

**The “hidden” side of the “flying-geese” catch-up model:
Japan’s *dirigiste* institutional setup and a deepening financial morass**

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ABSTRACT

Akamatsu's original "flying geese (FG)" growth model is often used as a frame of reference for both further conceptual elaborations and empirical explorations. So far have only the positive side and results of FG development been focused on and emphasized in connection with Asia's phenomenal growth in the pre-crisis period. The Japanese economy, supposedly Asia's lead goose, is in the eleventh consecutive year of stagnation. How has such a once successful lead goose come to be stricken by financial woes? This paper points out that Japan's once miraculous FG growth was made possible because it established an effective *dirigiste* catch-up regime in the early postwar period but that Japan's present financial predicament is paradoxically a path-dependent outcome of such an FG strategy. The institutional, especially financial, dimension of FG strategy needs to be taken into account to explain why such a strategy once proved effective but later culminated in a deepening financial morass. The FG model should encompass not only the industrial dimension of catch-up but also its institutional, particularly financial, dimension.

1. Introduction

Japan is in the eleventh year of stagnation with a prolonged financial malaise. However, Japan's phenomenal growth was once admired and even feared as a juggernaut. Japan and the rest of Asia grew in tandem and basked in clustered regional prosperity, which the World Bank (1993) called the "East Asian miracle." One popular way of explaining such regionally agglomerated growth was the so-called "flying-geese (FG)" model of economic development. As pointed out in Kojima (2000), however, the FG model is incomplete in many respects, especially in its financial dimension.

Ever since the start of the 1990s Japan, supposedly Asia's lead goose, has been mired in a self-inflicted financial crisis ever since the bubble of 1987-1990, which is now made all the more dangerous with a "triple deflation"—simultaneous declines in the prices of goods, property, and equity shares. On March 19, 2001, the Bank of Japan had to adopt drastic monetary policy to flood the economy with liquidity, an unprecedented measure designed to prevent "price destruction" in hopes of stimulating demand.

This paper argues (i) that the FG model of catch-up growth, though instrumental in depicting the essential features of latecomers' (notably Japan's) industrial upgrading and Asia's export-led growth, has so far neglected its financial/institutional dimension, and (ii) that the success of Japan's FG growth derives critically from a special set of institutional arrangements that was created in the early postwar period, and (iii) that Japan's present financial imbroglio is paradoxically the very vicissitudinary outcome of such an FG-specific regime.

2. "Flying-geese" Catch-Up Strategy

As already often cited, the FG model of economic development was originally introduced by Kaname Akamatsu in the 1930s (*inter alia*, Akamatsu 1935) and has been theoretically expanded and empirically tested by his followers, as detailed in Kojima (2000) in this Journal. It is worth re-emphasizing that Akamatsu was among the very first to recognize the economic significance of what he identified as "the alignment from advanced nations to backward nations according to their stages of growth": he argued that "It is impossible to

study the economic growth of the developing countries in modern times without considering the *mutual interactions* between these economies and those of the advanced countries” (Akamatsu 1962, p. 1, emphasis added). He did not, however, leave any formalized theoretical model to explain his ideas. The FG analogy came from his empirical findings of the “import->domestic production->export (M-P-E)” pattern of sequential growth in some prewar Japanese industries (such as textiles), which he identified as the basic FG pattern. In essence, what he had in mind was an *evolutionary model of sequential catch-up through teacher-learner relations among the nations along the stages of industrial upgrading*. It was a model of *derived* economic development via emulative learning in a latecomer nation.

The catch-up regime Japan set up after the Second World War, however, was rather a nationalistic *dirigiste* one, since the M-P-E sequence (namely import-substitution-cum-export promotion) was purposely state-assisted—and promoted as a dynamic “infant industry” development strategy. It is true that Japan’s industrial development policy was basically private-sector-assisting and “market-facilitating/creating” (Gregory 1986) or “market-enhancing” (Aoki, Murdock, and Okuno-Fujiwara 1997). Nevertheless, it involved extensive restrictions on imports, technology transfers and inward foreign direct investment (FDI)—all for the purpose of building up national (*not* foreign owned) domestic industries. This role of the government was significant, particularly when Japan modernized and rebuilt capital-intensive heavy and chemical industries, industries that it had previously succeeded developing in the prewar years.

Emulation was the essence of Japan’s FG strategy, capitalizing on its latecomer status in learning from the West. Akamatsu himself did not directly prescribe such strategy, but Japan’s catch-up policy was formulated and pursued in the spirit of his original insight (Korhonen 1994). Japan’s postwar policies have been well explored (*inter alia*, Komiya et. al. 1990; Patrick and Rosovsky 1976). Japan’s FG strategy can be re-interpreted as consisting of three critical types of industrial policy by drawing upon Akamatsu’s original triumvirate FG patterns: the M-P-E sequence, the “from crude/simple to complex/refined articles” sequence (which is industrial upgrading) and the “alignment of nations along the different stages of development”:

- (i) a policy for industrial upgrading (IU) from low value-added (low productivity) to higher value-added (higher productivity) industries,

- (ii) a policy for import-substitution-cum-export-promotion (IS-EP)--that is, to replace imports with domestic output and later to promote exports,¹ and
- (iii) a policy to transfer comparatively disadvantaged industries or industrial segments onto other countries (mostly nearby developing Asian countries) so as to retain higher value-added industries at home, a process that may be identified as comparative advantage recycling (CAR) and adaptive efficiency enhancement (AEE) at home.

Obviously, the outcomes of these policies were closely and sequentially interrelated. IU policy is the ultimate goal of the FG strategy. And IU can be accomplished by both the IS-EP sequence and the CAR-AEE mechanism. Once a new comparative advantage (commensurable with Japan's prevailing factor endowments and technological conditions at a given point in time) was created out of formerly disadvantaged industries through the IS-EP policy, Japan continued to foster other future growth industries at home—that is, to move up the ladder of IU. And once export industries (or industrial segments) began to lose competitiveness (i.e., become comparatively disadvantaged), they were transplanted via overseas investment onto other countries, especially the developing Asian countries, where the factor endowments and technological conditions were still suitable for such industries. What is more, those goods transferred and produced overseas are now imported back to home—hence, the IS-EP policy eventually turned to the sequence of “import->domestic production->export->overseas production via FDI ->import” by going beyond Akamatsu's original M-P-E. In the meantime, the resources released from the contracting (now disadvantaged sector) are shifted to newly emerged competitive sectors (i.e., AEE).

What is involved is not static *allocative efficiency* (i.e., movement along a given product possibility frontier) but dynamic *adaptive efficiency* (i.e., a biased shifting-out of the product possibility frontier along the Rybczynski path). This adaptive efficiency was pursued as an infant-industry protection strategy in a market-

¹ In this trade-focused development of a specific good or industry, critical technology was acquired in an “unpackaged” manner, that is, mostly under licenses. Later on, the sequence required no initial imports of goods and shifted to that of basic technology acquisition->commercialization at home (i.e., domestic production)->export, as best seen in many of Japanese innovations such as transistor radios, pocket-size calculators, quartz watches, etc. In this later version, government role declined, while adaptive corporate R&D and entrepreneurship played a crucial role in innovation.

(or industry-) creating fashion so that world-class private enterprises would emerge at home. The pro-business (or private-sector-fostering) stance of Japan's *dirigisme* cannot be overemphasized.

