

# The State, the markets and development financing

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**T**his article examines the role of the State, institutions and financial markets in the financing of economic development, and in particular the role of development banks. It touches on the limitations of today's conventional approach to development financing problems. It stresses information asymmetries as a cause of credit rationing and the poor distribution of savings. It also offers an analysis of the role of the State and markets in development financing, together with a policy agenda suggested by the different approach set forth here. It concludes with some considerations concerning problems and challenges now facing development financing in Latin America.

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# I

## Introduction

In recent years, economists have been taking a renewed interest in the role played by the State in development financing. This interest almost disappeared from the theoretical debate after 1973, when Shaw and McKinnon put forward the thesis that financial liberalization would solve the problem on its own by enabling long-term financing mechanisms to be created in the private sector.

In contrast to the liberal outlook inherent in Shaw and McKinnon's models, neo-Keynesian writers have set out to study the distribution problems caused in credit and capital markets by information asymmetries. Our view is that, while this approach has yielded sound arguments for public policy involvement in development financing, it is still analytically and politically ambiguous and excessively vague as a guide to government policy.

From the analytical point of view, this ambiguity stems from at least two elements: i) the conceptualization of financing in capitalist economies, according to which financial institutions (including banks) are regarded simply as intermediaries between savers and investors, with a merely passive role in determining the volume of funds for investment financing, and ii) the definition of information problems (asymmetry) in the financial intermediation process, which leaves out the concept of uncertainty in the Keynesian/Knightian sense.<sup>1</sup>

From the political point of view, the ambiguity (as many conservative writers have explicitly stated) concerns the scope and the ultimate outcome of State intervention, in the light of what is now a long-standing debate about market failures versus State failures. This is because it is usually not made clear whether the State should confine itself to improving information distribution and regulatory mechanisms, or whether it should finance sectors directly, in which case it is also necessary to determine which sectors should be so benefited.

This article offers a constructive critique of these models, based on a different approach that stresses the role of institutions and uncertainty in the problematic of development financing. Consequently, the analysis offers a more positive view of the role of the State in this field and puts forward a policy agenda that, in theory, could guide financing and institutional development policies in the financial market.

The article is divided into five sections. Following this introduction, section II undertakes a critical examination of the conventional approach to the problems entailed in development financing; section III presents an alternative approach based on a Keynesian outlook; section IV considers what policy agenda arises from the approach presented in the previous section, and section V brings a summary and conclusions.

# II

## The conventional approach

All theories need a stylization of the ideal operating conditions for the object of analysis. In physics

models, for example, results are always calculated for "normal conditions of temperature and pressure". By

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<sup>1</sup> This omission is particularly serious given that one of the fundamental characteristics of developing economies is the continuous emergence of new sectors, the introduction of new technologies and the creation of new markets. These are, by definition, situations of uncertainty, since there are no past data that can easily be drawn upon to guide credit analysis or to determine companies' long-term asset prices.

positing this “ideal environment” we can characterize the process in its unadulterated state and evaluate results that appear to differ from those predicted by the theory.

The same procedure is used in economic theory: a model is created for the operation of markets and their agents in what is considered to be an ideal environment. As we are dealing with social systems, and thus with human institutions, this task is obviously far more complex, not only because the object of analysis (economic organization) may be interpreted differently depending on the theoretical and ideological position of the analyst, but also because it alters over time.

Despite this complexity, in financial intermediation and development financing theory, as in other areas of economics, stylization of the object is vital for establishing whether particular markets and agents are working efficiently (by comparison with our ideal model), detecting the failures and “noise” that could be preventing markets from operating properly, and working out policies to remedy possible failures in the intermediation process.

One of the most conventional stylizations of financial intermediation and development financing issues is taken from the neoclassical capital market model and termed the efficient markets hypothesis (Lewis, 1992). In the first case, the market is composed of two optimizing agents: savers and investors. Savers (suppliers of savings) have defined intertemporal preferences and investors (users of capital) carry out production functions, and therefore have specific marginal capital productivity curves. The capital market and financial institutions are defined as the *locus* and as the agents through which the intermediation of savings takes place, respectively.

According to this model, savers and financial intermediaries have, under ideal conditions, all the information and instruments they need to determine their portfolio composition, and there is no lack of investment financing sources. Some investments go unfinanced because their returns are lower than savers ask, given their intertemporal preferences.

According to the efficient markets hypothesis, capital markets are efficient if they fully and accurately reflect all information in setting the prices of financial securities (Malkiel, 1994, p. 739). In its most categorical form, this theory suggests that, notwithstanding the possible (short-term) volatility of financial asset prices, these change over the long term in accordance with the underlying economic variables of the agents who issue

them (Wicksell’s natural rate of interest).<sup>2</sup> This hypothesis, then, simply complements or reinforces the idea that savings are allocated efficiently to the most profitable investments, in accordance with the intertemporal preferences of savers.

In the conventional model, then, the financial system is defined as a *locus* or passive intermediary that does not influence the volume and quality of investment financing funds. Its efficiency is gauged simply by its ability to distribute information among productive investors and savers, the “real actors” in the financial market. Vittas and Cho summarize this point of view as follows:

“In an ideal world in which economic information is complete and readily available, the financial system is passive. Investors fund the projects that yield the highest returns, and neither governments nor financial institutions need to improve the allocation of credit. In the real world, however, information is highly imperfect and costly to acquire, and the allocation of credit suffers from the unequal distribution of information, the costs of monitoring and verification, and the cost of default or contract enforcement. Under these conditions, credit is not necessarily allocated to its best use” (Vittas and Cho, 1997, p. 278).

When the conventional approach is applied to the analysis of development financing problems, the outcome is that only two reasons (“failures” or “impurities”) can be found to justify active government policy intervention in the financing process:

- i) markets are incomplete (underdeveloped) and thus cannot act as efficient intermediaries between savers and investors, and
- ii) there are significant information failures that prevent markets from distributing savings efficiently.

