The Government's Role in Japanese and Korean Credit Markets: A New Institutional Economic Perspective

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This paper discusses the effectiveness of credit policies during the early stage of economic development in Japan and Korea. We examine the importance of institutional arrangements for managing credit policies in these two countries. We emphasize participatory government intervention, where credit policies could be viewed as part of an internal allocation mechanism: government, banks and large industrial firms may be said to have formed what we call a "government-led internal organization" (GLIO). We examine the theoretical foundations of this view and discuss the implications for the efficiency of credit allocation. We argue that, in early economic development, such a participatory approach may have helped overcome pervasive market imperfections. But there were also significant dangers—problems of entrenched interests and institutional inertia. In both countries, the relative importance of GLIO gradually diminished as competitive capital markets and large conglomerates ("privately-led internal organizations" or PLIO) expanded with economic growth. (*JEL* Classifications: G18, N25, O53)

I. Introduction

The remarkable success of the East Asian economies has refueled old

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debates on the role of the government in economic development. One significant branch of this debate has centered on the merits of government intervention in credit markets: can it successfully promote industrialization and growth in the early stage of economic development?

The only simple answer to this question is that there is no simple answer. Throughout the world, examples abound where government intervention in the credit market has led to large loan defaults, inefficient financial institutions, and poor resource mobilization without encouraging growth in targeted sectors or industries. If we compare credit programs and interest rate policies in African, Latin American and East Asian countries, it is difficult to find clear and significant differences in the individual program structures. This leads us to examine more fundamental aspects of credit market intervention.

Our research focuses on the nature of the policy environments in which the programs were implemented in Japan and Korea. We discuss the Korean experience during the period of 1960s to 1980s, and aspects of the Japanese experience 1930s-60s, i.e., the rapid industrialization period. What we believe is of central importance, but is often not well understood, is that the success of credit policies is strongly influenced by how they are managed and what type of institutional environments support them. Although countries may target the same industries and borrowers, results may differ, depending on how closely credit programs are monitored, how well they are managed and how carefully they are coordinated with other policy measures. The effectiveness of credit policies depends on targeting the right groups of borrowers, on monitoring the performance of these borrowers and, more broadly, on crafting an environment that ensures the success of the supported firms or industries. Furthermore there is a need for flexibility of the policy instruments and a willingness to adjust policies in response to changing economic circumstances. All these aspects of effective policy management and implementation rely heavily on the institutional environment, the formal and informal arrangements that establish the relationship between the government, business, and financial institutions.

In the two East Asian countries we consider, during their earlier stages of economic development, the government played a significant role in the credit market. We argue that there were important common elements in the nature of the government's involvement in the credit market. Intervention was based on a participatory view on the role of the government. The government, the financial sector and the large industrial firms shared a common responsibility in the allocation of credit. We call this affiliation the "government-led internal organization" (GLIO).[1]

Within the GLIO, there was much emphasis on communication, coordination and cooperation. These relationships were supported by institutional arrangements such as deliberative councils, industry associations, federation of industrialists, monthly export promotion meetings, etc. In this paper, we attempt to explain how and why these aspects should be considered central to the understanding of the effectiveness of credit policies in Japan and Korea.

We focus mostly on examining the effectiveness of credit policies in terms of their "internal consistency": How well were policies implemented? What were the incentives to the government, to banks and to firms? And in what sense do information and decision rights matter? We also consider aspects of the external consistency of credit policies, i.e., how well credit policies in this institutional environment were integrated into the broader structure of industrial and macroeconomic policy making.

While in both countries aspects of participatory government and aspects of internal organization were prevalent, the actual institutional environment, and especially the degree of government intervention, differed significantly. In Korea, the government owned the major commercial banks and specialized banks. The government employed tight controls on interest rates and directed loans to support specific sectors and industries, allocating more than half of bank credit in directed programs. In Japan, government intervention in the credit market was less extensive and more indirect. The policy directed loans were extended mainly by government-owned specialized financial institutions, such as Japan Development Bank (JDB). The commercial banks were privately owned, but the government indirectly influenced their lending. The government controlled interest rates, and overall a substantial amount of loans were directed by policy.[2]

Another aspect we stress is the dynamics of government intervention in the credit market. How did the role of the government in credit markets change in the process of economic development? We argue that the comparative advantages of the governments' involvement in Japan and Korea were greatest at the early stages of their economic develop-

[1]This concept is similar to Lee (1992).

[2]See Japan Development Bank and Japan Economic Research Institute (1993).

ment. But as their economies approached levels of more developed economies, the centrality of governments became a hindrance to further growth. While some structural transformations were clearly visible, and in particular a shift from the GLIO to an economy with several large conglomerates and more market-based system, we also argue that the efficient devolutionary process faced opposition from entrenched interest in bureaucracy and business community, which was favored by the status quo and adamant to institutional change.

The central purpose of this paper is therefore to gain a greater conceptual understanding of the essential elements of the institutional structure that supported government intervention in the credit market in these two countries. The underlying hypothesis is that this institutional arrangement explains at least some of the differences between the Japanese and Korean experiences with credit policies, which seemed to have at least some success, and the many experiences in other developing countries, which have been considered failures.[3]

II. Further Motivation

Our emphasis on understanding the institutional environment when considering effectiveness of credit policies is unlike much of the previous analysis on credit policy. Consequently, it may be useful to provide some further motivation before going into the main part of the paper. We review four broad reasons why we stress the institutional approach.

First, the debate on the effectiveness of government intervention in the credit market has often focused solely on issues of financial repression. This analysis focuses on situations where government controls over interest rates result in artificially low or even negative real rates, and where banks make substantial loans to the government or to government-designated sectors. The lower the interest rate ceilings and the larger the proportion of funds directed, the heavier the financial system is said to be repressed.

In practice, however, the dimensions of government control over the financial system are more complex. In assessing the role of government in the credit market, one should beware of applying too simplistic measures. In many cases, the government influence over the credit alloca-

[3]To address these important issues more directly, a proper comparative analysis would be required. This is beyond the scope of this paper. This paper chooses to concentrate on only one side of the comparison.

tion could be much stronger even though the interest rate is mildly repressed, and the amount of explicitly labeled selective credit programs are relatively small. For example, Japan or Taiwan (China) had reasonably high real interest rates, and relatively few (explicitly labeled) directed credit programs compared to many other developing countries during the early period of economic development. Nevertheless, this does not mean that the role of government in credit allocations was less significant in Japan or Taiwan (China) than, for example, in Sierra Leone or the Philippines. There the government could exercise only a limited degree of influence over commercial banks, even if interest rate levels were more severely distorted and selective credit programs were more complicated. Similarly, one may not assess the degree of government intervention in a country over time by simply looking at one or two variables. For example, Korea doubled the level of interest rate, yielding highly positive real rates in 1965, which was often interpreted as financial liberalization. But in fact this strengthened the role of government in credit allocation by shifting financial resources from the unregulated curb market to the banks which were under the tight control of the government.[4]

Second, economists tend to dichotomize market competition and government intervention, and tend to equate market competition with efficient allocation and government intervention with distortion. In practice, many transactions, even in the most free competitive market economies like the United States, are made within internal organizations, such as large industrial firms, at non-market determined prices. Such transactions are based on administrative decisions, not on prices.[5] Internal organizations and internal markets exist mainly to reduce the transaction costs, risks and uncertainties that prevent the establishment of efficient markets.