Consequently, the IU process itself has been state-supported but fundamentally driven, and tested, by the logic and rigor of the market. As a latecomer economy, furthermore, Japanese IU policymakers knew what types of industry to develop, following in America's footsteps; Japan was able to secure readily a flight map (a clear picture of existing industries in the United States) and flight capabilities and instructions (technologies/information needed to build modern industries), as it were. In the context of the Pax Americana, the United States was indisputably the first goose, and Japan came to play the role of a second goose (intermediary) in actively absorbing, and often improving on, modern technologies and later transferring those assimilated technologies to the rest of Asia via CAR-AEE. It would not be amiss to argue that without America's policy to assist East Asia to develop industrially as a bastion against communism—and without Japan's rapid catch-up and industrial transformation, the "East Asian Miracle" (World Bank 1993) would not have occurred.

It should be noted that the U.S. itself was once a second goose, along with Continental European nations, emulating Great Britain where the Industrial Revolution originated. Hence, learning-based catch-up is nothing new. What makes Japan's and the rest of East Asia's experience rather distinct from any previous ones, however, is that both the leader and follower nations have been more deliberately and more cooperatively engaged in regional growth—the U.S. in particular has helped Asia develop by providing technology, capital and markets, while the Asian governments have actively orchestrated export-led outer-focused industrialization. The Asian pattern has also been more multi-layered with its constituent nations situated at different stages of development and together forming a complementary hierarchy of interacting economies. The upshot is the phenomenon of time-compressed and regionally clustered/agglomerated development which can be most fittingly described as an FG growth formation.

The interface between industrial upgrading at home and CAR-AEE via multinational corporations' (MNCs) activities can be best described in terms of the "industrial upgrading" model of FDI (Ozawa 1993; UNCTAD 1995). This IU model is a reformulated FG theory, which emphasizes the role of cross-border direct investment as a facilitator of structural change. It depicts how Japan's industrial structure has gone through continuous

metamorphic changes, a process that can be chronologically divided into four sequential stages of transformation, each of which is dominated by a particular group of comparatively advantaged industries:

Phase I. The “Heckscher-Ohlin” industries: expansion of labor-intensive manufacturing in textiles, sundries, and other light industry goods as the leading export sector (1950 to the mid-1960s).²

Phase II. The “nondifferentiated Smithian” industries: scale-economies-based modernization of heavy and chemical industries (prewar-built but war-torn industries) such as steel, petrochemicals, and synthetic fibers (the late 1950s to the early 1970s).

Phase III. The “differentiated Smithian” industries: assembly-based, subcontracting-dependent, mass production of consumer durables, such as automobiles and early-generation electric/electronics goods (TVs, VCRs) (the late 1960s to the present).

Phase IV. The “Schumpeterian” industries: mechatronics-based, computer-aided flexible (or lean) manufacturing of highly differentiated multi-variety goods, along with R&D-driven breakthroughs such as HDTVs and other latest-generation electronics, new materials, fine chemicals, and more advanced microchips (the early 1980s onwards).

The transition from one phase to another has certainly not been clear-cut but has overlapped in the above chronological approximations. This stages model is basically a “leading growth sector” model *a la* Schumpeter (1934), in which a sequence of growth is punctuated by stages in each of which a certain industrial sector can be identified as the main engine of structural transformation. It is in sharp contrast to the neoclassical view of growth as a smooth incremental accumulation of capital.

² It should be noted that Japan had already gone through this phase in the late 19th century. In fact, Akamatus originally found FG patterns in the development of Japan’s labor-intensive manufacturing (such as woollen goods, and cotton yarn and cloth) and light machinery industry (spinning and weaving machines and machine tools) in the prewar period (about 1890 to 1940).

Japan has so far fully completed the first three phases of industrial metamorphosis and is currently in the midst of its fourth stage. And interestingly enough, Japan's overseas investment has exhibited similarly varied patterns, so far four major distinct patterns in a sequential manner, each reflecting the nature of its corresponding pattern of industrial activity at home. This stages-specific correspondence between structural transformation and FDI is schematically illustrated in Figure 1. The revealed phases of FDI can be identified as (i) the elementary stage of offshore production (or low-wage-seeking investment), (ii) resource-seeking and house-cleaning investment, (iii) assembly-transplanting investment (inclusive of low-cost-labor-seeking FDI in parts, components, accessories and low-end products), and (iv) alliance-seeking (strategically networking) investment in production, marketing and R&D.

As Japan metamorphosed structurally, its comparatively disadvantaged industries have been recycled abroad, particularly to other Asian economies--hence, the notion of "market or industrial recycling" (Ozawa 1993) or "comparative advantage recycling" (Berri and Ozawa 1997). The causal mechanisms between structural change and FDI are also theorized elsewhere (Kojima 2000; Kojima and Ozawa, 1984, 1985; Ozawa 1997, 2000a) and have recently begun to be empirically examined (*inter alia*, UNCTAD 1995; Dowling and Cheang 2000). (see Figure 1.)

Seen in this light, Japan's industrial rise has been almost flawless. Thanks to the FG strategy of catch-up (i.e., *learn industrial knowledge as much and as quickly as possible through emulation*), its technological level and productive capability are now overall on a par with the United States and the EU. It has a huge reservoir of private wealth, and is a formidable competitor in the world economy. There is nothing wrong with its "fundamentals." But its economy is in a financial shambles. What went wrong?

3. Japan's Institutional Matrix for FG Catch-Up

What is missing from the smoothly evolving picture of Japan's industrial upgrading and growth as depicted in the above FG model is its much neglected institutional dimension, including the financial setup. Each economy has its own set of institutions for economic activities, and its overall economic performance is largely determined (enhanced or retarded) by such an institutional arrangement (North 1990). Such a set can also be

called “an institutional matrix that defines the incentive structure of society” against the backdrop of “the belief system” that connect “reality” to the institutions (North 1999, p. 9). Japan set up a catch-up regime suitable for its own prevailing socio-economic conditions in the early postwar period by combining formal rules with traditional norms and mores.

Japan’s FG catch-up regime was actually effective mostly during the high-growth era of heavy and chemical industrialization up until the mid-1970s--that is, during the so-called “Golden Age of Capitalism.” It was based on, and supported by, four key elements: (i) state-augmented bank-based finance (the “main bank system” and the “stakeholder model” of corporate governance), (ii) *Keiretsu* formation, (iii) the politically protected “pork-barrel” sector, and (iv) the principle of “job primacy over efficiency” as an implicit social contract. Each of these elements has already been well explored in many studies, but their interactions and evolutionary developments in the context of Japan’s FG strategy and present financial quagmire have not been examined. As will be detailed below, *these elements have eventually evolved and converged in a sequential and path-dependent fashion to cause some critical institutional misalignments (incongruities) which culminated in the recent and current economic crises as the vicissitudinary outcomes of Japan’s once phenomenal growth under the FG catch-up strategy. The institutional misalignments have been caused by the combined forces of the fast-changing market conditions that Japan’s FG catch-up regime itself created and the rigidification of such a regime a la Olson (1982) which was set up in the early postwar period.* All the path-dependent evolutionary developments that have transpired are sketched out in Figure 2.

3.1 . State-augmented bank-based finance and repressed capital markets

As is typically the case with any developing countries, Japan once resorted to and maximized the use of bank-based finance for FG catch-up instead of capital-market-based finance. In this scheme, Japan also used “central-bank-based finance” (the Bank of Japan created funds internally) rather than “CA-deficit-based finance” (i.e., borrowings from overseas) (Ozawa 1999, 2001). These two, but especially the latter, are the crucial financial aspects of catch-up growth which the FG model has so far not taken into account, but which can shed light on the puzzle of a successful FG process suddenly ending up in a crisis.