For at least the last three decades, as we shall now see, these have been the two main focuses of most of the conventional development financing analyses that, emphasizing one aspect or the other, have provided the basis for policy-making.

<sup>2</sup> See Andersen (1983-1984) for an analysis of the efficient markets hypothesis.

## 1. Incomplete markets and financial repression

Half a century ago, Gurley and Shaw (1955) recognized that the capacity to finance growth might be constrained when there were no markets capable of matching the maturities of surplus spending units (savers) and deficit units (investors). If the market were incomplete the supply of credit would be below potential and the level of accumulation thus lower than it would otherwise have been.

In our view, this would be an interesting way of analysing the problem of development financing had it not come to be generally understood as a by-product of the conventional approach described. This by-product, which has been of the greatest importance because of its influence on the financial policies of developing countries (and even some developed ones), is the range of so-called financial liberalization models that have come out of Shaw and McKinnon's seminal studies of 1973. Those authors share Gurley and Shaw's (1955) opinion that financial underdevelopment is a serious obstacle to development. The difference between the two types of analysis is that financial liberalization models link financial underdevelopment (incomplete financial markets) with prolonged "financial repression" in such economies.<sup>3</sup> In other words, "financial underdevelopment" (defined here as lack of financial depth) is put down exclusively to misguided interest-rate repression and selective lending policies.

To Shaw and McKinnon's way of thinking, State intervention in capital markets is not justified by failures of intermediation due to incomplete markets. Rather, it is because of the intervention itself that markets remain incomplete. Using these authors' work as a starting point, economic development theory came to regard the issues raised by Gurley and Shaw in the 1950s—the problems of financial underdevelopment and its negative effects on development, and the role of the State in mitigating these effects—as secondary matters that could be resolved fairly easily by financial liberalization.<sup>4</sup>

Models like the one suggested by Shaw and McKinnon provided a theoretical justification for some failed attempts at financial liberalization, whose disastrous outcome was that instead of the supply of lending and investment resources expanding as

expected, financial instability increased and was often followed by the failure of banks and enterprises, in addition to economic recession.<sup>5</sup>

Perhaps the clearest lesson from these experiences is that the problem of incomplete markets in development financing is not resolved simply by reducing the role of the State in capital markets, deregulating, and freeing up interest rates. In fact, the institutions and markets which we term the financial system are usually the outcome of decades of trial and error by private-sector agents, working under the stimulus of policy and regulation. In the case of development financing (and financial market institutions) it can be seen that institutional experiences and configurations differ widely, in both developed and developing economies.<sup>6</sup> This subject, which is perhaps the most important in this article, will be returned to later.

## 2. Information asymmetries and distribution problems

By moderating the typical Walrasian model hypothesis concerning the perfect distribution of information, authors such as Stiglitz have been able to show that there are problems with the distribution of long-term funding (such as credit or even equity rationing) caused by failures of information distribution.

According to this view, then, information asymmetries can introduce financial market inefficiencies that may have considerable real *quantitative* effects (Gertler, 1988, p. 560). In other words, lenders (direct or intermediary) have difficulty in distinguishing between good projects (for instance, profitable investment projects with a low risk of default) and bad ones. To avoid adverse selection risk and moral hazard, the rational solution for the lender is to set interest rates lower than the capital market equilibrium rate and ration credit. Besides distorting the distribution of funds,<sup>7</sup> this leads, as Stiglitz and

<sup>3</sup> See Studart (1999) for a critical analysis of these models.

<sup>4</sup> See, for example, Gertler (1988) and Gersovitz (1988).

<sup>5</sup> Studart (1999) presents a bibliography of papers that describe the failure of attempts at financial liberalization as a way of expanding sources of development financing. Of these papers, perhaps the most striking is that by Díaz-Alejandro (1985).

<sup>6</sup> Howells and Bain (1997, chapters 16-19) give a description of the fundamental differences between the financial market institutions of the United Kingdom, the United States, Germany, France and Italy. See Zysman (1983) for a more detailed analysis of the effects of these institutional systems on investment financing mechanisms.

<sup>7</sup> A typical instance of the "lemon" problem as proposed by Akerlof (1970).

Weiss (1981) have shown, to a reduction in the credit supply.<sup>8</sup> Faced with these failures, the State would seem to have an important enabling role to play, supplying credit to rationed sectors and bringing sectors with good prospects to the attention of intermediaries and savers.<sup>9</sup>

This approach has been criticized on two counts: i) if the problem is due to failures of information distribution, then more careful regulation, with internationally accepted rules of disclosure, and recent advances in the production and distribution of information (such as the emergence of private-sector risk-rating agencies) should make State intervention unnecessary, and ii) if there are market failures, what guarantee is there that they will be worse than government failures?<sup>10</sup>

### III

## Investment financing and market structures: beyond the conventional approach

In several passages of the General Theory (Keynes, 1936), and in later articles, Keynes insisted that investment was the determining factor in income and saving. This reversed the direction of causality identified by the conventional approach, as was logically required by his principle of effective demand.<sup>11</sup> The switch points, in turn, to a hierarchy of agents in the financing mechanisms of capital formation in capitalist economies:

i) as Wicksell also concluded, it is banks, and not savers, that play a fundamental role in determining the aggregate supply of investment financing sources, and thus “in the transition from a lower

By contrast with analyses based on Gurley and Shaw’s models, those that follow Stiglitz’s (1993) thinking play down the problem of financial underdevelopment (the fact that financial markets are incomplete) when examining the difficulties of development financing. This is because for Stiglitz the problem is purely macroeconomic (information asymmetry) and independent of the institutional structure (size and organization of financial markets) in which financial intermediation occurs. Again, because the problem is one of poor information distribution, it makes no difference whether economies are slow- or fast-growing, or whether they have undergone deep structural changes or not. In our view, these two aspects are major gaps in any attempt to understand the problems of development financing.

to a higher scale of activity” (Keynes, 1937, p. 668);

ii) saving is a result of the investment process, and not a prerequisite for investment;

iii) the allocation of savings that are generated by the income multiplication process is important for dealing with problems resulting from the growing mismatch between maturities during economic growth, and

iv) the preference of banks and securities holders for liquidity, and not the intertemporal preference of consumers, is what determines the volume and maturities of investment financing.

