

# Economic Development and Business Groups in Asia: Japan's Experience and Implications

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**Abstract** Large, extensively diversified pyramidal business groups of listed firms dominate the histories of developed economies and the economies of developing economies. While such groups (called *zaibatsu* in Japan) are thought to have provided coordination for big push growth successfully in pre-second-world-war Japan after a state-run big push failed, it is still being debated whether such a pyramidal business group driven big push coordination exists in developing countries elsewhere in Asia. We hypothesize that pyramidal business groups can be private-sector mechanisms for coordinating big push growth, provided that first, competition between rival groups induces a sufficiently high level of coordination efficiency, and second, conditions exist for maintaining economic openness and basic infrastructure and legal institutions. Another condition that must be satisfied for a country to sustain economic growth after its big push phase is complete is a timely demise of business groups. Where these criteria are not met, growth stalls and the few pyramidal business groups become too powerful to dislodge.

**Keywords** Economic development · Economic history · Japan · Privatization · Business groups · Asia

**JEL codes** O1 · O5 · L33

## Introduction

Economic development requires coordinated investment in many interdependent industries, and prescribes a flood of state-controlled investment across all sectors—a so-

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called big push (Rosenstein-Rodan and Paul 1943). This state-dependent prescription did not materialize because widespread government failure defeated twentieth-century ‘big push’ schemes. However, rapid economic development would still require coordinated growth across sectors, spillovers across firms and industries and from public goods; and hold-up problems and capital market limitations are real. Can it be done without government failures?

Large, extensively diversified pyramidal business groups of listed firms dominate the histories of developed economies and the economies of developing economies. While such groups (called *zaibatsu* in Japan) are thought to have provided this coordination successfully in pre-second-world-war Japan after a state-run big push failed, it is still being debated whether such coordination is being successfully provided by pyramidal business groups that are found in developing countries in Asia.

We hypothesize that pyramidal business groups can be private-sector mechanisms for coordinating big push growth, provided that (1) competition between rival groups induces efficiency unattainable in a state-run coordination mechanisms, and (2) additional conditions exist such as economic openness, basic public goods, rule of law, and separation of the state from business. Finally, another condition that must be satisfied for a country to sustain economic growth after its big push phase is complete is a timely demise of business groups. Our case studies suggest that where these criteria are not met, growth stalls and the few pyramidal business groups become too powerful to dislodge.

In this paper we compare Japan’s pre-war experience with contemporary pyramidal business groups in China, South Korea and other countries in Asia. In particular we show that even though South Korea’s *chaebols* were modeled after Japan’s pre-war *zaibatsu* and China’s business groups were modeled after Japan’s pre-war *zaibatsu* as well as contemporary *keiretsu* business groups, their country-specific business and institutional circumstances imply different economic behavior for these business groups over time and hence different paths of economic development in these countries.

## Big Push, Pyramidal Business Groups and Economic Development

Rosenstein-Rodan and Paul (1943) and others state that rapid development requires a big push, the coordinated rapid growth of diverse complementary industries. They suggest a role for government in providing such coordination. Morck and Nakamura (2007) argue that, after the Meiji government failed at the task in the mid 1800s, Japan’s *zaibatsu*, or pyramidal business groups, provided this coordination. We propose that pyramidal business groups are private sector mechanisms for coordinating and financing big push growth, and that unique historical circumstances aided their success in prewar Japan. Specifically, Japan uniquely marginalized its feudal elite; withdrew its hand with a propitious mass privatization that rallied the private sector; marginalized an otherwise entrenched first generation of wealthy industrialists; and remained open to foreign trade and capital.

### A State-Coordinated Big Push

Rosenstein-Rodan and Paul (1943) suggested a state-coordinated big push to kick-start sustained growth. Murphy et al. (1989) revived the idea by noting that “a car factory is

scant use in a country without steel mills, oil refineries, gas stations, mechanics, roads, or people with disposable income.” Economic development requires coordinated growth of demand and supply across multiple sectors, as firms in each exploit increasing returns to scale, often with firms in one sector bearing losses as another develops. Without coordination, growth falters because of a range of market failures. With coordination, increasing economies of scale in each growing industry spillover into growth opportunities in other sectors.