At the start of postwar growth the stock market initially was a relatively important source of funds for corporate investment in Japan. Soon, however, bank loans were deliberately promoted for corporate finance as the essential financial strategy of overall FG development, and equity finance quickly became secondary to bank loans. In order to control credit expansion, moreover, the government prohibited corporations from issuing bonds. A bond-issuing privilege was granted only to those financial institutions (mainly, three long-term credit banks) and utilities that were specifically designed to finance public purpose long-term projects (Patrick 1994a). Consequently, there was early on no choice on the part of corporations but to borrow from banks.

Dependence on bank loans thus became the critical mechanism through which a policy of financial repression was implemented by keeping interest rates low, controlling market competition (via entry regulations), and channeling capital to policy-targeted sectors and projects. Under close supervision and control of the Bank of Japan, which was virtually a policy arm of the Ministry of Finance, the six major *keiretsu* banks (Mitsui, Mitsubishi, Sumitomo, Fuji, Sanwa, and DKB) played the role of “main banks” for their respective groups in investing in heavy and chemical industries the capital injected by the central bank (Aoki 1994; Aoki and Patrick 1994; Teranishi 1994). In those days, the strength of the main bank system was “its strong information collecting, related monitoring capabilities, and management consulting, ” reducing uncertainty and increasing commercial information, although it was also accompanied by weaknesses such as preferential access to information among participants, secretive and opaque relationship banking and limited public disclosure (Patrick 1994b, p. 359).

Furthermore, bank-created money (both the central bank’s credit and the banking industry’s multiple-expansion of deposits and loans) and did not lead to any serious inflation, since (i) the funds were carefully invested in supply-increasing industrial projects, (ii) the monetary spigot was turned off as soon as Japan encountered a balance-of-payments deficit, a deficit caused by such an expansionary monetary policy (Wallich and Wallich, 1976), (iii) during Japan’s high growth period (from the early 1950 to the early 1970s) domestic savings increased dramatically, which were channeled into business investment (instead of consumer credit, whose facilities were still repressed) and (iv) the government maintained a balanced budget, hence the absence

of open market operations (to monetize national debts) (Patrick 1994b). That central-bank-augmented credit creation for growth was a *classic* case of development finance in the early-stage of industrial capitalism as envisaged and theorized by Schumpeter (1934), who even called the banks as “the headquarters of the capitalist system.”³

Capital markets were given a supplementary role, and the bond market in particular was even discouraged to develop until the mid-1980s; corporate issues and the development of a secondary market were severely discouraged (Patrick, 1994a). That state-augmented banking system naturally produced a “moral hazard” effect, since high-risk investments were encouraged and the central bank always stood ready to bail out any *keiretsu* bank at the first sign of financial difficulty; they were *strategically too significant to fail*. Small and even inefficient banks were equally protected under the scheme popularly referred to as a “convoy system,” in which strong banks were obliged to guard weak ones. The result was that banks’ operations became extremely asset-expansive as they eagerly extended loans—especially in the context of inter-*keiretsu* oligopolistic rivalry as the *keiretsu* competed vigorously with each other in setting up a similar set of industries, a phenomenon that came to be called the “one-set” principle (Miyazaki 1980).

Banks—and their *keiretsu* customers—were thus all the more willing to take risks because they could count on government help. Moral hazard was actually needed as an inducement to promote large-scale investments in capital-intensive, scale-driven industries, since these industries imposed high financial risks on the private sector. Without government support and the *keiretsu* formation, individual enterprises alone might have been reluctant to plunge into new large-scale ventures during Japan’s heavy and chemical industrialization (from the mid-1950s to the early 1970s). A rise in national output capacity (aggregate supply) had to be induced to match the liquidity (aggregate demand) pumped into the economy by the central-bank-augmented credit creation in order to prevent inflation (as emphasized by Schumpeter). This type of moral hazard, then, can be identified as the *socially justifiable* type (Ozawa 1999), since it induced socially desirable investments in the modern sector, thereby facilitating a swift industrial transformation. Indeed, this was the financial side story of Japan’s FG

³ It should be noted that Schumpeter recognized the role of securities (equity shares and bonds) in finance but that he considered them basically by-products or derivatives of the very process of development that would be brought about by bank loans in the first place

strategy which resulted in unusually rapid growth during the “nondifferentiated Smithian” stage of heavy and chemical industrial modernization.

Ironically, the very success of *dirigiste* bank-based capitalism, however, came to undermine the privileged position of banks. It was a self-destructive system. Thanks to the low-cost capital made available under such a system, big corporations, mostly in the *keiretsu*, grew quickly and accumulated internal reserves, along with a sharp rise in debt-equity ratios—for example, from 0.78 in 1961 to 5.67 in 1964 (Arisawa 1967). Both retained earnings and banks loans were needed to finance the development of capital-intensive heavy and chemical industries. The accumulation of internal funds was made possible because corporate investment was quite profitable during the high growth period and, moreover, because companies did not need to pay out much dividends (post-tax payments) and paid mainly a fixed amount of interest (pre-tax payments) without regards to profitability. Once Japan’s economic growth slowed down after the first oil crisis of 1974, the expansion of internal reserves began to serve as an emancipator from dependence on banks. In other words, the main bank system itself was responsible for making the banks’ clients less and less dependent on loans—hence less susceptible to monitoring and more autonomous in investment decisions (Ozawa 2000b).

Moreover, as Japan entered the subsequent “differentiated Smithian” phase of assembly-based, components-intensive industries, notably automobiles and electronics, leaving behind heavy and chemical industries, there soon emerged new world-class manufacturers. Many of these manufacturers actually did not originate as *keiretsu* firms which were supposedly best coached by their main banks. These new companies started out as outsiders (non-*keiretsu* upstarts) and have largely remained as such.

A prime example is Toyota Motor Corporation, now the world’s most efficient car maker, which has had no affiliation either with any *zaibatsu* or *keiretsu* ever since its establishment in 1937. In fact, the company has persistently avoided external debts. Its internal reserves became enormous, so much so that Toyota itself came to be known as the “Toyota Bank.”⁴

(Ozawa 1999).

⁴ Honda is another example, which in its infancy had a hard time securing bank loans because of its initial status as an independent upstart. It originated as a bike repair shop in the early postwar period. Only later on, the company became “affiliated” with the Mitsubishi Bank (now Tokyo-Mitsubishi Bank). Likewise, Matsushita Electric Industries quickly accumulated huge internal funds

Furthermore, some successful Japanese corporations were soon able to tap the bond market at home and international capital markets for their financing needs at low costs as the bond market was deregulated and as restrictions on borrowings from abroad were lifted with the amendment of the Foreign Exchange Control Law in 1980.⁵

As a result of ever-increasing internal funds and the opportunities to raise capital abroad, there was thus no reason for them to be subservient to their banks and to be dictated about how to run their own businesses by bank officials. Besides, the main bank system might not have been as beneficial for the affiliated firms as described by its proponents, who emphasize the magic of the system in solving the problems of information asymmetry and transaction costs.⁶

It was against the background of this rapid structural change in the market that an asset bubble (1987-1990), stemming from, and fed by, speculative investments in real estate and stocks, occurred. Because of the easy monetary policy adopted to combat the so-called “high-yen” recession after the Group-Five (G5) Plaza accord in 1985, the banks became awash in liquidity. Yet, they began to be “departed” by big corporations mainly because of the deregulation of and development of a corporate bond market, as explained above, and found themselves in the search for new, smaller, more risky borrowers, such as small- and medium-sized enterprises, real estate firms, distributors (both wholesalers and retailers), and construction companies. The share of this group of borrowers soon accounted for as much as one third of total bank loans. Real estate firms alone were responsible for one quarter of the total. In addition, the banks channeled loans through non-bank banks (e.g.,

and has ever since been practically free from external debt. It is also often called the “Matsushita Bank.” Sony was also no exception as a non-*keiretsu* firm.