<sup>8</sup> This analysis runs directly counter to the theory of financial repression: “This is important because the original critique of interest-rate ceilings was that they created a credit rationing problem. The ceiling prevented the price of credit from rising until demand for credit equalled supply. It is now believed that credit will be rationed even without the ceilings set by policy” (United Nations, 1999, p. 138).

<sup>9</sup> See Stiglitz and Uy (1996) for an application of this approach to the analysis of the South-East Asian experience.

<sup>10</sup> This is the tenor of the following comments by Jamarillo-Vallejo (1994, p. 53) on Stiglitz (1993) at the Annual Meeting of the World Bank, which echo many current criticisms of development financing institutions: “In his paper Stiglitz is asking us to assume that governments all over the world —especially developing countries—

are wise, fair and efficient enough to carry out the kind of ‘perfect’ intrusive intervention suggested by him. It is as if the world of the second best had just been discovered and we had not learned from the experience with the different forms of government intervention that we have seen in this century.” Vittas and Cho also raise this dilemma in the same terms: “Ultimately, however, the advantages depend on the *motivation and efficiency of the government involved*. Governments do not always ‘do the right thing’. Government involvement in credit allocation can, and often does, result in rent seeking by borrowers, corruption by bankers and government officials, and crowding out of other worthwhile projects” (Vittas and Cho, 1997, p. 280; my italics).

<sup>11</sup> See Carvalho (1992, part I) for a post-Keynesian analysis of the foundations of Keynes’s theory.

The differences between Keynes's approach and the conventional model are not merely semantic: the Keynesian model has a "stylization" of its own, embracing the microeconomic, macroeconomic and institutional dimensions of the investment financing process. This stylization can be used as an alternative to the conventional approach when examining the role of the State, markets and institutions in development financing. This is what will be explained now.

### 1. Mismatched maturities and credit rationing in a development context

A large proportion of development financing needs are for long-term funding. Productive investment usually goes to fixed assets, which take a long time to generate returns. In financing the acquisition of a long-term asset, both commercial banks and productive investors will be exposed to the risks entailed by mismatched maturities. If banks grant long-term loans (and accept savings at shorter maturities, as usually happens), they are not only exposed to an obvious risk of default, but also run liquidity and interest-rate risks. If their financing is short-term, the productive investors will have to be continually rolling over their short-term credits, and will thus be exposed to the risk of higher interest rates (which in turn increases the risk of default on their bank loans).

Like any other agent, bankers have a preference for liquidity, although this is defined differently in their case than in that of financial investors. The preference of banks for liquidity can be expressed by the following argument. Given the stock of reserves held by commercial banks, the creation of deposits represents a reduction, albeit temporary, in the ratio between reserves and high-liquidity assets on the one hand, and sight deposits on the other. This ratio (hereafter  $\alpha$ ) is a proxy for the increase in the maturities gap between bank assets and liabilities. A lower  $\alpha$  means greater financial vulnerability for banks.

The smaller and shallower interbank and securities markets are, the greater this vulnerability. For example, in the absence of a large interbank market or a market for securities bundled into securitized loans (secondary securitization), the liquidity of loans in bank portfolios will be zero. This means that Central Bank rediscounts are essential to prevent bank liquidity problems. Because such rediscounts are punitive in character, however (either because their discount rate is higher than the market rate, or because they entail a loss of public confidence in the solidity of the bank applying

for them), banking institutions only use them as a last resort.

Thus, given the structure of financial markets and the access of banks to liquidity sources, the preference of these institutions for liquidity can be traced directly to the perception that default, liquidity and interest-rate risks increase as deposits rise.

Interestingly, in periods of investment-based growth, perceived default and liquidity risks tend to rise simultaneously: while the portfolio of applicants for bank funding tends to expand (implying the acceptance of new customers with higher perceived risk), the ratio between total liquid assets and loans falls.<sup>12</sup> Since such lending is financed by expanding short-term deposits, the mismatches between liability and asset maturities increase.

As perceived total risk rises, banks tend to become more conservative for any given level of expectations and begin to be more selective in their lending, seeking more collateral and better returns on their operations. Thus, over the course of the development process, rising demand for credit (usually stronger than aggregate demand growth, at times of economic expansion) tends to be rationed for a given level of expectations.<sup>13</sup>

In growing economies where financing comes from bank lending, therefore, credit rationing is due not only to information asymmetries, but potentially to three other causes:<sup>14</sup>

- i) bank financing levels come up against ceilings set by banks (given their level of expectations) as they respond to ever-increasing demand for credit;
- ii) banks do not have the data they need for credit analysis, for example in the case of new clients;
- iii) data for accurately assessing the creditworthiness of potential clients do not exist or are of no use. In the latter case, for example, there tends to be discrimination against innovative companies (those that introduce new products or forms of

<sup>12</sup> It could be assumed that banks expanded their lending only to existing clients, of course, but this would be an extreme case.

<sup>13</sup> See Sobreira and Studart (1997) for a formalization of this hypothesis. It should be noted that in general, as Minsky (1982) shows, bank expectations tend to rise at times of growth, which creates the potential for lending booms.

<sup>14</sup> Credit rationing caused by information distribution problems (information asymmetry) affects the financing (whether of production or accumulation) of any kind of productive activity. This is because a microeconomic problem comes into play: the market may be very good at allocating resources, but to do this it must have access to the information it needs to evaluate risk and, thence, expected returns.



production or operate in new domestic and external markets) and against small and medium-sized enterprises (Dosi, 1990).