### A Key Problem

A well-recognized key problem in coordinated development is that the first movers risk hold-up problems. Hold-up occurs when one business’s return depends on others’ actions. For example, digging a coal mine next to a planned steel mill exposes the mine to a hold-up. The steel company can demand cut price coal by threatening to walk away, leaving the mine without a nearby customer. Each wants the other to move first.

Information asymmetries and adverse selection problems prevent the two parties from contracting their way out of the impasse. At worst, nothing happens. At best, one or both operate on inefficient scales. Vertical integration may solve this problem under some circumstances: if a single company digs the mine and builds the steel mill, the problem evaporates.

The problem of coordinating rapid development across an entire economy is more complicated. Some goods are complementary: a creamery does little business unless consumers have refrigerators. Other cross-industry dependencies take the form of network externalities: having a phone does a business little good if its suppliers and customers lack phones. Financial, legal, and physical infrastructure development, all critical to an economy’s ability to support entrepreneurship, share many characteristics of network externalities. Individuals’ investment in human capital also has such characteristics. Yet other coordination problems turn on having enough consumer demand to achieve economies of scale in production. Rosenstein-Rodan concludes that integrating all such interdependencies within a single entity is essentially a call for central planning, and calls for the state to coordinate and subsidize a massive cross-industry surge of capital investment, a big push.

### State Coordination and Central Planning to Achieve Big Push

State coordination and central planning to achieve big push has been criticized by other researchers. These criticisms include the following.

- Easterly (2006): they provoke government failures;
- Bauer (1972): development depends on individual freedom, and that burdensome government causes poverty traps;
- Hayek (1945): governments lack the detailed information needed to coordinate a big push;
- Kornai et al. (1980): state subsidies distort investments by softening budget constraints;

Krueger (1974): extensive government intervention magnifies returns to political rent seeking, deepening poverty traps;  
 Baumol (1990), Murphy et al. (1991), Murphy, et al. (1993): high political rent-seeking returns divert entrepreneurs from the positive externality investments needed for a successful big push.

Easterly (2006) concedes that the only successful big push is Meiji Japan.<sup>1</sup> We therefore investigate this success, and find it to be an informative anomaly. In the late 19th and early 20th centuries, Japan's Meiji government organized a big push, much like that advocated by the United Nations (UN) Millennium Project. In the late 19th century, the government capitalized and subsidized numerous state-owned enterprises (SOEs), but government failure problems soon triggered a fiscal crisis. To restore public finances, Japan conducted a mass privatization as the 19th century drew to a close. Wealthy families and entrepreneurs assembled former SOEs into *zaibatsu*, large diversified pyramidal groups of listed firms. Japan then entered its high growth era and Rostow et al. (1956) estimates its economic takeoff as complete perhaps by 1900, 1914 at the latest. *Zaibatsu* are typical examples of highly industrially diversified family-owned pyramidal business groups. Highly industrially diversified business groups are ubiquitous in developing economies.

We propose that pyramidal business groups are mechanisms for private sector coordination of a big push growth via "tunneling", transferring wealth from one group firm to another. With tunneling coordinating growth across industries and a controlling shareholder preventing hold ups, business groups provide an alternative to a state-orchestrated big push.

### **Zaibatsu Groups in Japan's Meiji Period (1868–1912)**

*Zaibatsu* began as family-controlled business groups. They developed into pyramidal groups by early 1900s but were dissolved after the second World War. Similar pyramidal business structures are found in other countries. We should note, however, that *zaibatsu* pyramidal groups are uniquely Japanese, very unlike post-WWII *keiretsu* groups.

In a pyramidal group of firms, an apex firm holds control blocks in a first tier of listed firms, each of which holds control blocks in other listed firms, each of which holds control blocks in yet more listed firms. A pyramidal structure of this sort can leverage family wealth sufficient to control one firm into effectively unconstrained control over an arbitrarily large constellation of firms worth vastly more (Morck and Nakamura 2007). This type of ownership structure was diligently followed in Japan's *zaibatsu* family groups. For

<sup>1</sup> The Meiji era is a Japanese era which extended from September 1868 through July 1912. Japan's modernization formally began with the establishment of the Meiji government in 1868.

example, see the structure of the Mitsui *zaibatsu* in 1914 (see Morck and Nakamura 2007). There are previous studies in the literature on pyramidal business groups that are found in different countries. Ohkawa and Rosovsky (1973) see *zaibatsu* as foreign technology importers. Their evidence matches our thesis, for a big push coordinates new technology investment across complementary industries. Without specifically mentioning the big push literature, they state: "...the most famous *zaibatsu* [were] based on the rapid industrialization that had occurred in the first two decades of this [20th] century." Although it is difficult to generalize, perhaps one can say that in the 19 century commerce was the major activity of *zaibatsu*. Around World War I it was industry with particular emphasis on coal mining, shipbuilding, engineering, and glass. In the 1920s, it became sophisticated industries.