⁵ “As a fraction of all securities issued by Japanese companies, overseas issues [reached] nearly 50 percent by 1985” (Kester 1991: 188). As far as bonds are concerned, “within three years of the revision of the Law, the value of bonds issued abroad exceeded the value of bonds issued domestically” (Weinstein and Yafeh 1998: 637). According to Hugh Patrick (his comment given to this author), “Interestingly, not only were most of these bonds underwritten by Japanese financial institutions, they were purchased by Japanese insurance companies and other Japanese institutions. This was because such foreign issue was far cheaper and easier because of persisting MoF [Ministry of Finance] restrictions on domestic bond issue. (MoF has been a slow learner when major transformations are occurring.)”

⁶ Over the 1983-87 period (that is, at the height of assembly-based “differentiated Smithian” manufacturing), retained earnings accounted for as much as 53 percent of the sources of funds in Japan. This Japanese percent compared with 72 percent of the sources of funds in Germany, and 66 percent in United Kingdom over the same period (Baums 1994). One empirical study (Weinstein and Yafeh 1998) reveals (i) that the cost of capital of bank-affiliated firms was higher than that of their peers (nonbank-affiliated ones) and (ii) that most the benefits from relation banking were appropriated by the banks. No wonder, then, the “departure from banks” syndrome intensified. Japan’s main bank system was effective in capital allocation only during the early stages of Japan’s postwar FG catch-up --at most until the early 1980s with 1975 as its watershed year.

housing-loan companies and consumer credit firms), since the latter were less strictly regulated than the banks themselves. These non-bank bank loans accounted for as much as 37.8 percent of the total loans the real estate industry secured (Noguchi 1992).

Low interest rates and the abundance of liquidity fueled the rising prices of stocks and real estate. With the soaring share prices and property values, firms and individuals borrowed even more since they used their assets as collateral. Both lenders and borrowers did not realize that they were under the illusion of no-declining property values, which had actually kept soaring over the preceding 40 years (1950-199). Thus a speculative spiral was set in. The *dirigiste* bank-based finance brought about the problem of moral hazard, but this time the moral hazard effect was thus of the *degenerative* type (in contrast to the earlier *socially justifiable* one).

The bursting of the bubble began in early 1990, following the rise in the discount rate. The stock market peaked on the last trading day in 1989, and the urban land price started to fall later. The debacle was a disaster for borrowers in real estate, construction, distribution, and finance, as well as for banks as lenders. The latter thus came to be saddled with the ever-rising amounts of bad loans, the very initial cause of Japan's present banking crisis.⁷

3.2. *Keiretsu formation, cross-shareholdings and aftermath*

The main bank system was organized with *keiretsu* formation, which emphasized collective collaboration not only within each *keiretsu* but also between the *keiretsu* and the government in industrial development. *Keiretsu* was part and parcel of Japan's industrial *dirigisme*, serving as the critical vehicle through which state-created capital was channeled into investment projects considered essential under industrial policies. *Keiretsu* served as an effective mechanism to reduce "coordination failures" in large-scale investment projects, which business firms *individually* are not willing or able to take risks. Only a collective investment can realize the potential of increasing returns, linkages and complementarities (dynamic external economies and indivisibilities) simultaneously in both supply and demand capabilities and spillovers. (This is a classical case

⁷ According to the latest tally of outstanding bad loans by the Japanese government, they stand somewhere between \$337.9 billion ("nonperforming loans" only) and \$1.23 trillion (at 122.52 yen = \$1) (including "problem loans"), thus all depending on how "bad loans" are defined. As reported in "Debate persists on size of loan problem in Japan, clouding Tokyo's ability to act," *Wall Street Journal*, April 24, 2001.

of market failure once debated when the notions of “big push” and “balanced growth” were advanced as a strategy for industrialization in the early postwar period.)

Another feature of the main-bank-cum-*keiretsu* system is *cross-shareholdings* among affiliated banks and firms. Mutual holdings of shares were practiced as a way of cementing the business ties among intra-*keiretsu* organizations and reducing transaction costs (especially the costs of the principal-agent problem and opportunism). The main bank owns shares of its affiliated corporations and other affiliated (usually smaller) banks (up to the legal limit of 5 percent), and vice versa (no limit for non-financial firms, so long as they own other non-financial firms). The bank’s holdings of stocks are said to serve as an important means of influencing the course of business in their client firms, while inter-corporate stockholdings in the non-banking sector is also a symbol of mutual trust (and hostage exchange) and long-term relations. In fact, the interlocking of stock ownership and directorship is what characterizes the *keiretsu* system, both of the financial (*kinyu*) and industrial (*sangyo*) types. It was supposed to serve as a mutual monitoring mechanism, but in reality it largely deepened the entrenchment of management, since hostile takeovers were hindered under this cross-shareholding arrangement. “Friendly and patient” capital was thus created. 10 to 25 percent of each constituent firm’s stock has come to be held by other firms in the group. In addition, interlocked directorships occur in two-thirds of these firms; in other words, they have full-time executives dispatched from affiliated firms.

It is against this unique background that cross-shareholdings and *keiretsu* formation have begun to unravel in the recent past, aggravating downward pressure on share prices as a large number of shares are “dumped” to the stock market

The *dirigiste* main bank system and the *keiretsu* formation (combined with Japanese-style labor relations to be discussed below) also caused, especially in the aftermath of the bubble burst, (i) the overcapacity, overdiversification and overstaffing of productive facilities in the non-financial (manufacturing, construction, wholesale and retailing and other services) sector (with too many unprofitable subsidiaries and too many employees to be profitable), and (ii) the excessive number of banks (too many banks to be profitable). The former is contributing to the current deflationary pressure, and the latter aggravating the unprofitable (as yet

fully restructured) banking sector. Thus the needs for business and financial restructuring have arisen out of Japan's once phenomenal growth.⁸

The Japanese system was a clear case of “insider control,” not only in the benign sense that the majority bloc of the capital stock is held by “friendly” affiliated banks and companies, but also and more importantly, because the government controlled the whole financial sector in such a way to encourage the use of stocks not as investment instruments *per se* but as a tool to support the main bank system through cross-shareholdings. Many politicians and big businesses profited from the rigged stock markets at the cost of small investors. It was the Japanese version of “crony capitalism.” The macro-financial “insider control” scheme thus has turned out to be a breeding ground for corruption—and the subsequent disastrous banking mess that had to be cleaned up with the use of hundreds of billions of dollars of tax-payers' money. .