Thus, at times of growth, credit is rationed mainly by applying greater selectiveness to the growing perceived risks. This rationing tends to favour established enterprises that can offer higher-value collateral, which may result in the exclusion of new or small businesses and of investment projects whose returns are uncertain or very long-term.

## 2. The role of capital markets, speculators and individual and institutional investors

We have seen that, in the absence of long-term securities (issued by companies in specialized markets or sold by “universal banks”), investment financing involves an increase in the financial vulnerability of investors or financial intermediaries, defined for the purposes of this study as the difference between the average term of their assets and that of their liabilities. The less developed the markets or the demand for longer-term assets are, the greater the problem of asset mismatch will be and the harder it will prove for private-sector agents to undertake investment financing.

Long-term securities markets provide individual investors with the liquidity they require (through trading in secondary markets), increasing the attractiveness to them of securities which for the

community as a whole are, by definition, illiquid.<sup>15</sup> Such securities markets are, therefore, the main market mechanisms allowing productive investors and “universal banks” to extend the maturity of their liabilities and therefore reduce asset mismatch. This process of liability restructuring, whether by extending maturities or converting debt, is what Keynes called “funding”.

The extent to which capital markets accelerate economic growth largely depends on the size and development level of the primary markets where assets are issued and where, consequently, capitalists can obtain financing. The size of primary markets depends, in turn, on how well organized secondary markets are and how much business is transacted there, since these markets give issuers the opportunity to place securities more cheaply and give financial investors the liquidity needed to offset the risk of capital losses. A large volume of daily transactions is essential to the liquidity of secondary markets, and this requires dynamic participation by short-term investors (speculators).

Although speculators are essential to the market, long-term individual and institutional investors are the “anchor” that prevents volatility from becoming excessive. A market dominated by short-term speculative activity tends to inhibit the operations of institutional investors, particularly those that are more averse to capital risk, such as pension funds and insurance companies.<sup>16</sup>

# IV

## The problems of development financing

In the context of development, the existence of appropriate institutions, markets and market regulation and supervision mechanisms makes possible, but does not guarantee, investor access to long-term financing.<sup>17</sup> Such access is essential for financially sound growth.

Besides considering the need for a suitable regulatory and legal framework, any analysis of

development financing problems needs to take at least two aspects into account: institutional underdevelopment (including financial markets, institutional investors<sup>18</sup> and the auxiliary institutions of financial intermediation) and information problems (asymmetrical information and uncertainty). These aspects are analysed below, and will provide the basis for the policy agenda presented in the following section.

<sup>15</sup> In other words, if all the holders of a given financial security decided to sell it simultaneously, its price would tend quickly to zero.

<sup>16</sup> It is no coincidence, therefore, that growth in the United States capital market involved the simultaneous expansion of company listings and institutional investors. This subject will be returned to later.

<sup>17</sup> This section draws on Acevedo (2000).

<sup>18</sup> See Studart (1999) for an analysis of the role of institutional investors in the provision of long-term funding.

## 1. The weight of institutions and history

The system of liability restructuring (funding) through capital markets requires a complex institutional system. Alongside a legal and regulatory structure that guarantees rights and reduces the likelihood of fraud, these markets are constituted by agents with different investment preferences and by providers (businesses and government): institutional investors (including pension funds) usually have a preference for longer-term securities, while speculators buy and sell over shorter terms.

Institutions of this kind do not develop as a straightforward result of market forces. One of the great problems connected with the development of capital markets is the cost of maintaining them, which largely depends on their original scale. For this scale to be significant, the number and size of issuers, the volume of funding that needs to be raised and the number of long-term security purchasers are all of vital importance. The development of the United States capital market in the late nineteenth century was basically underpinned by gigantic railway projects required for the expansion into the interior of the country. Not only were the original issuers large companies, but income distribution in the United States economy was better in the nineteenth century than it is in most developing economies today. Combined with relatively rapid economic growth, this led to a considerable and steady increase in demand for assets issued on the capital market. It also provided the basis for an increase in the number of institutional investors, as these tend to concentrate savings and invest them in assets that are compatible with their contingent liabilities, i.e., over longer terms.<sup>19</sup>

Where long-term assets are concerned, the scale of both supply and demand appears to be crucial. This is why highly developed securities trading markets are not the historical norm, but the exception. Most developed economies—the exceptions are the United States and the United Kingdom—and developing economies have different funding mechanisms.<sup>20</sup> The

German system, in which funding is dominated by private-sector “universal banks”, is an interesting and much cited example.

The German model is characterized by concentration in two respects: i) the type of financial institutions, since universal banks predominate and the role of specialist institutions (banks and non-banks) is not significant, and ii) the large size of banking institutions. Another structural characteristic of the private-sector credit system is the weakness of the capital markets as sources of corporate financing, even in the case of large enterprises, which should in theory have easy access to direct funding. The concentration of financial saving in banking institutions makes them the main potential purchasers of securities and shares. This tends to depress the demand for those securities that compete directly with the other core business of banks: lending. Thus, in the German model it is indirect financing that predominates, the intermediaries being banks that capture savings in the form of deposits and apply them as loans.

Regulation also played an important role in shaping this type of financial system, although it worked in a direction quite contrary to that seen in the United States or the United Kingdom. In Germany, for cultural and historical reasons, financial regulation always sought to create the right financing conditions for rapid economic growth and, indeed, reconstruction in the post-war periods (Zysman, 1983, pp. 251-265). Accordingly, no restrictions of any kind were placed on the areas in which banks could operate; on the contrary, they were—and still are—explicitly allowed by local authorities to operate even in the non-financial sector. This regulatory background largely explains the tendency towards concentration in the German financial system (in the two senses mentioned earlier) as well as the tendency towards conglomeration or the formation of large corporations led by universal banks, which operate in various sectors of the economy.