Khanna et al. (2001) and others argue that "business groups substitute for corrupt capital, labor, and product markets." They find that group firms outperform freestanding firms in corrupt economies, explaining that group firms can safely deal with other firms in the same group while freestanding firms risk being cheated at every turn. They also stress market failures.

Central coordination facilitates a big push by sidestepping hold-up problems and coordinating growth across industries. Given an efficient legal system, contracts between independent firms might substitute for a common controlling shareholder under some circumstances. Certainly, a greater centralization of control is plausibly needed to achieve a big push where corruption is rife.

## Tunneling and Pyramidal Business Groups

Most work stresses tunneling, the controlling shareholder siphoning wealth from listed group firms to benefit himself, as a primary *raison d'être* for business groups. Our thesis accords with this too. Coordinating a big push requires the massive tapping of national savings, so group firms need public shareholders. It also requires group firms in some industries to subsidize those in other industries, and to forsake hold-up opportunities. Their shareholders would understandably perceive this as tunneling and as poor governance. An undisputed controlling shareholder is needed to overrule them so the big push can proceed. Thus, evidence of tunneling between group firms accords with our thesis.

### Tunneling, Stock Returns and Dark Sides of Business Pyramids

One objection to this reasoning is that extensive tunneling deters the public from buying group firms' shares. However, this misapprehends agency theory. Rational shareholders forecast tunneling losses and discount share prices accordingly. At low enough prices, they buy and earn equilibrium risk-adjusted returns. Expected tunneling reduces insiders' proceeds from floating a set fraction of a firm's shares, and its cost, like all expected agency costs, falls on the initial owners at the initial public offering (IPO). Expected tunneling

raises firms' costs of tapping public equity, but does not exploit public shareholders. But a large literature portrays a dark side to pyramidal groups.

Note that many researchers explain the dark side to pyramidal groups<sup>2</sup>:

- aging tycoons and the heirs to great business families often undermine sustained growth. Once wealthy, they see a dynamic and consequently unstable economy as threatening a status quo they enjoy.
- untalented, but well-connected heirs to old-money pyramids find political rent-seeking their highest value investment. This could retard growth as effectively as government failures in a state-run big push.

This dark side to pyramidal groups seems initially to contradict our thesis. But the dark side characterizes business groups controlled by geriatric tycoons or inadequate heirs, not the highly talented controlling shareholders of the other discussions. Big pushes generally fail, and a natural progression from entrepreneurial controlling shareholders to entrenched heirs might convert growth-promoting pyramids into growth-blocking artifacts.

If so, how can we explain Japan's oddly successful big push? Big pushes generally fail because of a natural progression from entrepreneurial controlling shareholders to entrenched heirs. This natural progression might have failed in Japan because of: (1) uniquely sweeping early shock therapy marginalizing the feudal elite, (2) a fiscal crisis draining bureaucratic power, and (3) in later years, military governments (Japanese and American) marginalizing *zaibatsu* families. Also, (4) Meiji Japan's so-called "unequal treaties," even when renegotiated, limited trade and investment barriers, leaving openness in the economy.

Openness checks elites' power, and thus the downsides of pyramidal groups. The unequal treaties gave foreign courts jurisdiction in concession enclaves, providing Japanese unobstructed views of foreign jurisprudence, likely helping Japan implement an effective legal system – which further limits these downsides. Openness also lets imports and exports, as well as foreign capital, compensate for missing or misscaled parts of the domestic economy as a big push builds. Japan's propitious timing and persistent openness may thus highlight conditions for successful big pushes that might be deliberately imposed elsewhere.

## **State-Owned Enterprises, A Big Push and Zaibatsu in Japan's Economic Development**

### **Institutional Reform**

Before its big push, Japan underwent sweeping institutional renewal that uniquely marginalized traditional elites. Unique in depth and scope, this 'shock therapy' may well explain Japan's ultimately successful 'big push' and the failures of analogous efforts elsewhere.