We can view government control of the financial system in a similar context. In other words, in the early stage of economic development, when market imperfections are pervasive and only few banks and industrial firms are important, an economy may find it more efficient to form a kind of internal capital market and direct credits by adminis-

[4]See Cho and Kim (1993).

[5]To take a simple example, a businessman would not contract for a typist every time he needed a document to be typed, searching for the lowest bid from several typists. Instead, the businessman would employ a typist. Thus, internal organization is an efficient outcome in the presence of pervasive market imperfections, and high transaction costs.

trative decisions. Viewed this way, government control of credit allocation or "financial repression" might be interpreted as an efficient response to pervasive credit market imperfections in the early stages of development.

Third, an issue which has not been paid much attention in the current debate on the effectiveness of credit policy is the effectiveness of government's "economic management". For business firms, good management is said to be the "alpha and omega". The performance of firms, although they are producing the same kinds of product and employing the same input mix, can be widely different, depending on the effectiveness of management. Although economists nowadays often stress the importance of appreciating good firms vs bad firms or good workers vs bad workers,[6] they have not come to fully recognize that there could be good and bad government or good and bad policy implementation. Indeed, while economists have recognized that there are some merits for government intervention in certain areas, they have often compared these to a simplistic notion of government failure. What needs to be studied is precisely what contributes to "good economic management" or "good policy implementation." Good management, even for an economy, is not always least management. It requires effective incentives schemes to motivate the members of the organization, and close monitoring of their performance. We argue that government control over credit should also be understood in light of governance structures. Credit allocation was used as a powerful instrument for governance control over industrial firms in Korea, and to some extent, in Japan. Again we argue that the effectiveness of using credit for such purposes depended to a great extent on an appropriate institutional environment.

Fourth, the role of government and the merit of government intervention should be understood in a dynamic context. In the early stage of development, when many markets are missing, and the existing markets are highly imperfect, and when private sector institutions are poorly developed, the government can play an important role in overcoming some of these problems. However, in the later stage of economic development, when the private industrial sector becomes more sophisticated, the merits of government intervention may diminish sig-

[6]The recent debates about corporate control dwell extensively on this issue. This recognition has also become the basis for a large part of the asymmetric information theories.

nificantly. Effectiveness of credit policies should always be weighed against the specifics of the economic backdrop.

The remainder of the paper is organized as follows. The third section briefly reviews the theoretical rationale of government intervention in the credit market. The fourth section describes the main features of the institutional settings in Japan and Korea, the incentive environments for banks and industrial firms, in which credit policies were implemented. The fifth section, based on recent theories of internal organization, provides an in-depth analysis on how we can try to understand some of the unique aspects of the Japanese and Korean experience with credit market interventions. The sixth section discusses the diminishing merit of credit policies as their negative effects become more significant in the process of successful development. The last section summarizes and concludes the paper.

III. The Role of Government in Credit Markets: A Theoretical Background

In this section we address three questions that relate to whether government intervention in the credit market could be an effective measure to facilitate industrialization and growth. First, does the government have a potential role in improving the resource allocation in the economy? Second, if so, should the government's role be to direct credit policy, or should other measures such as a lump sum tax/subsidy be employed to improve resource allocation? Third, if the government should use direct credit policy, under what circumstances could credit policies be an effective instrument for industrial development?

A. Recent Economic Theory on the Role of Government

The fundamental theorems of welfare economics (Arrow-Debreu) have formed the theoretical underpinning to the *laissez faire* view of the role of government. Under certain assumptions, private markets efficiently allocate resources; therefore government intervention is unnecessary and could be harmful. Distancing itself from this paradigm, a large body of literature has developed on identifying market failures, such as externalities, public goods and increasing returns to scale. Market failures give a fairly apparent and well-defined role to the government for specific policies.

Recently, economists have focused on market imperfections, rather than on market failures,[7] where asymmetries of information and other transaction costs obstruct the smooth functioning of the price system. The argument applies to credit markets, where transactions differ in important ways from the exchange of neoclassical goods. Since credit is only a promise rather than a commodity, credit markets require a great deal of information and strong institutions to enforce contracts. The discussion in the recent literature on imperfect capital markets can be summarized broadly in four conclusions.[8] First, some classes of borrowers may be excluded from the credit market (in other words, credit may be rationed). Second, an imperfect capital market may provide insufficient risk-sharing, so that borrowers become excessively risk-averse. Third, the capital market may exert pressures on borrowers to maintain high short-term profitability at the expense of long-term investments (in other words, short-termism). Finally, the public good aspect of monitoring, and the problems of delegated monitoring, may result in too little and too diffuse monitoring being provided by the market. These conclusions give a *potential* role to the government to improve on market failures and imperfections.

Despite the recognition of market imperfections, however, the question remains on the government's role in modern economic theory: why should the government go where private markets fear to tread? Even if a government is aware of biases in credit allocation, it may not be able to overcome the problems of asymmetric information and transaction costs. Therefore, although current economic thinking recognizes the potential for government intervention in the financial market, it does not necessarily support government intervention to alleviate market imperfections.

B. Why is Intervention in the Credit Market Necessary or Preferred?

If a government is in a sufficiently good position to identify and address the problems that arise from market imperfections, why should government use credit supports (in other words, preferential access to credit or subsidized interest rates) to address these problems? Why can't market failures be addressed by other mechanisms, such as fiscal incentives or input/output subsidies? These questions

[7]This distinction is used for expositional clarity, but neither of these terms are used consistently in the literature.

[8]See Jensen and Mecklin (1976), Stiglitz and Weiss (1981), Stiglitz (1985), Cho (1986b) and Hellmann (1992). For a good general discussion, see Stiglitz (1992).

have not been discussed extensively in the literature. Here we provide some explanations.

First, there are cases where problems originate in imperfect financial markets. For example, when a firm faces a binding financial constraint, such as a cash constraint due to a temporary external shock, funds can be obtained either in the form of capital (i.e., issuing new shares) or credit. However, transaction cost involved in raising funds in the capital market could be prohibitively high for firms in developing countries, especially when current profit trends are bad in view of external shock. Also, when product market failures arise, they are often linked to capital market failures. Credit policies could be very flexible and effective instruments to address these problems.