Looking at specific financial structures helps to reinforce the idea that there are different institutional models for accumulation financing and there is no reason to think that one is more efficient than another.

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<sup>19</sup> This is not the place to go further into the role of railway development in the growth of the United States capital market. The reader is referred to Schumpeter (1939), particularly chapter VII, for further information on the subject. See also Pollard (1964) for an analysis of developments in the United Kingdom.

<sup>20</sup> In the United States model before deregulation in the 1990s, commercial banks were usually the main providers of the finance needed to begin investment projects. Investment banks played an auxiliary role, providing loan guarantees for investing companies,

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underwriting the flotation of the securities concerned when conditions in the organized markets were favourable, and holding in their portfolios securities (shares and bonds) issued by the companies financed. It should be noted that, from a macroeconomic point of view, the additional saving generated by the multiplier process increases the liquidity of organized markets, and this in turn determines the market conditions for such issues.



Zysman (1983), for example, argues that systems as different as those of the United States (based on capital markets) and Germany (based on credit) were equally effective for the development of their economies after the War.

We can conclude that, regardless of the institutional organization of the financing process, the existence of such funding mechanisms may be essential for maintaining the borrowing conditions of investor companies and reducing their financial vulnerability to potential changes in short-term interest rates. Otherwise, growth may be restricted by the absence of appropriate financing mechanisms or by a considerable increase in the financial fragility of productive investors and the banks that finance them.

## 2. Institutional underdevelopment: markets, universal banks and institutional investors

For finance mechanisms to exist, all that is necessary is the existence of banking institutions with the ability to issue means of payment. Nonetheless, we have already seen that development financing based on bank credit tends to lead to financial fragility and credit rationing, factors that jeopardize the continuity of growth. This is because, firstly, financial instability tends to depress the economy<sup>21</sup> and, secondly, because growth can be constrained by the lack of investment financing mechanisms. An economy that lacks suitable funding systems is an economy with little financial slack for economic development.

Capital market systems are perhaps the most complex problem of development financing since, for institutional progress to be made with them, not only does there need to be a suitable system of regulation and supervision, but at least four interrelated factors come into play.

In the case of capital market-based systems, these factors are:<sup>22</sup>

- i) the size and depth of markets for long-term corporate securities, and
- ii) the size and investment profile of institutional investors.

In the case of universal bank systems, the factors are:

- iii) the investment profile of financial investors (families and institutional investors) in these banks' assets, and
- iv) the profile and potential role of banks in long-term financing.

Institutional investors not only help bring robust capital markets into being, but stimulate them to attain greater efficiency and depth, as Vittas argues:

“Experience from Anglo-American countries suggests large potential benefits from the interactive process between institutional investors and securities markets. Institutional investors can act as a countervailing force to the dominant position of commercial banks and thus promote competition and efficiency in the financial systems. They can stimulate financial innovation, modernize capital markets, enhance transparency and information disclosure, and strengthen corporate governance” (Vittas, 1998, p. 6).

Nonetheless, the increase in the number and size of institutional investors in the financial system should not be regarded as a cure-all for the development of long-term private-sector financing mechanisms. The expansion of institutional investors (pension funds, for instance) does not in itself lead to an increase in the supply of credits for investment financing. Such an increase continues to depend largely on the earning and saving capacity of families and businesses.

At the same time, the growth and development of institutional investors make it easier to match financial instruments to the maturities usually required in the productive investment process, because such institutions (which include pension funds, mutual funds and insurers) have long-term contingent liabilities, and this enables them to invest in long-term instruments such as shares and bonds.

Thus, the existence of organized markets for long-term securities (such as capital markets) and of institutional investors with a preference for long-term investments could ease the problem of mismatched asset maturities. After carrying out an investment, the investing companies could have access to securities with maturities that were more compatible with those of their investments, and thus pay off short-term credits obtained from commercial banks.

This is why investment financing in most economies with small capital markets is carried out

<sup>21</sup> See, for example, Minsky (1982).

<sup>22</sup> In the current debate, excessive importance is attached to the regulation and supervision of financial markets as a way of fostering development financing mechanisms. Appropriate regulation and careful supervision are obviously indispensable to the operation of any market but, for the reasons already given, they will not in themselves resolve the problems of development financing.

through universal banking institutions capable of drawing in long-term funds (such as the German universal banks), or through public-sector banks that carry out funding using fiscal or para-fiscal resources (as in most developing economies). These are alternative ways of avoiding the problem of mismatched maturities, which can constrain the expansion of long-term financing for economic growth.

The development of a long-term bank securities market is attended by some of the same problems as are faced by corporate securities markets, including those of scale. After the War, for instance, Germany experienced a large rise in the demand for long-term bank assets, as a result of:

- i) the concentration of investment in reconstruction and the equipping of industry;
- ii) the particular role of the universal banks in the direct financing of the accumulation process;
- iii) economic growth associated with a fairly equitable income distribution;
- iv) the preference of German savers for assets issued by universal banks, as capital markets were tiny to begin with.

Thanks to the increase in demand for bank securities, insurance and long-term saving instruments, universal banks were in a position to capture resources with different maturities, from sight deposits to longer-term ones. Consequently, the management of mismatched maturities is carried out within the asset structure of these institutions themselves.

Having the right institutions to finance and fund accumulation seems to be a basic prerequisite for financially sound development. Even if we assumed the existence of fully developed markets or banking institutions with the characteristics of the German universal banks, however, there would still be problems caused by information failures and uncertainty in the funding process. Once we have analysed the aspects related to information we can conclude our analysis of the problems of development financing.