<sup>2</sup> For example, Berle and Means (1932) fear extreme governance abuses in pyramidal groups.

*Historical Background Prior to the Meiji Restoration (1868)*

Prior to the arrival of Admiral Perry's warships in 1854, Japan was remarkably isolated. The Tokugawa Shoguns ruled Japan from 1603 to 1868, preserved a rigidly stratified society. The elite were samurai, an hereditary caste of warriors with the power of life and death over their inferiors; the lesser castes were peasants, tradesmen below them, and merchants lowest of all. In 1853, the United States dispatched about one-fourth of its navy to Japan. Their humanitarian goal, lifting the death penalty on foreigners shipwrecked off Japan, veiled a commercial mission: opening Japan to American traders.

The commander, Admiral Matthew Perry, sailed into Tokyo Bay in violation of Japanese law, presented Tokugawa officials a draft trade treaty, and continued on to China. In 1864, he returned with a larger fleet and, under American cannon, the Shogunate signed the Convention of Kanagawa, which protected shipwrecked sailors, let U.S. ships buy coal, and opened Shimoda and Hakodate to American traders. Japan's accession to the Victorian global economy was formalized with the 1858 Treaty of Amity and Commerce. This U.S.-imposed treaty opened Tokyo, Kobe, Nagasaki, Niigata, and Yokohama to American trade, fixed low tariffs, and gave consular courts extraterritorial jurisdiction over "concession" areas in those ports. Similar treaties with Britain and other Western powers soon followed. Japan was thus suddenly flung open to free trade and foreign investment in the concessions.

These agreements were denigrated in Japan as unequal treaties because they enforced no similar concessions for Japanese in foreign countries, and were renegotiated in 1899. Tariffs rose very slightly, but foreign companies could now operate throughout Japan. General Electric, Western Electric, Vickers Armstrong, and other major firms starred in a large-scale foreign direct investment inflow that continued until 1930. Japan remained open to foreign trade and investment until the Great Depression.

Modifying the German Civil Code in stages, and with grafts from other legal models, Japan rapidly built a state-of-the-art late 19th century legal system. Regulations permitting public bond trading arrived in the early 1870s, and an 1878 stock exchange ordinance opened the way for equity markets in Tokyo and Osaka. By 1888, Japan's civil code was fully as sophisticated as its German prototype.

Under the new code, Mitsui, Sumitomo and other merchant houses were suddenly general partnerships subject to previously unknown constellations of laws that overrode house rules and family councils. Adaptation proved beyond the capabilities of some merchant houses, and severely strained others. Mitsui and Sumitomo survived, but navigating the aftershocks was simple for neither. Both modernized by adopting Western technology, textiles manufacture and mining technologies, respectively, and by supplementing general trading with banking as money gained acceptance.

A new generation of entrepreneurs without Tokugawa roots emerged also. Yataro Iwasaki (1834–1885) organized Mitsubishi around a state-subsidized shipping monopoly. The government wanted Japan to be a maritime power, and Iwasaki stepped forward to help. From 1875 on, his Yubin Kisen Mitsubishi Kaisha shipping company received ¥250,000 annually for carrying government mail. This subsidy protected Mitsubishi from foreign competition. Quickly acquiring 37 seafaring ships, Mitsubishi soon carried most of Japan's foreign trade. More subsidies flowed through the state-owned Nagasaki Shipyard, which lost money repairing and maintaining

Mitsubishi ships – probably at cut rates. Iwasaki plowed his rapidly rising earnings into capital investment, and Mitsubishi grew rapidly to rival Mitsui and Sumitomo.

### *The State Driven Big Push*

Japan's shock therapy aimed to build modern munitions plants, shipyards, and the like. Although Mitsui and Sumitomo embraced new technology for spinning silk or refining copper, and supplemented their trading operations with banking, they remained cool towards utterly new industries. This perhaps reflected a realistic assessment of their expertise, but building new business plainly required outside capital and neither family dared risk joining Shimomura and Ohmura who financed growth with public equity and lost control to outsiders.