3.3. *The inner-dependent industries as a politically protected (pork-barrel) sector*

3.3.1. *Emergence of structural dualism and the “Japanese disease”*

The Japanese economy has been successful in nurturing dynamic comparative advantages and climbing up the ladder of industrial upgrading under its own style of infant-industry protection strategy. It has been able to transform initially disadvantaged industries into competitive (and comparatively advantaged) ones under the IS-EP industrial policy. In the meantime, however, Japan also has had many once heavily regulated and protected industries, protected from competition both domestic and foreign, but especially from the latter, if not by outright tariffs, quotas and bans on inward FDI, then by regulations and red tape. The upshot is that a new industrial dualism has emerged: a highly multinationalized (initially only outwardly) efficient sector and a secluded import-averse, inward FDI-restrictive sector (see Figure 3).

The former may be called the *outer-focused* (OF) sector and the latter the *inner dependent* (ID) sector. The OF sector was best represented by automobiles and electronics, while the ID sector included the erstwhile

⁸ It should also be mentioned in passing that the stock market in Japan was once often “influenced” by the government in terms of administrative guidance rather than actual purchases and sales in the market. Until the mid-1980s, for example, the share prices of major Japanese banks remained nearly constant for long periods of time, since regulators wanted “to limit stock price fluctuations in an effort to influence the public's perception of risk at banks” (Genay, 1999) through administrative guidance.

sheltered “inefficient” primary industries (e.g., agriculture and fisheries) and services industries (such as telecommunications, transportation, wholesaling and retailing, construction, finance, insurance, and maintenance services --e.g., auto repair), as well as some manufacturing industries that are heavily domestic-market focused (e.g., food and beverage). In the beginning, extensive protection and a web of regulations were applied to the entire economy. In general, the OF sector was under the purview of the Ministry of International Trade and Industry (MITI), while the ID sector was under the supervision of a variety of inward-looking ministries: the Ministry of Agriculture, Forestry and Fisheries, the Ministry of Posts and Telecommunications, the Ministry of Transportation, the Ministry of Construction, the Ministry of Finance, the Ministry of Internal Affairs, the Ministry of Health and Welfare, and the Ministry of Labor, although some of them also had overlapping regulatory power over the OF sector in varying degrees and forms.⁹

These government ministries have been the home of the interventionists promoting the development of domestic industries under their jurisdictions, thus continuing the bureaucratic tradition established by the Japanese government after the Meiji Restoration of 1868. As a latecomer nation, government ministries and agencies were created, as Johnson (1982) so aptly observed, not so much as “civil servants” per se, as in the United States, but rather as “task-oriented mobilization and development agencies” whose main functions were originally “to guide Japan’s rapid forced development in order to forestall incipient colonization by Western imperialists.” That is to say, their current predispositions toward controls are path dependent—and justified from a nationalistic point of view.

The OF sector began to emerge as Japan pursued a FG-style strategy of dynamic “infant industry” protection (that is, IS-EP). For example, to modernize the heavy machinery sector (such as electric turbine and generator) which Japan had already built in the prewar days, the motto was “the first machine imported, the second machine domestically produced under licenses.” What made Japan’s infant industry protection work was the test of exporting; import-substituting domestic production was ultimately aimed at export markets, forcing the

⁹ Although MITI has often been perceived by outsiders as a staunch protectionist guarding Japan’s manufacturing sector, it was the first ministry to become “internationalist” or “globalist”—by Japan’s past standard if not by international standards—simply because of the need of most Japanese manufacturers to go overseas as multinationals. MITI has become much more internationally minded than, say, the Ministry of Finance and the Ministry of Posts and Telecommunications, not to speak of the Ministry of Agriculture, Forestry and Fisheries, and the Ministry of Labor.

industry to improve on not only prices but also quality, eventually enabling it to leap scale economies (dynamic increasing returns). Japan's automobile industry, which initially had to come up with "less scale-dependent/scaled-down technologies," is the best example; the early-on protection of a small domestic market and a large number (more than ten) of domestic automobile producers who vigorously competed in entering this growth industry, as depicted by the "reserved competition" formula (Ozawa 1997), created a conducive/compelling environment for the birth of a so-called "lean or flexible production" originally at the hands of Toyota Motor Corp. (Ohno 1978; Womack, Jones, and Roos, 1990).

As dynamic comparative advantages were acquired in the OF sector, its rising trade surplus began to cause a sharp appreciation of the yen and an ever-rising competitive pressure on the ID sector. Hence this intersectoral effect via the foreign exchange market is the Japanese version of the "Dutch disease." Imports should have become available to Japanese consumers at cheaper and cheaper prices in yen terms, but they were either hindered by trade and inward FDI barriers or they were not delivered/passed through at cheaper retail prices (i.e., the exchange gains were simply pocketed by the highly regulated/protected distribution sector). In fact, instead of having competitive forces rationalize the ID sector, the government used to hold on to—and even reinforced through administrative guidance—its regulatory involvement to further shelter the ID sector. The reason was that the ID sector as a whole (but especially finance, construction and distribution) was the key political power base (that is, financial source) of the Liberal Democratic Party, Japan's long-lasting political party since the early postwar period. This is the reason why the ID sector may be most appropriately called a "pork-barrel sector."

This aggravated all the more severely the structural gap between the two sectors in respect to their openness to the outside world and productivity, a gap which continued to be reflected in price discrepancies between home and foreign markets at the retail level. To cope with the ever-rising yen, the OF sector had to keep raising productivity to remain export competitive. As the sector succeeded in this endeavor, however, it again faced another round of yen appreciation because the ID sector did not absorb imports sufficiently enough to relieve the upward pressure on the currency. In other words, the OF sector came to be entrapped in a treadmill: a

“vicious” cycle from a struggle for productivity improvement and a greater trade surplus, to a higher-value yen, and to an even greater need for cost cutting (Ozawa 1997).¹⁰

It should be stressed that the two structurally differentiated sectors are not totally separate, but are interconnected in a variety of ways. For example, the manufacturing side of Japan’s automobile industry is in the OF sector, but its domestic distribution side and some of its suppliers of inputs are in the ID sector. Japan’s automakers established their own networks of exclusive dealerships as well as their own multi-layered systems of parts suppliers. There is little doubt that their tight control on distribution was one important hindrance to car imports. Even though one automaker’s exclusive dealership discriminate equally all other compatriot competitors (hence some argue that it is not discriminatory only to imports), the exclusive dealerships set up by *all* the major domestic producers as a whole surely became a barrier to imports.

Particularly as the result of their exclusive *keiretsu* sales arrangements, Japan’s automakers have been able to maintain relatively price-stable and profitable market conditions at home, which until recently was enhanced by Japan’s steady macroeconomic growth (Itami 1994). The same situation applies to the consumer electric/electronics goods industry. Thus, the *keiretsu* groups straddle both the OF and the ID sectors. And the OF portion of their business activities often benefit from the ID portion (distribution). This may explain, at least in part, why price duality occurred between home and abroad (Ito and Maruyama 1991).¹¹

3.3.2. Excessive outward FDI and the “price-industry-flow (a la David Hume)” syndrome

In the OF sector, the incessant drive to product and process innovations, and notably the spreading of “lean or flexible production” techniques from the automobile industry to other assembly-based OF industries such as electronics, further helped expand Japan’s manufacturing exports, causing inevitable trade conflicts overseas. Assembly-based firms (that is, “differentiated Smithian” industries) first set up assembly operations in their

¹⁰Thus the Japanese version of the “Dutch disease” became even more *complicated* and *aggravated* because of interactive feedbacks between the two sectors—and needs to be identified *sui generis* as the “Japanese disease.” The Japanese genre is self-inflicted by politics and aggravating on the OF sector, while the Dutch genre is externally inflicted by a high world price of natural gas (i.e., the market) and involves a situation in which one sector damages others uni-directionally. And Japan’s present problem with deflationary pressure stems from this origin of the disease

¹¹ In addition to the *keiretsu*, the more protected the domestic market is, the easier it is for Japanese producers to price discriminate against their home consumers. Price discrimination is a “hidden” form of creating subsidies—that is, let domestic consumers indirectly subsidize exports and domestic production. The OF-ID dual structure provides a mechanism that allows such subsidization (Ozawa 1997).

core export markets, North America and Europe. This move actually increased Japanese exports of parts and components, further ballooning Japan's trade surplus. In the meantime, the ID sector continued to hinder imports—hence a further appreciation of the yen and an aggravation of the “Japanese disease.” The ID-sector-connected government ministries and politicians continued to protect their own turfs, resulting in a rigidification *a la* Olson (1982) of macro-organizational institutions (Japan's old catch-up regime) and their practices.