Second, credit policy as an industrial policy instrument does not simply depend on the amount of support, but on the timing of the subsidy and the resulting flexibility. Credit policies may permit subsidies to be allocated flexibly, and may take into account the performance of supported firms or industries. Credit support can avoid the "lumpiness" and "asset specificity" (Williamson 1985) which are often entailed with fiscal supports. Since many loans must be refinanced, well-measured refinancing decisions provide incentives and determine the ongoing selection of who receives support: good performance can be rewarded by rolling over existing debt or extending new debt, and bad performance or the diversion of funds can be punished by reducing or terminating support.[9] Furthermore, in an ongoing credit relationship the government has an interest in recuperating its loans, and the subsidized firm has an interest in continued support. In the language of Williamson (1985), the two parties create "mutual hostages". The government as creditor also obtains some explicit governance rights over the subsidized firms. Therefore, it may have less moral hazard effect than grant or tax subsidy.

Third, apart from purely economic reasoning, credit policies also

[9]The benefits from the flexibility of credit policies cannot be taken for granted. Poor information may turn potential effectiveness into a large hazard; renegotiation and refinancing decisions involve delicate trade-off. In order to make good use of credit as a selection and incentive device, creditors must understand two crucial aspects of a firm's performance. First, to provide an effective incentive scheme, the creditor should be able to distinguish external factors from managerial performance. Second, to make effective selection decisions among the external factors, creditors should be able to distinguish cyclical from structural influences, and they should have good information on whether financial distress is due to temporary or permanent problems.

have the advantages of political ease of implementation, and a certain degree of autonomy from social and political pressure.[10] Budgetary measures, such as fiscal incentives, must be approved by the legislative branch. Since directed credit is decided upon by the government or the central banks, it may benefit from greater administrative flexibility and (limited) insulation, compared to tax measures, from politicization of the decision making process. Governments may be able to formulate policy and policy changes faster, especially for the sectors that should become the beneficiaries of government policies. Tax administrations in developing countries are often poorly developed and are unlikely to be able to effectively implement industrial policies.

C. Under What Circumstances Could Credit Policies Be Effective?

In order to successfully implement credit policies and promote industrialization and economic growth, government commitment should be firm and visible, and should be supported by strong political leadership.[11] The Japanese and Korean economies succeeded in mobilizing national consensuses for economic growth as their highest national goals. The political environment, the stability of the administration, and the government organizational structure (for example, the Economic Planning Board (EPB) of Korea, the Ministry of International Trade and Industry (MITI) and the Ministry of Finance (MOF) of Japan) might have contributed to the process. In these circumstances, policy makers were able to use longer planning horizons, thus problems of short-termism were alleviated and stronger commitments (the "repeated game" effect) were made, both of which were essential to implement the growth policies. The governments also protected their economic policy making and implementation from social and political influences that could have pushed for more redistributional goals.

Furthermore, macroeconomic stability (at least avoidance of hyperin-

[10]This, of course, depends on the government's administrative structure, the political environment and its kind of leadership.

[11]Government commitment is less trivial than it may sound. This is perhaps one of important factors that can explain the different in the impact of credit policies on economic growth between East Asia and South Asia. Many credit policies have been criticized for not achieving economic growth, when their true (although possibly covert) purpose was to redistribute and to meet the interests of vested groups. If credit policies fail because of these reasons, it says little about whether directed credit policies were ineffective *as a tool for expediting economic growth.*

flation) was crucial for reducing the volatility of relative prices for long-term investment planning, mobilization of financial savings, and establishing the creditability of the government industrial policy goals. Without macroeconomic stability, credit interventions typically entail larger than intended subsidies, and they are more likely to be subject to hard-to-detect corruption and abuse. In highly unstable macroeconomic environment, credit policies can have unintended effects: as witnessed in many other developing countries, they may then add to the instability and be in the way of financial deepening and growth.

However, macroeconomic stability and firm government commitments alone do not seem to have been sufficient for the credit policies to contribute to high economic growth.[12] *We argue that in addition, governments must be able to effectively manage and implement the credit policies to serve their original purposes. This required well established institutional settings to identify problems promptly, to monitor effectively and to transmit specific policies into desired goals.*

It is on these arguments that we want to focus on in the next two sections. We begin by discussing the institutional settings in Japan and Korea, that may have significantly strengthened the positive aspects of credit policies.

IV. Institutional Settings and the Effectiveness of Credit Policies in Japan and Korea

In this section we discuss the experiences of credit policies in Japan and Korea. We are looking at mainly the period of postwar(up to 1960s) Japan and (from the 1960s to the early 1980s) Korea, i.e., rapid industrialization period. Our main focus is on the institutional settings which supported the effective management and implementation of credit policies. We emphasize the interrelations between the relevant decision making units: the government, banks and industrial firms. We characterize this institutional settings by the GLIO.[13] It should however be noted up front that the notion of a GLIO should be understood somewhat differently in Japan than in Korea. In Japan the interactions in the GLIO are based much more on aspects of horizontal coordina-

[12]There was also the issue of choosing the right policies-especially the right mix of policies. We address this problem briefly in section IV. D.

[13]We explore the theoretical foundations to this concept in greater detail in section V and VI.

tion between fairly autonomous decision makers, whereas in Korea the GLIO has a more centralistic and coercive nature. Nevertheless we find the concept of the GLIO useful to highlight similarities in the institutional settings.

Section IV.A provides a broad overview. Section IV.B and IV.C look at the incentive environment of banks and firms respectively. Section IV. D briefly discusses the some issues of how credit policies interacted with other policy instruments.

A. Relationships between Government, Banks and Firms in Japan and Korea

This section traces out the broad contour of the institutional relationships between the government, banks, and industrial firms in Korea and Japan in the early stage of economic development. To simplify the discussion, we limit ourselves to a very stylized picture and ignore many details and differences between the two countries.[14]

1) Japanese Structure

The banking sector can be divided into two major components. There were the large government financial institutions such as the JDB, the Export-Import Bank of Japan (EXIM), and, at least before the war, the Industrial Bank of Japan (IBJ).[15] These channeled loans under the government's industrial policy framework. In addition to these, there were commercial banks, which were privately owned. The government and the central bank (Bank of Japan (BOJ)) exercised strong influence over the entire banking system through its power of licensing entry and establishing branches in specific areas, through its discretionary purchases of debentures issued by the banks, and through the "overloans" provided by BOJ. Particularly during the period of postwar rapid economic growth (1950's and 1960's), directed credit constituted a large share of total credit (Nakamura 1983; Noguchi 1992; JDB/JERI 1993).[16]

[14]Further useful references for these countries include Aoki (1988,1990, 1992), Cho (1986a, 1989, 1990), Cho and Kim (1993), Cole and Patrick (1986), Drake (1986), Hong and Park (1986), Horiuchi (1984), Horiuchi, Packer and Fukuda (1988), Kato et. al. (1993), Johnson (1982), Kim and Utterback (1989), Lee (1992), Lim (1989), Nam, D.W. (1992), Nam, S. (1992), Noguchi (1992), Prowse (1992), Sakakibara and Feldman (1983), Sheard (1989, 1991), Vittas and Wang (1991), Wade (1990) and the World Development Report (1989).