### *The Meiji Government Resorted to State Owned Enterprises (SOEs)*

SOEs would build new industries essential to modernization. More SOEs would be needed to provide inputs to the first set, and still more to build railroads and other infrastructure. The new strategy quickly developed into a big push as SOEs materialized in one modern industry after another. This effort was massive. From 1868 to 1885, the Industry, Interior, and Agriculture Ministries "special subsidy funds" of ¥52.9, ¥4.6, and ¥9.6 million total ¥69.3 million for SOE operating deficits, frontier development initiatives, and targeted loans. Adding the ministries' operating costs – ¥15.4, ¥3.1, and ¥18.1 million, respectively – totals ¥42.4 million, bringing the grand total to ¥111.7 million per year.

Separate accounts for new SOEs, an investment capital trust fund, and other programs total ¥16.1 million. Finally, prefecture industrial promotion grants total ¥1.6 million. In total, subsidies and their administration cost ¥127.83 million from 1868 to 1885. Given Japan's national income – ¥397 million in 1878, the first year of data – these sums are huge for the era.

### *Government Failure*

To finance its big push, the government seized control of all taxation, abolishing the feudal rice tax and requiring payment in coin from 1873 on. This plus earnings from state-owned mines reduced the state's exposure to agricultural prices. From 1871 to 1875, the government's primary balance (tax revenues less ordinary expenditures excluding interest) remained marginally positive. But this could not finance thoroughgoing modernization. The state therefore borrowed. Its first bond issue raised £1 million at 9 % in London in 1870 to finance state railways, with duties and future railway profits as collateral. A second London issue in 1873 raised a further £2.4 million at 7 % due in 30 years for warlords and samurai pensions. These were abruptly terminated in August 1876, freeing up the funds. This issue was collateralized by general revenues plus up to 400,000 t of rice, worth about \$16 million, slightly more than the annual interest. In total, these two issues netted ¥16 million.

Their fiscal situation deteriorated sharply in 1877, when suppressing the Seinan Uprising, Japan's last feudal rebellion, cost ¥41.57 million, roughly 70 % of the previous year's budget. The government managed the immediate crisis by borrowing

¥15 million and printing ¥27 million in inconvertible paper currency. The soaring money supply fuelled inflation, which induced the national banks to quicken their presses. Japan was now in an unsustainable inflationary spiral. The finance minister, Masayoshi Matsukata, resolved to confront the crisis with a dual reform. His monetary reform unified the currency. Previously only coinage was official, and private national banks issued banknotes in currencies of their choice. Matsukata created the Bank of Japan in 1886.

Matsukata's fiscal reform was a general belt tightening, slashing subsidies and raising money by privatizing SOEs en masse. The SOEs hemorrhaged money, and Matsukata's predecessor, Shigenobu Okuma, was fired amid a political struggle after proposing a mass privatization in 1880. Matsukata, finding virtually every SOE, save a few mines, a looming fiscal disaster, recognized mass privatization as the only escape from economic and political collapse. Accepting economic liberalism was inescapable. Initially, this was grudging. Subsidies slowly fell for many SOEs, but continued for maritime shipping, railways, and silk. But resistance faded as fiscal crisis loomed, and ending all subsidies soon seemed imperative. Matsukata initially merely slashed SOE subsidies and shelved plans for new SOEs. This hardened SOE budget constraints.

As in modern transition economies, this improved governance. From mid-1878 on, each SOE provided detailed income statements and balance sheets. Remarkably, the state previously only tabulated aggregate expenditures and revenues of all SOEs.

These reforms had three key effects. First, modern accounting made SOE managers' budgetary excesses visible to their superiors. This instilled appreciation for economic reality, and undercut lobbying for expanded subsidies. Second, the worst SOE money drains were evident, raising political pressure to privatize them. SOE balance sheets also gave politicians book values, reflecting past subsidies to each. These were substantial, and the prospect of recovering these amounts through privatizations seemed increasingly attractive. Third, dissenting voices reiterated that SOEs were intended to pull the whole economy towards comprehensive modernization, with gains in some offsetting losses in others. Some of this was likely disingenuous, for at least some sectors should have posted gains. But the crisis made SOEs justify benefits against realistic cost assessments, including opportunity costs recoverable via privatizations.

A few SOEs escaped the mass privatization: military suppliers, mints, government printing, railways, postal services, and telegraphs. However, military suppliers judged obsolete or unimportant were privatized, and private railways and military suppliers displaced SOEs as subsidies ended and SOEs sold off plant and equipment. With few exceptions, SOEs were on the block.