The super-yen began to wipe out the price competitiveness of the OF manufacturers. In response, these manufacturers began to transplant more price-sensitive segments of production involving low-end products and standardized parts and components to low-cost countries, mostly in Asia, via FDI, original equipment manufacturing (OEM), and subcontracting. And Japanese manufacturers in the OF sector began to import from their own overseas ventures and business affiliates. Thus, many once exporting industries in the OF sector have become multinational users of imports—and in fact, become import-promoting due to the appreciating yen. In other words, *paradoxically, it is not so much the ID sector but the initially export-competitive OF sector that has become increasingly more and more import-dependent.*

There is strong evidence that during the abnormally overvalued yen period (over 1985-1995) Japanese firms did transplant production excessively abroad—excessively because some FDIs were induced not so much because they lost *real* competitive/ comparative advantages, but rather because the abnormally high yen made it *distortionally more costly* to produce at home than abroad. The “price-distortion” effect of the foreign exchange rate was thus the primary cause of the sharp growth in Japan's outward FDI in the 1985-1996 period (actually comprising two surging waves of outward FDI in 1986-1991 and 1994-1996).¹² In other words, FDI became overwhelmingly a financial manifestation *a la* Aliber (1993) rather than a *real-market* optimization.

This meant that Japan became a high-cost country, and many Japanese firms moved out of Japan not so much because they were genuinely attracted to overseas host countries (which offered, say, some promising local markets or truly favorable, first-best industrial milieu) but rather because they *had to escape* from the

¹² This means that the “assembly-transplanting” type of outward investment shown in Figure 1 became exaggerated.

ever-increasing cost burden of home-based production.¹³ One government agency study (Small and Medium Enterprise Agency 1996: 268) reveals a close correlation between the trend (curve) of “internal-external price differential” and that of outward FDI (as a ratio of domestic capital investment) over the 1975-1994 period. Thus, an orderly transplantation of only comparatively disadvantaged industrial activities was switched to a distortional, premature and disorderly transfer of still comparatively advantaged activities from Japan.

The excessive overseas investment compelled by the overvalued yen caused fears about a possible “hollowing-out” of Japanese industry and rising unemployment. In response, Japanese industry kept minimizing the contraction of domestic productive facilities instead of closing down while simultaneously expanding overseas production. The upshot was an additional rise in excessive corporate productive capacities, which is now haunting Japanese industry.

In short, it is a paradoxical development, since such a successful and strong industrial buildup in automobiles and electronics at home has been accompanied with precipitous industrial outflows (a threat of industrial hollow-out). *The more cost-competitive they became in their effort to remain in business at home, the greater the need for shifting production from home to overseas* This paradox can be described as the “price-industry-flow” mechanism by paraphrasing David Hume’s (1752) “price-specie-flow” mechanism. Hume stressed the fact that even if a country tries to run trade surpluses and accumulate precious metals by pursuing mercantilist policy, the precious metals thus gained will be drained out of the country, since its domestic money supply (under a metallic standard) will automatically rise, thereby causing inflation and making the initial trade surplus disappear (hence an outflow of precious metals). Similarly, the more successful Japan’s neo-mercantilist industry policy to build up manufacturing at home under protection and promotion was, the greater the upward pressure on the yen and wages at home—amplified by the distortion effect of the OF-ID dual structure; hence, the eventual decline of Japan’s home-based manufacturing. This analogy is surely appropriate, especially in light of Japan’s present struggle to dismantle and reform its FG catch-up regime.

¹³ Stephen Hymer’s (1960) seminal work emphasized the possession of “advantages,” the “removal of competition” and the “diversification” of business risks) as key motives for investing overseas. And these advantages are supposed to be substantially large enough to offset any cost of doing business overseas; otherwise, firms would stay home. The recent Japanese experience has another motive, a motive to escape from the rising unfavorable costs of home-based production which squeeze profits—that is, the “home-disadvantaged production”.

3.4. *The principle of “job primacy over efficiency” as an implicit social contract*

Although Japan did experience a brief period of labor strife between leftist-inspired unionists and management in the very early postwar period, it soon came to develop harmonious labor relations and began to concentrate on rebuilding Japan—especially after the sudden change in the occupation forces’ initially liberal labor policy and the subsequent crackdown on communist-controlled unions with the onset of the Cold War.

What has *evolved* from the early postwar chaos is the unique Japanese style of management and industrial relations, which Ozaki (1991) even called “human capitalism” or the “humanistic enterprise system,” because of its strong emphasis on human resource development. Sasakibara (1993, p. 4) argues that “the fundamental principle underlying the Japanese model of mixed economy is anthropocentrism.” In particular, “lifetime employment,” “seniority system” and “company unions” were until very recently singled out as the defining characteristics of the Japanese brand of corporatism.

Of course, in the war-devastated early-postwar Japan collaboration and cooperation were, on the whole, the necessities for survival rather than a choice. But Japan is also basically an egalitarian society, and Japanese businessmen have been traditionally beholden, with a strong sense of loyalty and obligation, to their own groups and subordinates. Unlike American society which is strongly embedded in individualism, self-centered and opportunistic behavior is not looked upon favorably in Japan. Hence, against the backdrop of the adverse economic conditions right after the war, the Japanese company came to be organized and governed as a multi-stake *sharing unit*, representing the interests of its employees (in job security and income), its creditors (in loan obligations) and its suppliers (in steady and reliable orders for sub-assemblies, parts, components and accessories)—in addition to the stake of its stock holders (in long-term corporate growth as “patient capital”). This feature is called “stakeholder model” and identified as a form of “shared growth” by the World Bank (1993) when it explored the secrets of “the East Asian Miracle.”

Indeed, one may argue that without such a “humanistic” orientation of the Japanese system the now-world-renowned “flexible production” paradigm would have never seen the light of the day during the “differentiated Smithian” stage of assembly-based growth. This new production paradigm is also called “Toyotism” as opposed to “Fordism-Taylorism.” What is especially revolutionary about it is the activation of intellectual

capabilities of shop-floor workers; they are no longer treated merely as “brawn workers” who only take orders as under Fordism-Taylorism but considered as “brain workers” who can figure out operational problems they encounter every day, suggest ways of solving them, and keep improving their own work processes. Aoki (1988) calls this phenomenon an active use of the “information-processing capacity” of workers. This practice soon spread to other industries and a variety of flexible production came to be innovated throughout Japan’s manufacturing sector.