[15]After the war, the IBJ was privatized, but it maintained very close contacts with the government

The postwar directed credit included the "fiscal and loan investment programs" operated by government financial institutions which alone accounted well over 10 percent of loans by whole financial institutions. In addition, there were preferential credit programs extended by commercial banks which were funded by the central bank's (BOJ) rediscount facility to support export, import, manufacturing and agriculture sectors. Total BOJ lending to commercial banks and other financial institutions for these purposes amounted to more than 10 percent of total money supply (M2) in the early 1950s. The heavy government intervention in credit allocation during the wartime influenced the postwar relationship between the government and banks, which continued close consultation and maintained a cooperative relationship.

In the prewar period, there were many public firms, but after the 1945, most of the industrial firms were privately owned, except for some key strategic industries. Banks and firms were interrelated through direct ownership within larger family groups in the case of prewar Zaibatsus, and through substantial ownership links in the case of postwar Keiretsus. These large industrial conglomerates have assumed dominant positions in the Japanese economy. But even firms that did not belong to a Keiretsu had "main banks" which held equity participation and representation on the firms' boards. Small firms typically had a subcontracting relation with a large firms which gave the latter certain control over their business. There were various "deliberative councils" which were represented by the managers of industrial firms, bankers, and former senior government officials which provided channels for discussion of policies and mobilized consensus for the policies put forward by the government. Various industry associations also transmitted the flow of information and policy objectives between the industries and the governments. The government had a complicated web of leverages to control or influence the behaviors of firms and banks.

[16]During the war period also, the government had extensive intervention in the credit allocation. The government began intervening heavily in credit allocation in the 1930s for the promotion of heavy and chemical industries, at first through the IBJ, and then later, also through the private commercial banks. The Temporary Funds Adjustment Law, enacted from 1937 to the end of World War II, directed about 70 percent of total credit to industrial sector: 31 percent to machinery, 21 percent to metal, 11 percent to the chemical industry, as versus, say, 1 percent to food. See Nakamura (1983), pp. 299-300.

[17]Even after their privatization in the early 1980s, the government continued to exercise strong control over their management and credit allocation.

2) Korean Sturcture

In Korea, banks (both specialized and commercial ones) were owned directly by the government.[17] More than half of total bank credit was directed explicitly or implicitly under various types of selective credit programs. In the early stages of economic development (1950s and 1960s), public enterprises were quite dominant in the industrial sector. They were gradually privatized, being taken over by large industrial groups (Chaebols) which acquired dominant roles in the Korean economy starting in the 1960s. The Korean industrial sector could be broadly divided into, on the one hand, about 30 to 50 large Chaebols[18] which had firms producing goods and services in almost all industries, and, on the other hand, a still large number of smaller firms. As in Japan, many of the smaller firms had subcontracting relations with large firms. The large industrial groups typically had a close relationship with the government. They strongly depended on its bank loans for the expansion of their business. Korea also had various "industry associations" which facilitated the consultation of policy direction and implementation, channeled market information to the government, and assisted in the effective transmission of policy goals to industrial activities. It also had "Monthly Briefings on Economic Trends" and "Monthly Export Promotion Meetings" which were chaired by the President and attended by senior government officials, bankers, business and labor-union leaders. By attending the economic briefings presented by the EPB, all the participants shared a common understanding of current economic conditions and issues.

In the monthly export promotion meeting, the Ministry of Trade and Industry (MTI) would make reports not only regarding the progress on achieving annual export targets, but also the problems and difficulties facing the industries and firms in meeting their export goals. The performance of exports were reviewed item by item and country by country in the meeting. As in the case of the Monthly Economic Briefing Meeting, decisions were often made on the spot as to how problems might be addressed. In addition, the meetings were utilized to recognize those individuals and firms who had made outstanding contributions toward achieving export targets. After discussions about the bottlenecks for exports or progress of specific projects at these meetings,

[18]As of 1985, the largest 30 Chaebols received more than a quarter of the total bank credit and were responsible for more than half of the manufacturing output.

the President gave instructions as to how the problems should be resolved, and asked all participants, including government officials, bankers, and the representatives from the private sector, for their cooperation and input. These meetings constituted a forum, both among ministries and between the government and the private sector, where progress towards achieving policy goals was monitored and where consensus could be achieved on ways to deal with emerging problems.

We may say broadly that the GLIO involved the government, bank, and large industrial groups in Korea. A very similar arrangement can be noted for Japan. However, for postwar Japan, we witness a looser affiliation between the government, banks, and large industrial firms. The GLIO was complemented by strong private internal organizations that linked the banks and industrial firms more closely. In postwar Japan, the role of government was more indirect, where the private sector could make mostly independent decisions, but cooperated with each other and through the government. Furthermore, in both countries the role of the government diminished as the countries industrialized and as the private sector expanded its own internal market. This devolutionary process happened earlier, and went further in Japan than in Korea.

B. The Incentive Environment for Banks

The institutional setting in Japan and Korea provided different incentive structures to banks and firms from what normally can be expected under the free competitive financial market. In Korea, bank ownership implied that the government could dictate the objectives of bank operations closely. Since bank managers were appointed by the government, their incentives were determined by the hierarchy. Performance evaluation was not based on narrow indicators, such as profit maximization; a manager's most important incentive was to conform to the policy guidelines established by the government. That is, the manager carefully executed government directives and prudently avoided visible failures such as large loan defaults.[19]

The profit motive for banks may not be always consistent with the goal of long-term economic growth as was mentioned in section IV. This concern, with that of financial instability, led the government not

[19]The same situation prevailed in Taiwan (China), where all banks were owned by government.

to emphasize market competition and profit-maximization among banks. Instead, maximization of deposit mobilization to support industrial investment was the major objective set to bank managers. With controlled interest rates, which were set to reduce the risk of financial instability and to encourage investment, deposit mobilization needed particular efforts by the banks.

On the lending side, the interest rate controls prevent lenders from charging appropriate risk premia, resulting in a bias for low default risk projects irrespective of the expected economic return of projects. But there were directed credits to certain targeted high risk sectors, so that total risk taking within the GLIO was probably higher than what would have resulted in an otherwise imperfect capital market. There were moral hazard problems, however, for the banks managers since they would not be directly held responsible for all bad loan decisions. Nevertheless, they were pressed to monitor their loans closely, were held directly accountable for the success of their discretionary lending and were encouraged to make the directed loans profitable.[20]

Compared to Korea, postwar Japan offered smaller subsidies and the directed credits were smaller. Japanese commercial banks also operated in a more competitive environment. In postwar Japan, the old industrial conglomerates (Zaibatsus) quickly reemerged under somewhat different forms (Keiretsus), and industrial firms clustered around main banks, with which they had a close monitoring relationship. The government may have felt less compelled to intervene by directing credit explicitly since this institutional environment could overcome market imperfections to some extent. But the incentive environment of banks was still influenced by the government. Private banks were given incentives to support the government initiatives, such as lending to the same firms or sectors as the government financial institutions by participating in syndicated loans organized by the JDB. The private banks also paid close attention to the administrative guidance of the MOF and BOJ because they depended on discretionary decisions of the govern-

[20]The moral hazard problem of bad loans was however far from being completely solved. The Korean government had to use interest rate concessions and other credit intervention repeatedly to salvage ailing parts of the highly leveraged corporate sector (Cho and Kim 1993).