### *Mass Privatization*

The state privatized 26 large SOEs by 1896. The model was the Takashima mine, nationalized in 1874, then sold to its manager, the merchant and Meiji politician Shojiro Goto, in 1875. Goto financed the deal, essentially a management buy-out (MBO), with debt, including a loan from the British firm Jardine Matheson. Production rose, but earnings struggled to cover hefty interest costs. Still, the government paid ¥400,000 to nationalize the mine and got ¥550,000 privatizing it less than a year later, netting ¥190,000 at prevailing exchange rates. Repeating this with other SOEs promised fiscal salvation.

The first mass privatization attempt was an 1880 law offering 14 money-losing SOEs at gross book value (book value with no depreciation allowance) to buyers screened by officials for financial resources, though not ability or expertise. Unsurprisingly, virtually no buyers appeared. Under escalating fiscal pressure, and reluctantly conceding that most SOEs were not worth their gross book values, the government passed another privatization law in 1884, offering profitable state-owned mines to the highest bidder (Table 1).

### *Private Business Reactions*

Sumitomo, Japan's major private mining business remained aloof. Sumitomo ran the Besshi copper mines for the Tokugawa, and the Meiji government confiscated these as state property in 1868. Soon realizing they needed Sumitomo expertise to operate the mines, the government reversed itself a month later. But Sumitomo's general manager, Saihei Hirose, distrusted the government and bid for no SOEs in this or subsequent privatization rounds. His only reaction was to hire expert engineers away from former SOEs. Sumitomo exclusively operated the Besshi copper mines for profit for the period (1690–1973).

Mitsui in contrast, Mitsui, bid enthusiastically in every major privatization round. Its major purchases: the Shinmachi and Tomioka silk textiles mills, bought in 1887 and 1893, respectively; also the Miike Coal Mine (bought in 1888) and the Hokutan Coal Mine & Railway (1889).

Mitsubishi the Iwasaki too entered the fray. Shojiro Goto was struggling to keep Japan's first privatized SOE, the Takashima mine, out of bankruptcy. Yataro Iwasaki once worked under Goto, but showed no interest until an elaborate sales contract was drafted in 1881 by the Meiji statesman Yukichi Fukuzawa. The contract imposed strict financial conditions on the departing Goto, but gave Mitsubishi clear title after a one-time payment terminating the mine's debts. Mitsubishi paid ¥859,636.45, and ¥259,636.45 to the state and ¥600,000 to Takashima's creditors. Iwasaki saw the mine's remaining reserves and salvage value as marginal, but apparently sought political capital by rescuing Goto. The mine continued to operate for profit until 1986. Mitsubishi acquired 20 more coal mines from 1884 to 1911. Eleven were large-scale operations that compensated for Takashima's falling output. The expertise developed at Takashima proved invaluable, for coal was essential to Japan's rising chemical and heavy industries, positioning Mitsubishi well to retain its national champion status and attendant political influence. However, perhaps unsurprisingly, being a national champion ultimately became a liability. By the late 1870s, rival politicians took to attacking Mitsubishi for manipulating shipping and passenger fares. After two major Mitsubishi supporters, Toshimichi Okubo and Shigenobu Okuma, retired, more politicians attacked Mitsubishi for redirecting shipping subsidies to other businesses. Mitsubishi developed ship maintenance, shipbuilding and iron production in Yokohama, its primary port. These facilities were gargantuan, with 1882 sales revenue of ¥187,338, assets of ¥119, 986, and over a hundred thousand employees. In 1887, Mitsubishi bought another major SOE, Nagasaki Shipyards, which it operated at the government's request since 1884.

**Table 1** The Meiji mass privatization program: Details of important state-owned enterprises privatized between 1874 and 1896