### 3. Information failures and uncertainty

Development is usually characterized by a combination of growth and structural change, with innovative companies often introducing new technologies or new ways of organizing production, or entering a sector where learning costs and economies of scale may constitute barriers to entry (Dosi, 1990). In these situations, uncertainty about the future and thus

investment risk are high, but decrease as infant industries mature.<sup>23</sup>

The logical consequence of what has just been said is that information problems increase considerably in economies that are going through a stage of growth and structural change. If our hypothesis holds true, the financing problem in developing economies is not confined to information distribution or failures in relation to various projects with known returns, but extends to uncertainty about the outcome of efforts to introduce a new production pattern or to find new markets, as well as the consequences of these factors for the sector and the macroeconomy.

Table 1, which distinguishes two types of uncertainty, illustrates this: type I uncertainty can be reduced to risk, while type II cannot. Established firms and sectors with a performance track record, generally in the form of periodic balance sheets, and with relatively high collateral and marginal investments, are type I risks. Type II risks are new firms with no track record and little collateral to set against the risks incurred.

Whether or not there is a private-sector finance and funding structure, type II information problems impede risk analysis and thus the private-sector intermediation of resources for particular firms. This cannot be regarded as a market failure: the efficient markets hypothesis itself is based on the idea that private-sector institutions and financial markets are efficient at collecting, processing and distributing information. Obviously these markets and institutions, even in a fully competitive environment, do not act as providers of finance in conditions of uncertainty that cannot be reduced to risk.

According to the definition of economic development given previously (as a process of growth associated with structural change), and assuming we are correct in our conclusions about the effects of uncertainty that cannot be reduced to risk on the financing process, the role of the State in development financing is far more significant than the conventional model would suggest. It is no coincidence that public-sector development institutions in developing countries arise primarily as instruments for applying development strategies and only secondarily as a response to information failures in markets. The role of these

<sup>23</sup> See Moreira (1995, chapters 1-4) for a modern analysis of the infant industry concept and its use to justify the application of industrial promotion policies in the development process.

TABLE I

## Information problems when growth is accompanied by structural change

	Type I	Type II
Type of financing demand	Established companies and sectors with relatively high collateral and marginal investment.	Creation of new companies or sectors; entry into sectors with entry barriers due to learning costs and economies of scale, or into new markets; relatively little collateral.
Information problems	Information distribution problems (information asymmetry, etc.).	Information from past offers no reliable guide to the future performance of investing companies.
Possible intermediation failures	Monitoring, selection and lending problems; incomplete or non-existent markets; imperfect competition. Credit rationing caused by a rapid increase in the financial vulnerability of commercial banks.	Risk cannot be evaluated, so that private-sector financing sources are not available.

Source: Prepared by the author.

institutions is not confined to intermediation between savers, other financial intermediaries and investors. This is what will be analysed below.

#### 4. Policy and the role of development banks

What do the conventional models have in common as regards the role of the State in development financing? In our view, it is the idea that the State is external to the financing of the capitalist accumulation process. Whereas in some models State intervention is seen as distorting relative prices, reducing the efficiency with which resources are used, in others this intervention is seen as a last resort for dealing with intractable market failures.

The approach taken by the present study implies that the State can play a role of great importance in fostering more solid sources of development financing, given that:

- i) institution-building policies can (and should) mitigate the problems of incomplete markets, facilitating the creation of finance or funding mechanisms that use private-sector resources. These policies range from the development of appropriate regulations and oversight mechanisms to the provision of incentives for the creation of long-term securities markets.<sup>24</sup> Since institutional

- investors are vital for the consolidation of such markets, these policies also have to offer incentives (regulatory and otherwise) that increase the attractiveness of the securities concerned;
- ii) direct financing policies can help construct a path towards development and the establishment of what Stiglitz and Uy (1996) call a “vision” by creating new information and making it possible for agents to organize themselves and plan for the future on the basis of optimizing behaviour. This is what Aoki, Murdock and Okuno-Fujiwara (1997) consider “market enhancement”.

These two lines of policy are complementary. A developmentalist State needs to orient its policies essentially towards the implementation of a development project and the consolidation of particular sectors as part of that.<sup>25</sup> Public-sector development financing policies (and their instruments, the development banks) emerge, therefore, as tools for implementing development strategies, channelling

possible the creation of a liquid secondary market in mortgages... The modern home mortgage in the United States and the securitized mortgage market itself are initially the result of the 1934 National Housing Act. This Act created the Federal Housing Administration (FHA) as a mechanism for attracting private capital into the housing market.” The chapter in Feeney referred to presents an interesting analysis of the role of public-sector institutions in the development of this market, now the world’s largest domestic market in private-sector securities.

<sup>25</sup> This seems increasingly to be the conclusion arrived at by authors as varied as Amsden and Euh (1990), World Bank (1994) and Stiglitz and Uy (1996) in relation to the success of the South-East Asian model.

<sup>24</sup> An example of this was the development of the mortgage asset markets that now form the basis of the United States property financing system. As Feeney (1995, chapter 5) puts it: “The US securitized market has been greatly influenced by a number of government and quasi government institutions, which have made

TABLE 2

**A classification of development financing-oriented public policies**

Information Markets	Complete information	Asymmetrical information	No information
<i>Intervention required</i>			
Complete markets	No intervention necessary	Better information distribution (BI) policies	BI + market enhancement (ME) policies
Incomplete markets	Institutional market development (MD) policies, including incentives for institutional investors to invest in long-term private-sector assets	MD + BI	MD + ME
No markets	MD	MD + BI Selective lending (SL) policies	SL

Source: Prepared by the author.

long-term funding into strategic sectors and creating investment opportunities, not only within the sectors chosen but also in those with which the sectors concerned have forward and backward linkages.