[21]In Japan, more so than in Korea, the exact extent and nature of government influence over the financial sector is hard to assess. The discretionary nature of government policy involves many degrees of subtlety, and lack of transparency, at least to outside observers.

ment, such as branch licensing and overloans.[21]

One aspect common to the Japanese and Korean financial systems is cooperation and bargaining (which are attributes of the GLIO) among stakeholders.[22] Cooperation or bargaining has been used during times of financial distress, where stakeholders have stronger incentives to rescue and restructure ailing firms, rather than force socially unproductive liquidations that benefit some stakeholders at the expense of others.[23] The coordination among stakeholders in normal times is equally important. By cooperating, stakeholders can exercise stronger monitoring; all stakeholders benefit from one stakeholder's monitoring activity. Coordination is also important to exercise influence over a particular firm: a united front of stakeholders represents greater power to affect a firm's governance. Cooperation and coordination among stakeholders allows for stronger incentives to firm managers to be implemented. Inherent contradictions in the formulation of incentives (for example, debt-holders would like to provide more conservative incentives than equity-holders) are more likely to be reconciled, and tighter control over the firm's governance are likely to make incentive structures more effective.

C. The Incentive Environment for Firms

The government's position as a creditor (either directly through bank ownership as in Korea, or indirectly through influence over the banking system as in Japan) can generate different incentive structures for firms than those that could have been expected without the government. Asset or growth-maximization of firms can be understood as a strategy of long-run profit maximization in the presence of dynamic increasing returns to scale and technological externalities. If an emerging firm or industry is operating on a learning curve, short-term profits can be poor. However, creditors in the competitive market tend to induce firms to bias their investment away from projects with long-term pay-off horizons toward projects with shorter horizons.[24]

[22]By stakeholders we mean all external agents affected by the performance of the firm: equity and debt holders, some suppliers (often holders of trade credit) and possibly the government.

[23]However, the distribution of responsibilities differs between countries. In Korea, the government assumed a much more explicit role. In Japan, responsibilities for a rescue operation were delegated to the main bank, which needed to defend its reputation (see Sheard 1991; Aoki 1992).

[24]See Hellmann (1992).

Furthermore, the government as a creditor can be a more effective monitor and enforcer of a firm's behavior than private creditors. Private creditors in the competitive market can withdraw credit if they are not satisfied with a firm's performance. The withdrawal of credit may not be crucial for the firm's survival if the firm can approach other creditors or other sources of financing. However, if the government is dissatisfied with a firm's performance and withdraws its support, the firms may not survive since the government might not only cut off official credit, but also use further punitive measures against the borrowers.[25] Therefore, the government can become a more powerful creditor in the GLIO context than private creditors in enforcing the behavior of borrowers to conform to the interest of creditors.

The government can also become a more effective risk partner than private investors. Once a firm follows the government's policy guidance, the government becomes an implicit risk partner in the investment outcomes. The government secures continued credit support for firms, and bails out firms in financial distress. The government can become a more powerful risk partner by combining various policy measures with credit support to alleviate firm losses during economic downturns or temporary poor performance. Equity finance is normally thought to provide risk sharing to firms. In the GLIO context, bank credit could constitute the source of risk capital. Even with high leveraged financial structures, large industrial groups could make risky ventures and could use long-term perspectives in their investment decisions, given that there is implicit downside risk insurance by the government and banks.[26] In other words, the government-bank-industry coinsurance scheme has bank credit supplementing risk capital in the absence of a well-functioning equity market. This, however, also nurtured moral hazard, where firms overexpanded their investment and chose highly leveraged financial structures.

[25]This was especially the case in Korea. In Japan, the government had a much weaker influence on these matters.

[26]From the borrower's point of view, high leverage can be also viewed as insurance against bankruptcy. The more they borrow from the banks, the more the creditors (government/banks) are obliged to bail them out in the downside risk. On the other hand, the high leverage also strengthens the governance control by providing leverage to the creditor to the extent it can directly affect the survival of the firms.

D. The Policy Environment: Internal and External Consistency

Another important institutional aspect of credit policy is external consistency, that is, how well policies fit into the larger frame of government economic policies to support industrialization and development. While a complete treatment of the issues is beyond the scope of the paper, the institutional arrangement of the GLIO could have helped to achieve greater external consistency.

The Japanese and Korean governments achieved coordination among credit programs with closely related industrial and macroeconomic policies. If the domestic macroeconomic environment was hampered by a particular policy (for example, by high inflation or an overvalued exchange rate), losses began to appear in the GLIO's balance sheets. The government, in a comprehensive relationship with banks and firms, had clear information and incentives to redirect policies to benefit the GLIO. Losses by firms would be reflected in the growing nonperforming loans of banks, which would add to the quasi-fiscal deficit. Bad industrial and macroeconomic policies had at least some chance of being recognized and corrected swiftly within the GLIO.[27]

An outward-oriented economic policy and a competitive domestic industrial environment also checked the effectiveness of credit policies in Japan and Korea. Firms were fully exposed to competitive international markets for their products and keenly contested among large firms. The firms' success depended on expansion in foreign markets. Thus internal selection and incentive mechanisms in the GLIO were complemented with the external discipline from international markets, where the performance of firms provided important information for the allocation of credit within the GLIO. Japanese and Korean governments also avoided state-owned enterprises and monopolies, and ensured intense competition in the domestic market among large firms although the market share were highly concentrated by them.

V. The Internal Organization View of Credit Allocation

Effective credit policies in Japan and Korea—particularly in Korea—

[27]No organization is perfect. Indeed, the Korean government has been criticized for unduly neglecting small firms. This fits into the framework. Insofar as these small firms were not part of the GLIO, they could not benefit from the same attention from the government.

can be interpreted as part of an allocation process within an internal organization, as an attempt to overcome some market imperfections. In this section we discuss the analytical foundations of what we have called the GLIO.[28] Section V.A. examines the foundations of this concept and section V.B. discusses its implications.

A. Credit Policies as Internal Credit Allocation: Conceptual Issues

In the orthodox view of credit policy (and government policy), the government is an agent separated from the market transactions, and adjusts economic parameters, such as prices. Government failures, then, involve poor information, distorted incentives and opportunities for abuse and corruption among bureaucrats. This view, which dichotomizes the economy into a productive sector on the one hand and the government on the other hand, may not always be an appropriate way to understand the government's role, particularly in Japan and Korea. Instead, we propose a more participatory view of the government as an active leader in establishing and managing internal credit allocation.