Sale date	State-owned enterprise	Book value (to Dec. 1885)	Est. value (June 1885)	Sale price	Initial buyer	Subsequent buyer, sale date	Current status (successor firm)
Nov. 1874	Takashima Coal Mine	¥593,848 <sup>5</sup>	–	¥550,000	Shojiro Goto	Mitsubishi, 1881	Closed, 1986 (Mitsubishi Material)
Phase I privatization							
June 1882	Hiroshima cotton spinning	54,205 <sup>5</sup>	–	12,570	Hiroshima Menshi Boseki Co.	Kaizuka Boseki, 1902	
Jan. 1883	Aburato Coal Mine	48,608	17,192	27,943	Nariteru Shirase	Mitsubishi, 1896*	Closed, 1956 (Mitsubishi Material)
Phase II privatization							
July 1884	Nakakosaka Iron Ore	85,507	24,300	28,575	Yahachi Sakamoto, others		Closed
July 1884	Cement Manufacturing & Fukagawa Shirorengishi	101,559 (combined)	67,965 (combined)	61,741 12,121	Soichiro Asano Katsuzo Nichimura	Nihon Cement Shinagawa Shirorenga	Closed (Taiheiyō Cement)
Oct. 1884	Nashimotomura Shirorengaisai	–	–	101	Raizo Inaba	–	–
Aug. 1884	Kosaka Silver Mine	547,476	192,000	273,659	Shosaburo Kuhara	–	(Dowa Kogyo)
Dec. 1884	Innai Silver Mine	703,093	72,993	108,977	Ichibei Furukawa	Furukawa Kogyo	Closed, 1953 (Furukawa Kogyo)
Mar. 1885	Ani Copper Mine	1,673,211	240,772	337,766	Ichibei Furukawa	Furukawa Kogyo	Ani Kozan, 1973
May 1885	Shinagawa Glass	294,168	66,305	79,950	Katsuzo Nishimura, Eiichi Isobe	–	Closed, 1892
June 1885	Daikatsu Makiyama Gold Mine	149,546	98,902	117,142	Sen Abe	Mitsubishi, 1888	Osarizawa Kozan, 1972 (Osarizawa, 2014)
Nov. 1886	Aichi Cotton Spinning	58,000	?	?	Naoto Shinoda	–	Burned down, 1896
Dec. 1886	Sapporo Brewery	?	?	27,672	Kihachiro Okura	Sapporo Beer, 1887	Sapporo Beer

Table 1 (continued)

Sale date	State-owned enterprise	Book value (to Dec. 1885)	Est. value (June 1885)	Sale price	Initial buyer	Subsequent buyer, sale date	Current status (successor firm)
May 1887	Shinmachi Textile (Silk)	138,984	?	141,000 <sup>7</sup>	Mitsui	Yasushi Asaba, Kanebo, 1911 (Kanebo, 2014)	Kanebo Co.
June 1887	Nagasaki Shipbuilding	1,130,949	459,000	459,000	Mitsubishi	Mitsubishi Heavy Ind.	Mitsubishi Heavy Ind.
July 1887	Hyogo Shipbuilding	816,139	320,196	188,029	Shozo Kawasaki	Kawasaki Heavy Ind.	Kawasaki Heavy Ind.
Dec. 1887	Kamaishi Iron Ore	2,376,625	733,122	12,600	Chobei Tanaka	Kamaishi Kozan, 1924	Nippon Steel
Jan. 1888	Mita Agricultural Tools Mfg.	?	?	33,795	Shun Koyasu	Tokyo Kikai Mfg.	Tokyo Kikai Mfg.
Mar. 1888	Banshu Vineyard	8,000 <sup>8</sup>	?	5,477	Shomei Maeda		
Phase III privatization							
Aug. 1888	Miike Coal Mine	757,060	448,549	4,590,439	Hachiro Sasaki	Mitsui, 1889	Mitsui Coal, closed, 1997
Nov. 1889	Hornai Coal Mine & Railway	2,291,500 <sup>8</sup>		352,318	Hokkaido Tanako Tetsudo	Mitsui, 1889	Hokkaido Tanako Kisen, closed, 1989
Mar. 1890	Monbetsu Sugar Beats	258,492 <sup>10</sup>		994	Kuminari Date	Sapporo Seito, 1895	Closed, 1896
Sept. 1893	Tomioka Textiles (Silk)	310,000 <sup>11</sup>	105,000 <sup>10</sup>	121,460	Mitsui	Katakura Kogyo, 1939	Closed, 1987
Sept. 1896	Sado Gold Mine	1,419,244	445,250	1,600,000 <sup>8</sup>	Mitsubishi	Mitsubishi Materials	Closed, 1973
Sept. 1896	Ikuno Silver Mine	1,760,866	966,752	1,600,000 <sup>8</sup>	Mitsubishi	Mitsubishi Materials	Closed, 1973

For the most part, the Meiji government's burnt fingers kept its hand out of the economy in subsequent decades. After the mass privatization, Japan established only one new state-owned enterprise, Yawata Steel, in 1901. This fiscal probity let Japan return to bond markets when necessary to sustain government spending and refinance old debts. The government raised ¥45 M from 1884 to 1889, and floated a ¥175 M sequenced issue from 1886 to 1897. Japan's subsidies to business remained small until World War II (Morck and Nakamura 2007, p.568).