In short, Japan’s labor relations which have thus evolved and contributed so much to the phenomenal growth in labor productivity are institutionalized/ingrained as a national asset and cannot be easily dismantled just for the sake of showing a favorable *near-term* “bottom line” by cutting payrolls so as to please investors in the stock market. The Japanese simply cannot put the livelihood interest of workers behind the pecuniary interest of financiers or rentiers. And this “belief system “ needs to be taken fully into account when one wonders why corporate Japan is so indecisive and slow in carrying out institutional reforms (or becoming more like the U.S.).¹⁴

4. Final assessment

Japan was once successful in pursuing the FG strategy of catch-up growth. In fact, it enjoyed high growth (a growth rate of about 10 percent annually) during the so-called Golden Age of Capitalism (1950-1974) by capitalizing on the favorable global environment, especially in the context of stable exchange rates (under the original IMF system) and intensification of the Cold War. In those years the United States opted for a foreign policy in favor of security, even at some cost to its own economic interests, to ensure Asia’s “continuous orientation toward Washington” (Cumings 1984). This policy allowed Japan an opportunity to harvest benefits from America’s liberal trade regime, the opportunity to pursue *dirigiste* capitalism or FG catch-up.

Japan’s *dirigiste* catch-up regime was quite effective in facilitating rapid industrial upgrading at home without creating foreign ownership of domestic industries. This regime worked nicely up until the late 1970s. Japan had by then gone through heavy and chemical industrial modernization (i.e., “nondifferentiated Smithian”

¹⁴ Japan’s societal value of egalitarianism was also taken advantage of as a political rationale for the ID sector --and particularly for providing a justification for pork-barrel politics (Patrick’s comment).

stage) and begun to build up assembly-based, component-intensive industries, notably cars and electronics (i.e., “differentiated Smithian” stage).

To recapitulate, the FG catch-up regime was built on a unique set of four key institutional arrangements: state-directed bank-based finance of development (the main bank system), *keiretsu* formation, the ID (“pork barrel”)sector, and Japanese-style management. This institutional setup proved quite effective, combined with a high level of postwar education and human capital formation, in inducing quick technological absorption, productivity increases and adaptive innovations. Learning occurred mostly in the form of licensing agreements. But, as Japan succeeded climbing the ladder of industrial development, these arrangements quickly became not only obsolete but more importantly obstructive to further growth. Bank-loan capitalism resulted in the 1987-1990 bubble and the present prolonged banking crisis with rising bad debts. The growth of a dual industrial structure (OF vs. ID) led to huge trade surpluses, sharp appreciation of the yen, and lopsided outflows of investment (both FDI and portfolio). Constrained by its social contract for job security, post-bubble Japan ended up with excess capacities, contributing to downward pressure on prices. Liberalization of imports in the distribution sector added to this woe. And all of a sudden, Japan found itself in a deflationary spiral. This is the “hidden” side, and an undesirable outcome, of Japan’s once successful FG strategy. The FG model is incomplete unless its institutional dimension is fully taken into account.

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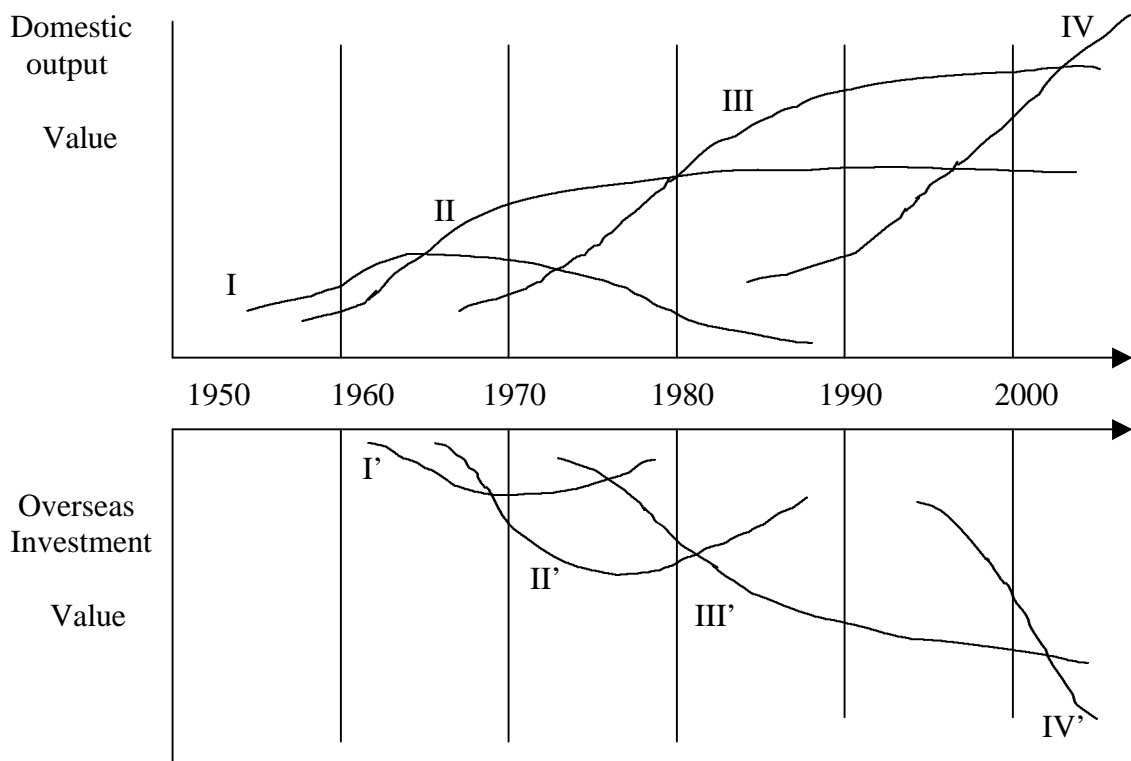
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Figure 1 Japan's industrial upgrading and overseas investment: comparative advantage
 Recycling (CAR) as adaptive efficiency enhancement (AEE)

Stages of industrial upgrading (a leading-growth-sector model)

- I Labor-driven “Heckscher-Ohlin” industries (e.g., textiles)
- II Scale-driven “nondifferentiated Smithian” industries (e.g., steel)
- III Component-intensive, assembly-based industries (e.g., autos and early-generation electronics)
- IV Innovation-focused R&D-intensive “Schumpeterian” industries (e.g., new materials, biotechnology and latest-generation electronics)



Phases of overseas investment

- I' Low-wage-labor-seeking “elementary” FDI
- II' Resource-seeking and house-cleaning FDI
- III' Assembly-transplanting/market-seeking FDI (inclusive of low-wage-seeking FDI in parts/components/accessories and low-end products)
- IV' Alliance-seeking (strategically networking) FDI in production, marketing and R&D

Note: The above trend curves are not drawn to exact scale—for illustrative purposes only. Output and FDI may be alternatively expressed in percentage terms when these trends are empirically verified.

Source: based on Ozawa (1993) with modifications.