What distinguishes internal allocations from those in markets? This have been the focus of considerable research in the literature on the theory of the firm and the theory of organizations, dating back at least to Coase (1937). His fundamental insight was that there may be costs of using the market, so that allocation occurring within firms (i.e., internal organizations) may be a way of overcoming high transaction costs in markets.[29] Coase considered the difference between markets and firms to be the use of the price system. This distinction is inadequate however, since prices may well be used within organizations (e. g., transfer prices), and market transactions may include non-price features (e.g., contractual side conditions). Another popular notion is that an internal organization is characterized by the centralization of control.[30] Again, this notion is insufficient, as it fails to recognize that one crucial aspect of internal organization is the ability to decentralize internally.

Rather than prices or centralization of control, modern economic the-

[28]This section develops an essentially static view of thc GLIO. In section VI we address the dynamic aspects.

[29]The subsequent literature, including the theories of market failures and imperfection discussed in section III. A, has given considerably more content to the concept of transaction costs.

[30]The Coasian notion of suppression of the price mechanism is then one possible but not necessary feature of an organization.

ory argues that markets and internal organizations differ in the way decision rights are distributed.[31] In the market, each participant holds decision rights, while in an internal organization, decision rights are held by a central unit that can impose decisions on the various parts of the internal organization. There are also some constraints on the center's ability to impose decisions and it may decide not to exercise many of its decision rights, or to exercise them selectively.

Consequently, in order to understand the concept of the GLIO, we need to recognize both the extent to which the government could exercise direct and indirect control over economic decision making and the extent of the constraints it faces. Government influence over decision rights concerned strategic planning, mainly investment decisions. The most important means of exercising this control is through credit allocation. By granting or refusing finance, governments could provide ongoing selection and incentives to borrowers. At the same time, we should recognize the limitations to government control. First, decision control is indirect and delegated.[32] Second, there is an important notion that if the government wants to use its control over credit allocation to expedite growth, the government depends fundamentally on the collaboration of banks and firms.[33] In a credit relationship, the lender is tied to the borrower because the lender wants to recover funds. The fact that banks and the government rely on firms thus gives firms important bargaining power. But decision control in the GLIO differs from the decision control found in private internal organizations or firms. In private transactions with complete property rights, ownership rights determine the control over decision rights. But with incomplete property rights or government interference, decision rights may be exercised without formal ownership. Within the GLIO, government con-

[31]Just as for every important theory, there is also considerable disagreement in the literature. Our description is based mostly on the ideas in Grossman and Hart (1986) and Williamson (1985). For further references on this topic, see also Milgrom and Roberts (1992).

[32]This corresponds closely to the "M-form hierarchy" (see Williamson 1985), an organization based on the idea that, apart from broad strategic planning, there should be considerable decentralization within the organizational structure. Units are grouped along functional criteria and given autonomy on how to achieve set objectives. In the GLIO, banks are responsible for implementing the broad guidelines of credit policies, but are given considerable freedom as to how they achieve this objective.

[33]Related to this is the notion that government interference must be perceived to be legitimate by private agents in order to be feasible or effective.

trol went beyond control of the public sector and beyond the formulation of parametric policies[34] to governance control. In other words, the government controls some decision rights commonly associated with ownership.

The resulting picture on the extent of governance control inevitably becomes vague. It is not clear where decision rights lie within the GLIO or how they are shared in commonly agreed decision making. The relationships within the GLIO (especially in Japan) are subtle, often implicit, and are not readily verifiable or observable to the outsider. More fundamentally, vagueness is an integral aspect of the GLIO. It is part of an evolving bargaining or strategic game between government, banks and firms, where the distribution of decision rights is neither well specified nor time-invariant.[35]

Having described the ways internal credit allocation differs from market allocation, we can formally define the GLIO as the nexus of all banks and firms that are under some partial government control, which derives mainly from and accompanies the allocation of credit.

B. Credit Policies as Internal Credit Allocation: Consequences

How does it matter that credit policies are implemented within GLIO? How does the allocation of credit differ from allocation in a market-based system? We look at the consequences of internal allocation along four aspects: risk-sharing, information structure, provision of incentives, and governance structure.

1) Risk-sharing

Improved risk-sharing is one of the most important justifications for internal organizations. If information and markets were perfect, government-backed risk sharing would not be needed. But in the absence of well-functioning equities market, investment expansion had to be financed by bank credit, which led to highly leveraged financial structure of firms. In this situation, implicit government-banks-industry co-insurance scheme could reduce the risk of investment. The major

[34]In other words, regulations, price controls, etc., but not actual decisions.

[35]It is interesting to note that both Williamson (1985) and Grossman and Hart (1986) make explicit reference that their definition of an organization (which does not allow for the ambiguities, on which we insisted here) only applies to private "sovereign" transactions. They implicitly seem to recognize that a clear distribution of decision rights may not exist in the presence of government.

problem with internal risk-sharing is that, unless effective monitoring and proper incentives are provided, it may lead to its own moral hazard problem, namely soft-budgeting.[36]

Apart from this argument concerning exogenous risk, another argument can be made that internal organizations are also instrumental in reducing endogenous risk. While neo-classical economics assumes that equilibrium is obtained, actual markets involve disequilibrium, strategic uncertainties and constant adjustments. In the early stages of economic development, markets may not be very stable, given that market participants may have less experience with their functioning and given that the institutional roots of the market, such as contract law and faith in the system, are much weaker. This second type of uncertainty seriously undermines the well-functioning of markets themselves. In an internal organization however, this second type of uncertainty can be alleviated as a result of the alternative ways decisions are made.

2) Informational structure

In market economies prices were often said to reflect economy-wide scarcities, while allowing for decentralized production and transactions.[37] Information in financial markets concerns not only the availability and demand of funds, but important information about the quality of borrowers and their likelihood to default. The traditional view of informationally efficient credit markets[38] is particularly inappropriate because it fails to recognize the strategic nature of asymmetries of information that can lead to considerable market imperfections. Markets screen borrowers and transmit information imperfectly and may

[36]There is a trade-off. If a borrower faces a soft budget, he will most likely impose some costs of inefficient refinancing on the lender, but he will also be freed from short-term pressures that may undermine its ability to do hidden long-term investments, such as learning (see Hellmann 1992). In section VI we argue that in the early stages of development, learning and long-term investments are important. In this perspective, the inefficiencies of soft-budgeting might be outweighed by the gains of long-termism.

[37]This point of view is associated with the Austrian school: see von Hayek (1945), Hurwicz (1973), and Grossman (1976). For the counter-argument, see Grossman and Stiglitz (1980) or Greenwald and Stiglitz (1986).

[38]This does not refer to the efficient capital market hypothesis, which looks only at the market and asks whether it can process the information efficiently. The fact that this weaker hypothesis seems to fail in many situations (for a survey, see Camerer 1989) is indicative of how important information problems can be to capital markets.

be said to achieve some intermediate level of informational efficiency.

