., augmenting) the factor that is becoming relatively scarce (e.g., labor, when capital deepening is occurring), as seems plausible. Moreover, the bias is

proportional to the extent of capital deepening, so it would be particularly severe for high-investing economies such as those in East Asia. In interpreting the growth experience of these countries, he also pointed out that an index of bureaucratic quality, as well as the ratio of years of schooling to initial GDP per person, tend to enter cross-country growth regressions significantly, and that East Asia is superior to all other regions with regard to the latter. This implies a high initial ratio of skilled labor to the capital stock in these countries, and thus a high return to capital that would account for the high subsequent rates of capital accumulation in the region.

Finally, Sarel (1997) expressed doubts about the "contrarian" view expressed by some economists that growth in East Asia has been almost entirely accumulation-driven, because the results of such measurements depend critically on capital stock, factor share, and labor aggregation estimates that are questionable. His own estimates, using perpetual inventory methods for estimating the capital stock starting in 1900, produced high estimates of capital stock growth and labor force participation for the East Asian countries, but also estimates of TFP growth that were very high for Korea, Taiwan, and Hong Kong (indeed, higher than in Japan), and not as high, but still respectable, for Singapore. Sarel found that the proportion of growth explained by TFP growth was not different in the "four tigers" from that in the United States and Japan.

Overall, these studies seem to yield one important conclusion: whether the growth of total factor productivity was exceptional or not in the Asian "miracle" economies, there is little evidence to support the view that it was abysmally poor. Thus, directed credit appears not to have created very severe distortions in the allocation of capital. The question is why not.

5. Management of Directed Credit Policies

A recent study by Vittas and Cho (1995) asks precisely this question: they investigate why directed credit policies were apparently successful in East Asia, though they have not been so elsewhere. They cite the roles of both economic and institutional factors in the region as contributing to this outcome. The economic factors include the pursuit of macroeconomic stability as well as of the general development strategy adopted by these countries. This strategy featured an export orientation, the encouragement of domestic competition, the reliance on the private sector, and the presence of a bias toward industrialization. Institutional factors include the creation of an effective monitoring system by the banks, the use of extensive consultation arrangements, and the development and propagation of credible development visions for these economies. They argue that the combination of macroeconomic stability with intense domestic competition, export orientation, and a reliance on the private sector promoted efficiency and provided objective criteria for monitoring on the part of banks. Moreover, the goals of policy-based lending were narrowly focused (on industrialization and export promotion) and were well coordinated with other policies.

Vittas and Cho draw lessons of two types from the experience of these countries with directed credit policies. What they call "good vision" lessons are that credit policies should have a small size and focus, should be of limited duration with clear sunset provisions, and that they should involve a low level of subsidy (to minimize distortions). In addition, they should aim at activities that generate positive externalities, such as those associated with industrialization and exports and they should be based on a competitive private sector with internationally competitive operations. Finally, they should form part of a broader credible vision of economic development promoting growth with equity, and involving a long-term strategy to develop a sound financial system operating on economic criteria. They also draw "good management" lessons. These include the principle that policy-based loans should be channeled through well-capitalized, administratively capable and autonomous institutions, should be based on clear, objective, and easily identifiable criteria, should aim at good repayment records and low loan losses, and should be supported by effective mechanisms for consultation and communication between public and private sectors.

d. Financial Repression and Growth in East Asia: Lessons

What is clear from all of this is that the management of financial repression in the "miracle" economies was special. Financial repression was managed in a way that at the very least prevented financial repression from posing a serious obstacle to growth and may even have permitted it to support growth in these countries. The key points were that the macroeconomic environment was stable, controlled nominal interest rates were not kept unduly low, and policy-based lending was used to allocate funds on the basis of reasonable performance indicators. This last was determined in part by the particular development strategy that these countries had adopted. It is unclear whether the net effect of all of these components was positive or simply not very negative. The answer depends in part on whether the institutional mechanisms could have been put in place to make an alternative set of financial sector policies feasible and on the view one takes about the contribution of industrial policies to the economic success of these countries. What is clear is that the relatively benign role of financial repression in these countries reflected a special set of circumstances that would be difficult to replicate elsewhere.

V. SUMMARY

We saw in the previous chapter that a well-functioning financial system could make potentially important contributions to economic welfare and growth. The emergence of such a system, however, can be influenced in important ways by government policy. These influences can be beneficial or harmful. Because of the many imperfections from which credit markets are likely to suffer in the real world, it

is unlikely that the optimal set of policies toward the financial system would be one characterized by a laissez faire stance on the part of the government. But this does not provide carte blanche for government intervention. A well-designed set of policies to promote the efficient functioning of the domestic financial system must target credit market imperfections narrowly and efficiently. When policies toward the domestic financial system are designed with other goals in mind, the net effect of such policies may turn out to be harmful.

This chapter has explored this issue in the context of financial repression, a set of policies toward the financial system that arose out of fiscal motivations and that imposed severe restrictions on the behavior of the customers of domestic banks, their potential competitors, and the banks themselves. These policies were widespread among emerging markets until relatively recent times. Theory suggests that policies of this type would tend to have harmful effects on economic welfare and growth, and we have seen that the evidence is consistent with this conclusion. While under very favorable circumstances – such as those that prevailed in the Asian "miracle" economies – these effects may be mitigated, the evidence on this is unclear and the relevant circumstances may in any case themselves be difficult to create.

The question, then, is how to make the transition from a repressed financial system to a well-functioning liberalized one – that is, how to conduct an appropriate financial reform. This involves identifying both what the residual role of the government should be in the liberalized financial system that ultimately emerges from the reform process as well as determining how to get from here to there – in other words, what is the sequence of steps required to make the transition? The next chapter turns to these questions.