Figure 2 The *dirigiste* catch-up regime (“institutional matrix”) of Japan’s FG development

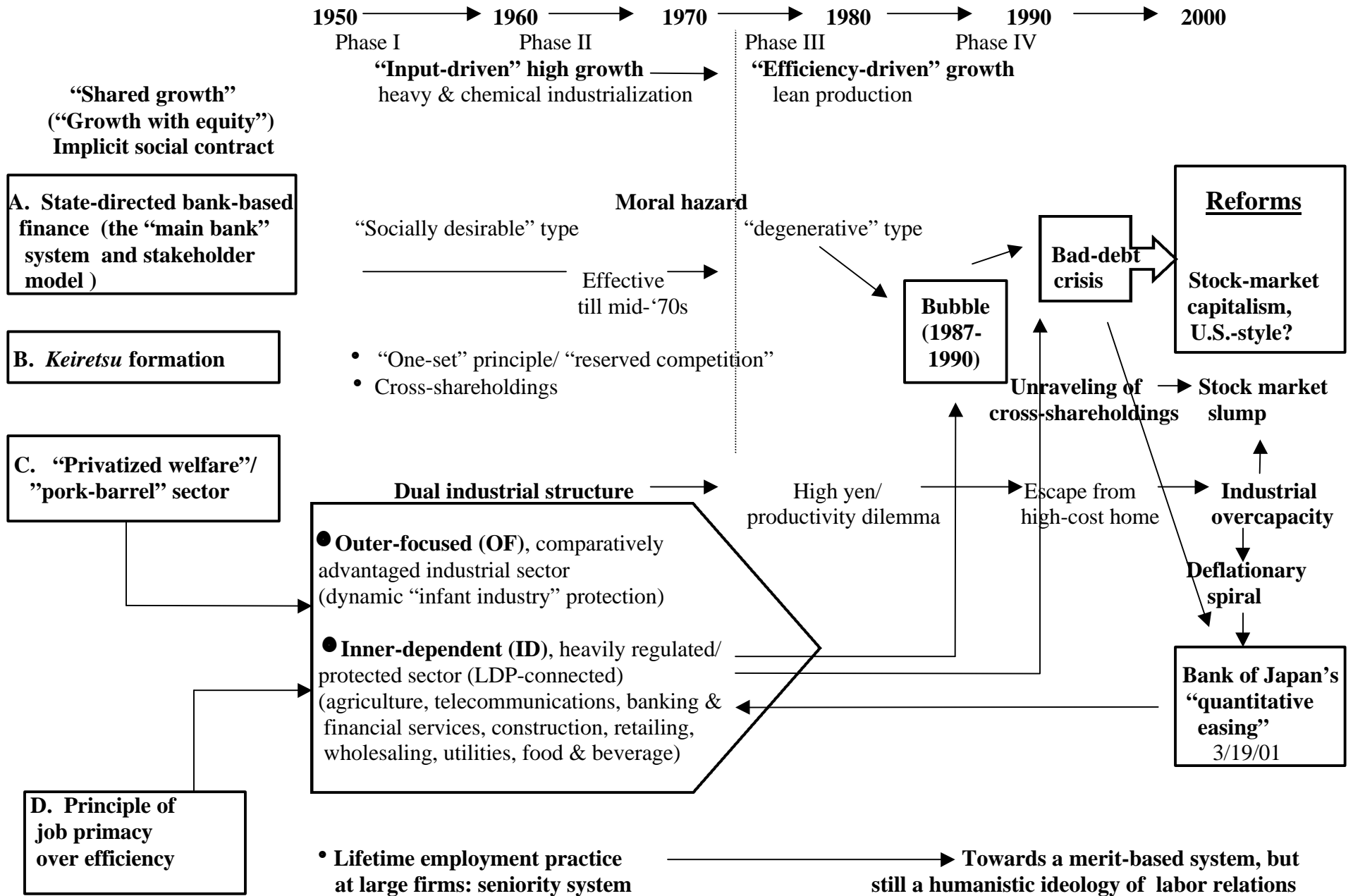
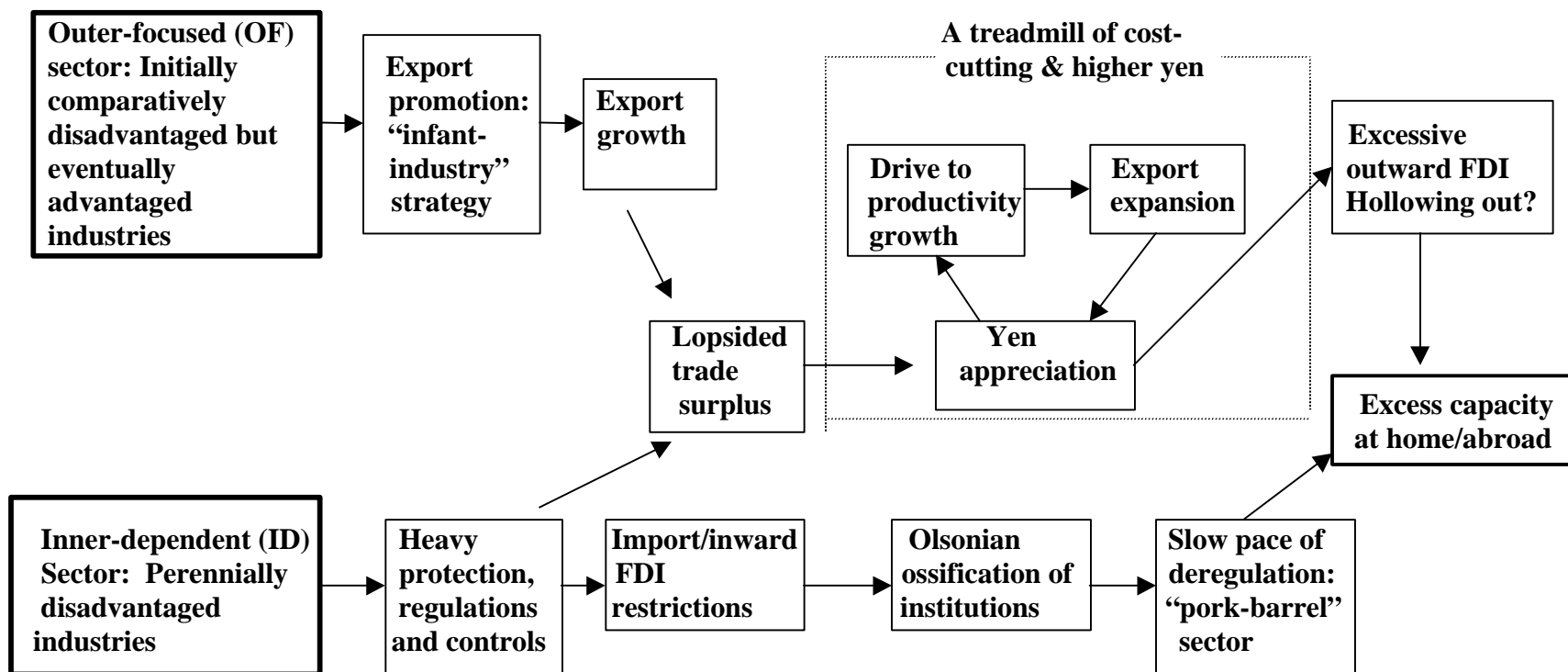


Figure 3 Structural dualism, the “Japanese disease” and the “price-industry-flow (*a la* David Hume)” syndrome



ID-sector: Agriculture, forestry, fisheries, food and beverage, telecommunications, transportation, wholesaling and retailing, construction, finance, insurance, real estate and other domestic-market-focused services.

The Ministry of Agriculture, Forestry and Fisheries, the Ministry of Posts and Telecommunications, the Ministry of Transportation, the Ministry of Construction, the Ministry of Finance, the Ministry of Health and Welfare, etc.

Source: Ozawa (1996)