For the internal credit market, monitoring and an efficient information flow are two of the most difficult challenges. A network is needed to collect large amounts of dispersed information about the availability and need for funds, and about the quality of borrowers. The key here is how efficiently communication is developed and how well monitoring is delegated. Both Korea and Japan placed considerable emphasis on communication between government, banks and firms, such as deliberative councils and monthly economic briefing meeting. They also placed considerable emphasis on monitoring, the responsibility of which was delegated to banks. An internal organization may have fewer incentives to withhold or distort information strategically: the strategic motive may be replaced by an incentive to cooperate on information exchange, and misrepresentation of information may be punished more severely than in a market environment.[39]

3) Provision of incentives

Incentives in the market are said to result from the opportunities of individual profit (or utility) maximization, and are directed by relative prices (such as interest rates). Yet, whenever prices are distorted or markets are missing, incentives will be distorted. Markets achieve only intermediate efficiency with incentives.

If the incentive structure is well-designed, internal organizations can provide more intense or more focused incentives. An internal organization can augment the intensity of incentives directly by increasing monetary or non-monetary rewards for good performance or increasing punishments for bad performance. In the market, bad performance can only be punished through termination of economic relationships. An internal organization can also avoid the biases inherent to markets by choosing among different performance measures to redirect incentives. For example, Japan and Korea emphasized the growth of firms (or growth of exports by firms), rather than profits. By emphasizing growth, firms can be freed from pressure to show short-term profitability and can focus on long-term perspectives.

[39]The design of efficient information transmission within an internal market is not obvious, however, and many things can go wrong. In parlicular, there are very difficult trade-off as to what information should be centralized. Indeed, excessive centralization of information is one very important reason why central planning—which we must however keep clearly apart from the GLIO—has failed.

Incentives within an organization are however also subject to familiar criticism, such as lack of effort, propensity for corruption, insufficient discipline and lack of innovation. The design of incentives within an internal organization is therefore extremely delicate. If one link in the hierarchical chain has distorted incentives, the entire system may run astray. More important, if at the top of the hierarchy the government and its bureaucrats use the system for purposes other than to improve the economy, the efficiency of credit allocation will almost certainly vanish.[40] The relatively transparent performance criteria set by export orientation and domestic cooperation, the apparent dedication of bureaucrats to economic development and national welfare, and political leadership in Japan and Korea, although difficult to explain, certainly contributed to uphold the system.

4) Governance structure

Just as decision rights differ between markets and internal organizations, actual decisions differ. Many market inefficiencies—problems of public goods and externalities, and strategic use of asymmetric information—may be viewed as a lack of cooperation and coordination. Markets, almost by definition, lack explicit structures for more direct interactions between decision makers than would be necessary to achieve the coordination and cooperation required to overcome inefficiencies; prices are supposed to do the entire job.[41]

Within the GLIO cooperation and coordination should be the result of

[40]The failure to provide appropriate incentives in credit allocation is harmful. There is a particularly wide scope for opportunism in credit allocation, such as misuse of funds (in other words, funds are used for inefficient projects, or insufficient effort is provided to make the funds efficient) and the diversion of funds for other purposes. However, this is true for any credit allocation, whether market-based, parametric or internal. Moreover, incentives for the diversion of funds are likely to be higher in the absence of a GLIO, when there are fewer institutional safeguards to detect such activities.

[41]We are assuming that there is no perfect contracting in markets, or else coordination and cooperation could be bought and sold in the market (c.f. Coase 1960). Accepting imperfect contracting, one may nevertheless object that agents in a market-based system still have the option of creating coalitions to address specific problems of cooperation and coordination. A coalition organizes its operations internally; thus, in a strict definitional sense, cooperation and coordination is again achieved through internal organization. Moreover, even with the option of coalition formation, a market system may have disadvantages. Coalitions are formed ex-post as a response to a given crisis (if they are firmly in place ex-ante they should be considered to be an internal organization). They

explicit and pervasive efforts to bring consensus among divergent opinions and objectives. The government can not only promote consensus, but it can provide direct incentives (both "sticks" and "carrots") to achieve cooperation and coordination. This also helps for the formulation of and adherence to commonly understood group objectives.[42]

Summarizing these four points, we can say that internalizing transactions within an organization has the potential to achieve a better allocation than in the market. However at the same time there is a significant danger of ending up with a far worse allocation.[43] Whether or not good or bad outcomes occur is not just a matter of luck, but depends on a host of preconditions, such as common national goals, political leadership to convince the firms and consumers to share burden for such goals, the stage of the economic development, and the quality of economic management.[44]

VI. Diminishing Merits of Credit Policies Over Time: From GLIO to PLIOs

The merits of credit policies and GLIOs diminishes as economic development advances, as happened in Japan and Korea. The government's role changed according to the dynamics of economic development: industry expanded while direct government involvement in economic activities decreased. Governments did not withdraw from direct intervention suddenly, but transferred control gradually to the private sector, especially the big conglomerates, which we may think of as "privately-led internal organizations" (PLIOs).[45]

are likely to be formed too late and be less effective; since their members have little information on each other and no experience in working together, they are not engaged in long-term relationships and cannot rely on the same reputation enforcement mechanisms.

[42]One aspect that also seems to have contributed to this in Japan and Korea is relatively high degree of cultural homogeneity within the work force.

[43]Although in a very model-specific context, Sah and Stiglitz (1986) actually prove a proposition to this effects.

[44]Human capital is also an important condition, in particular, among the bureaucrats responsible for running the system. There also seems to be an aspect of multiple self-perpetuating equilibria: if economic management is good, the success of the organizational structure will perpetuate and trust and reputation mechanisms will develop within the system. If economic management is bad, the organization will enter into a perpetuating cycle of mistrust and corruption.

An economy in the early stage of development is characterized by a structural deficit of inadequate human capital, poor knowledge about existing technologies and insufficient expertise in managing firms and other economic institutions. A development strategy depends heavily on learning and adaption of existing technologies. Other than production techniques, this also involves learning and adaptation of economic institutions, one being the institution of markets themselves. Given the public good character of technological and institutional knowledge or expertise, and given the externalities associated with learning, the comparative advantages of the GLIO may be particularly prominent during the early stages of development, when a country is focused on matching other countries' successful experiences.

At more advanced stages of economic development, the role of the GLIO diminishes. Innovation supersedes learning and adaptation as an engine of growth. Because the environment must support individual entrepreneurship and innovation, an internal organization may fail to provide the correct incentives for innovation, especially since (intellectual) property rights within the internal organization tend to be vaguely defined. The consensus on the direction of a development strategy is likely to erode, and different fractions of society become more likely to push for their own socio-economic agendas, which put less emphasis on national economic growth.

This argument may explain the diminished usefulness of the GLIO as the Japanese and Korean economies developed. The more subtle issue is whether only the role of government (GL) or the entire institutional approach (IO) diminished in importance. We argue that the GL became dispensable at higher stages of economic development, whereas the IO adapted to the changes in the economic environment with the expansion of PLIOs.