Consequently, development banks are not just intermediaries between savers, other financial intermediaries and investors, but enablers of market creation and producers of the information required. Once standardized, with known quality and returns, their instruments can be traded in private-sector securities and credit markets.<sup>26</sup> In other words, once these markets have been created and returns on the instruments generated have been assured, the attractiveness of their securities for the private-sector capital market opens up debt rescheduling or conversion opportunities that do not require recourse to public funds. Public money should be treated as a scarce resource, given the demand for social spending that development entails.

Again, the rules for State intervention in the development financing process should be classified by how complete the markets and information for the sectors to be financed are. Table 2 gives the results of a simple policy classification exercise.

The table is an attempt to classify decisions on State intervention and the type of policy required to deal with problems of incomplete information and markets. In the case of sectors and businesses that have access to financial markets and to all the information they need, no State intervention is required. This is the position of large enterprises listed in organized securities markets, which not only have access to these markets but publish regular audited balance sheets.

Moving towards the right of the table from this category, i.e., to the “Asymmetrical information” and “No information” columns, the need for government intervention increases. In the case of established firms that are in a position to publish balance sheets and whose future prospects can easily be assessed by the market, what is needed to deal with information asymmetries is a policy that encourages the spread of information, rather than a standing policy of selective lending. Firstly, credit risk databases (available to private-sector financial institutions) could reduce the problems of asymmetry here. Secondly, public-sector financing institutions could make credit lines conditional on these companies raising funds in share or long-term securities markets, which would help make the issuer more transparent to the financial market. This is what we have called better information distribution policies (BI).

When information needed by the market to analyse risk is not available (uncertainty), a distinction has to be drawn between two possible categories of firm. The first includes established small companies that, because of their size, do not normally have

<sup>26</sup> The Republic of Korea offers a useful example for analysis of the role of financial development institutions, not because the State is given a major role in financing, but because of the characteristics of the country's remarkable economic development, entailing as it has considerable long-term financing risks and uncertainties. See UNCTAD (1996, part 2, chapters 1 and 2) for a brief and accurate analysis of the recent development strategy of that country (and other fast-growing Asian economies).

accurate accounting records or much in the way of collateral. In this case, expanding access to private-sector financing is necessary to encourage the use of normal business accounting (a BI policy) and to create collateral funds that can be administered by development banks.

In the second category are businesses whose track record cannot be taken as a guide to future performance (because of their investment profile) and which have relatively little collateral. This category includes companies using advanced technology, or those entering markets that have not been much developed in the country (for example, a new product which has no substitutes in the market). In this case, however developed the financial markets are they will be unable to evaluate the risks and thus will not be in a position

to channel resources (whether through lending or through security and share issues) to these investments. Direct financing may be a viable alternative, at least until the company is established and the information needed for risk analysis is available. Use could also be made of some measures to raise private money, such as the creation of guarantee funds and risk sharing systems. These are what may be considered market enhancement policies.

The less organized markets are, and the less complete the information available, the greater will be the need for State involvement in development financing. In theory, as table 2 shows, microenterprises and small and medium-sized firms should be given high priority when any selective lending policy is applied.

## V

### Conclusion

If we apply a Keynesian approach, there are two problems with development finance:

- i) In the absence of appropriate finance and funding institutions, such as the universal banks in Germany or long-term asset markets, rising credit risk and the exposure of private-sector agents when outgoings exceed expectations can lead to bank credit rationing and dangerously increase the financial vulnerability of the agents involved in long-term financing (banks and productive investors). Institutional underdevelopment may, therefore, result in financially unsound development and, ultimately, in financial crises.
- ii) Information problems in development financing go beyond the conventional difficulties of poor information distribution (asymmetry). “Emerging” and innovative sectors, as well as small and medium-sized enterprises in general, find it hard to obtain credit because the information made available is unreliable for risk analysis purposes. They have little or no collateral and their client relationships with private-sector financial institutions, if they have any, are underdeveloped. Public-sector financing policies can consolidate production sectors, making their future issues of assets in private-sector markets more attractive. In other words: as these sectors consolidate, information problems in financial intermediation tend to diminish

in many cases, expanding the scope for private-sector intermediation of resources to finance accumulation.

The opportunity arising from this process can only be taken up on a large scale if the necessary funding institutions exist. This, in turn, requires policies to bring into being a regulatory and institutional system appropriate for the development of long-term bank and corporate securities markets in the private sector—including larger purchases of long-term private-sector assets by institutional investors. It is in this way that institution-building policies can generate development financing mechanisms that are more financially robust.

The early twenty-first century offers significant opportunities and encouragement for policy action to create sound development financing mechanisms. Firstly, the financial markets (particularly international ones) changed considerably in the 1980s and 1990s, bringing in new methods of raising capital (securitization) and segmenting risk (derivatives, for example). Secondly, recent events in the financial markets have opened up the possibility of applying longer-term institutional development policies aimed at strengthening the role of institutional investors and long-term securities markets in the financing of larger firms that can more easily access these markets.

Nonetheless, the difficulties have not diminished. At a time when the possible routes towards development are changing and external financing is



becoming ever scarcer and more volatile, the availability of sufficient domestic financing with the required maturities is becoming a prerequisite for financially sustainable development. As Stiglitz (1993)

states, the dilemma now is not whether the State should intervene, but how best it can do it.