At the earlier stages of development the Japanese and Korean governments, which were both staffed with very capable bureaucrats, were the only economic forces with the organizational capacity to pool the necessary resources to establish and maintain an institutional framework such as the GLIO. But after institutional arrangements had been developed and the private sector had the expertise to organize economic activity, there were many options to reduce the government's in-

[45]An important distinction between GLIOs and the PLIOs is that the PLIOs can find themselves in competition with each other. However, except in the later stages of economic development, the distinction between the PLIOs and the GLIO is not absolute insofar as the PLIOs were part of the GLIO.

volvement. One clear advantage of private institutions was that control over economic activity was better insulated from political misuse. The transfer of control to the PLIOs had the advantage of maintaining some of the institutional advantages of internal organization, while relaxing the government's grip on the economy at the same time.

One should however be careful about generalizations concerning these devolutionary process. First, the transition from GLIOs to PLIOs, that we observe in Japan and Korea may have been a very country specific experience. Whether in general a GLIO or a PLIO is more effective to foster economic development depends largely on the particular circumstances,[46] and in particular on the government's determination to use the GLIO for the purpose of expediting growth. If the government is likely to abuse any such arrangement as the GLIO, the outcome of resource allocation and growth would be poorer than those the imperfect markets.

Second the speed and extent of the devolutionary process could be slowed by several factors. Economic efficiency may not be its only determinant. Reduced government involvement in the economy runs contrary to the vested interest of corporate firms that have relied upon government supports to expand or at least preserve their activities. The corporate firms, under the government—bank—industry co-insurance arrangements, have operated in a highly leveraged financial structure. Therefore, the firms have become vulnerable to economic downturns without continued government support. Also, bureaucrats have an incentive to create importance for their own operations. Bureaucrats have no interest in acknowledging when government expansion be-

[46]At least in the abstract, one can think of the possibility of an "optimal" size of a GLIO. The issue is complex and controversial, so that we limit ourselves to a brief and simplified note here. Suppose that a GLIO has a committed leadership. If there are gradually decreasing returns to scale for a GLIO, then, ceteris paribus (in particular holding the degree of centralization of the GLIO constant), economic growth of the GLIO will bring it eventually to the point of diminished returns. This happens even faster if the optimal size of the GLIO (again holding degree of centralization constant) diminishes over time as markets become more sophisticated. Thus, at some point, the GLIO should either be split into several parts or should relax its degree of centralization (both seem true for the change from GLIO to PLIOs).

One implication of this argument would be that the GLIO is more feasible in small economies. Loosely speaking, the examples of Japan and Korea support the argument: they were both relatively small economies at the beginning of their economic expansion.

comes unwarranted or when government activities are no longer necessary.[47]

Because these administrative obstinacies are well understood and involve political, rather than economic, analysis, we do not discuss them here. However in the long-run these problems may have constituted significant inefficiencies in the Japanese and Korean financial systems, and would certainly be relevant in other developing countries.[48]

VII. Summary and Conclusion

Japan and Korea's economic successes are widely acknowledged and many have suggested links between economic success and industrial policies, especially policy interventions in credit. These contrasts with the widely-held perception that directed credit programs have failed in other developing countries.

Many explanations have been given for economic growth in Japan and Korea: the governments' strong commitment to growth, the stability of the administrations, an outward-oriented development strategy, well-educated and disciplined labor forces, and the social and cultural environment. While we appreciate these aspects, we pursued a complementary but methodologically different approach. Starting from a perspective of the new institutional economics, we attempt to provide an alternative framework for understanding credit policies.

The central argument of the paper is that credit policies in Japan and Korea benefitted from close consultation, cooperation, and monitoring between the government, banks, and industries within the larger context of what we have called the "government-led internal organization" (GLIO). Government credit intervention during their early stages

[47]This is related to the problem of administrative capture, when bureaucrats collude with their respective clients. Capture threatens one of the major advantages of a GLIO: its flexibility. This is certainly true for the allocation of credit, where departments become accustomed to dealing with their group of borrowers and tend to represent the interests of the borrowers within the government. Capture is also dynamic in the sense that bureaucrats and industry gradually learn to develop surreptitious long-term relalionships (c.f. Tirole 1986).

[48]To quote the former prime minister of Korea (Nam, D. W. 1992),

"It is difficult to do full justice to the Korean experience, but my observation is that the government intervention was not only desirable but also inevitable in the early stage of economic take-off, and that the scope and method of government intervention should have been changed over time more swiftly in response to changing conditions in later stages of development."

of economic development can be interpreted as an internal transaction within the GLIO, and may be interpreted as an efficient response to pervasive credit market imperfections.

We define the GLIO loosely as formal and informal institutions in which banks and firms operate in close partnership with government. We examine the distinctive properties of internal organization as an alternative mode of economic transactions to markets. The internal organization may overcome some market imperfections and improve the informational structure in the economy, provide stronger and better directed incentives, and, most important, foster cooperation and coordination among business, banks, and government because of its more explicit governance structure.

We describe the incentive structure which induced banks and firms to comply with the long-term industrial policy goals of GLIO. Firms were given the opportunity for long-term investments and could benefit from implicit government-bank downside risk insurance. Banks were given strong incentives to mobilize deposits and the lending were encouraged to maintain close long-term monitoring relationships.

Credit policies in Japan and Korea could be effective tools for industrial policy since implementation allowed for a flexible selection of the recipients of implicit subsidies, for governance control that induced industrialists' compliance with government policies, and for risk-sharing between government and business. Their effectiveness, however, owed much to the institutional environment in which they were implemented.

The GLIOs also featured remarkable external consistency. Credit policies were effectively coordinated and were integrated into macro policies and development strategies. Because the government was directly involved in the economy, it was more likely to recognize and correct early policy distortions that damaged the industrial sector. Furthermore, the outward-orientation of the Japanese and Korean economy meant that external discipline affected the performance of firms within the GLIO, and was complemented by internal competition.

In Japan and Korea, there has been a gradual devolution of the role of government, coupled with the rising importance of unregulated (or less regulated) segments of financial market and large conglomerates—"privately-led internal organizations" (PLIOs). During the early stages of economic development, the GLIO was compatible with the need to learn and adapt existing technologies. But later, it began to hamper more innovative economic activity. In early economic development, the government could also be at a comparative advantage to overcome market imperfections, but later, private agents became more able to run internal organizations. The devolutionary process, however, is hampered by resistance of bureaucratic bodies and vested interest groups. Thus, there is a fundamental problem: how to phase out a system against entrenched interests?

Common national goals, capable and dedicated bureaucrats, homogenous population, and cohesion among social elites may have made GLIO approach particularly successful in Japan and Korea. Moreover, differences in Japan's and Korea's approaches indicate that the finer details of institutional structures may vary considerably. The most striking lesson that arises from Korea's and Japan's early experiences, however, is that once government decides to use credit policies to support its industrial growth strategies, it should recognize that it is crucial to establish and maintain an institutional environment that allows their effective implementation. It was the comprehensive involvement of the government, that went well beyond the simple provision of subsidized credit programs and encompassed the governance over the major participants in the development drive (both banks and firms) that seems to differentiate the Japanese and Korean experiences with credit policies from those in other countries.

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