(Original: Portuguese)

#### Bibliography

- Acevedo, R. (2000): *Banca de desarrollo: paradigmas en el nuevo milenio*, Lima, Latin American Association of Development Financing Institutions (ALIDE).
- Akerlof, G. (1970): The market for "lemons": qualitative uncertainty and the market mechanism, *The Quarterly Journal of Economics*, vol. 84, No. 3, Cambridge, Massachusetts, The MIT Press.
- Amsden, A. and Y. Euh (1990): *Republic of Korea's Financial Reform: What Are the Lessons?*, Discussion Paper, No. 30, Geneva, United Nations Conference on Trade and Development (UNCTAD).
- Andersen, T.B. (1983-1984): Some implications of the efficient capital markets hypothesis, *Journal of Post Keynesian Economics*, vol. 6, No. 2, New York, M.E. Sharpe, Inc.
- Aoki, M., K. Murdock and M. Okuno-Fujiwara (1997): Beyond the East Asian miracle: Introducing the market enhancing view, in M. Aoki, M. Okuno-Fujiwara and H. Kim (eds.), *The Role of Government in East Asian Economic Development: Comparative Institutional Analysis*, Oxford, Oxford University Press.
- Carvalho, F.J.C. (1992): *Mr. Keynes and the Post Keynesians: Principles of Macroeconomics for a Monetary Production Economy*, Aldershot, Edward Elgar.
- Díaz-Alejandro, C. (1985): Good-bye financial repression, hello financial crash, *Journal of Development Studies*, vol. 51, No. 3, London, Taylor & Francis.
- Dosi, G. (1990): Finance, innovation and industrial change, *Journal of Economic Behavior and Organization*, vol. 13, Amsterdam, Elsevier Science.
- Feeney, P.W. (1995): *Securitization: Redefining the Bank*, New York, St. Martin's Press.
- Gersovitz, M. (1988): Saving and development, in H.B. Chenery and T.N. Srivasan (eds.), *Handbook of Development Economics*, Amsterdam, North-Holland.
- Gertler, M. (1988): Financial structure and aggregate economic activity: an overview, *Journal of Money, Credit, and Banking*, vol. 20, No. 3, Columbus, Ohio, Ohio State University Press.
- Gurley, J. and E. Shaw (1955): Financial aspects of economic development, *American Economic Review*, No. 45, Nashville, Tennessee, American Economic Association, September.
- Howells, P. and K. Bain (1997): *The Economics of Money, Banking and Finance*, Harlow, United Kingdom, Addison Wesley Longman Limited.
- Jaramillo-Vallejo, J. (1994): Comment on the role of the State in financial markets, *Proceedings of the World Bank Annual Conference on Development Economics 1993*, Washington, D.C., World Bank.
- Keynes, J.M. (1936): *The General Theory of Employment, Interest and Money*, London, Macmillan/Cambridge University Press.
- \_\_\_\_\_ (1937): The "ex-ante" theory of the rate of interest, *The Economic Journal*, Oxford, Blackwell Publishing, December.
- Lewis, M.K. (1992): Modern banking in theory and practice, *Revue économique*, vol. 10, No. 2, Paris, Fondation nationale des sciences politiques.
- Malkiel, B.G. (1994): Efficient market hypothesis, in P. Newman, M. Milgate and J. Eatwell (eds.), *The New Palgrave Dictionary of Money and Finance*, London, Macmillan.
- McKinnon, R.I. (1973): *Money and Capital in Economic Development*, Washington, D.C., The Brookings Institution.
- Minsky, H.P. (1982): The financial-instability hypothesis: capitalist processes and the behaviour of the economy, in C.P. Kindleberger and J.P. Laffargue (eds.), *Financial Crises*, Cambridge, Cambridge University Press.
- Moreira, M.M. (1995): *Industrialization, Trade and Market Failures*, London, St. Martin's Press.
- Pollard, S. (1964): Fixed capital in the industrial revolution in Britain, *The Journal of Economic History*, vol. 24, No. 3, New York, Cambridge University Press, September.
- Schumpeter, J. (1939): *Business Cycles: A Theoretical, Historical and Statistical Analysis of the Capitalist Process*, New York, McGraw-Hill.
- Shaw, E.S. (1973): *Financial Deepening in Economic Development*, New York, Oxford University Press.
- Sobreira, R. and R. Studart (1997): Racionamento de crédito, *Anais do XXV Encontro de Economistas da ANPEC (Recife, 10 a 12 de Dezembro de 1997)*, December.
- Stiglitz, J.E. (1993): The role of the State in financial markets, *Proceedings of the World Bank Annual Conference on Development Economics, 1993*, Washington, D.C., World Bank.
- Stiglitz, J.E. and M. Uy (1996): Financial markets, public policy, and the East Asian miracle, *The World Bank Research Observer*, vol. 11, No. 2, Washington, D.C., World Bank, August.
- Stiglitz, J.E. and A. Weiss (1981): Credit rationing in markets with imperfect competition, *American Economic Review*, vol. 71, No. 5, Nashville, Tennessee, American Economic Association.
- Studart, R. (1999): Financiamento do desenvolvimento: duas visões alternativas, in G.T. Lima, J. Sicsu and L.F. Paula (orgs.), *Macroeconomia moderna*, São Paulo, Ed. Campus.
- \_\_\_\_\_ (2000): *Pension funds and the financing productive investment: an analysis based on Brazil's recent experience*, Financiamento del desarrollo series, No. 102, LC/L.1409-P, Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC). United Nations publication, Sales No. E.00.II.G.83.
- UNCTAD (United Nations Conference on Trade and Development) (1996): *Trade and Development Report, 1996*, UNCTAD/TDR/16, Geneva, United Nations. United Nations publication, Sales No. E.96.II.D.6.
- United Nations (1999): *World Economic and Social Survey, E/1999/50/Rev.1*, New York. United Nations publication, Sales No. E.99.II.C.1.
- Vittas, D. (1998): Institutional investors and securities markets: Which comes first?, document presented at the Annual World Bank Conference on Development in Latin America and the Caribbean (ABCD LAC) (28-30 June 1998, San Salvador, El Salvador).
- Vittas, D. and Y.J. Cho (1997): Credit lessons from Japan and Korea, *The World Bank Research Observer*, vol. 11, No. 2, Washington, D.C., World Bank.
- World Bank (1994): *The East Asian Miracle*, New York, Oxford University Press.
- Zysman, J. (1983): *Governments, Markets, and Growth: Financial Systems and the Politics of Industrial Growth*, Oxford, Martin Robertson.