### *Examples of Zaibatsu Pyramidal Structures*

The increasingly complex pyramidal structure, with more tiers of controlled listed firms, let the Mitsui reposition firms to their advantage. Mitsukoshi, heir to the ancestral silk business, moved to a low tier after its 1904 transformation into a department store chain. Oji Paper and Kanebo, firms of national prominence, also placed in low tiers; as did Shibura Engineering Works, which merged with Tokyo Electric to form Tokyo Shibura (Toshiba) Electric in 1939. General Electric confirmed Shibura's importance when it bought a 25 to 30 % stake in 1904 for technology licensing. It seems plausible that firms were positioned to maximize the family's returns, while minimizing its risk. Putting highly profitable low risk firms in the top tier accomplishes this.

However, firms might also be repositioned to facilitate tunneling – to facilitate big push growth, to concentrate net profits in firms owned directly by the family, or both. This too is consistent with superior performance of firms higher in the pyramid, and the location of many clearly important firms in lower tiers. Records attest that Mitsui Partnership carefully considered which firms to place where, and what stake each should hold in others. As the *zaibatsu* grew more complex from 1912 to 1930, lower tiers were periodically restructured, but the upper tier changed little. Mitsui Bank, Mitsui Bussan, Mitsui Mining and Toshin Warehousing remained Mitsui Partnership direct subsidiaries. The only significant change added Mitsui Life Insurance and Mitsui Trust Bank to the first tier after 1912. Mitsui's intensive diversification began with Mitsui Mining's entry into chemicals in the early 1910s. The Mitsui textiles business needed dyes, and a Mitsui chemicals firm grew apace with the textiles operation. Mitsui Bussan founded a shipbuilding firm in 1917 to complement its export business, bought a steel mill in 1924 to supply its ship building and electrical equipment operations, and established Toyo Rayon to enter artificial fibers.

This coordinated diversification wave occurred exclusively through new subsidiaries of Mitsui Mining, Mitsui Bank and Mitsui Bussan, or new subsidiaries of subsidiaries. The growth of the Mitsui *zaibatsu* seems consistent with a privately orchestrated big push enabled by the increasingly active public equity markets. The state declared many of these industries priorities, but subsidies were now checked by legislators' reluctance to undermine public finances again. Instead, the Mitsui turned to equity markets. Statutes precisely defining the nature of a business corporation and the rights and liabilities of its shareholders made stocks and bonds viable ways for people to save. The Mitsui responded to each such legal reform with more share issues, increasingly using public equity issues as necessary to expand existing firms or enter new industries.

### *By 1909, Most Mitsui Subsidiaries Were Listed*

Older upper tier subsidiaries such as Mitsui Bank, Mitsui Bussan, or Mitsui Mining typically controlled newer high-growth companies, which drew on public equity (and some debt). Thus, earnings from Mitsui Mining and Mitsui Bussan helped capitalize high growth subsidiaries in chemicals, machinery, shipbuilding and maritime shipping. These ventures fulfilled government development plans, but public share issues, not subsidies, funded their growth. In contrast, Mitsui's ancestral silk business, now the financially staid Mitsukoshi Department Stores, controlled no major subsidiaries and sat quietly in a lower tier. Mitsui's pyramidal structure seemed generally consistent with Mitsui Partnership channeling earnings and public savings into high growth industries, consistent with a big push. Tables 2, 3 and 4 show the growth of Japan's pyramidal business group ownership structures over time until they were forced to dissolve in 1945/1946 at the end of the second World War.

### Other Pyramids of Japan

The Nissan Pyramid (formed by Husanosuke Kuhara, Yoshisuke Aikawa) a late arrival, because by 1919, Kuhara controlled 30 % of Japan's copper mines, 40 % of its gold mines and 50 % of its silver mines, all financed by a ¥2.4 million IPO to capitalize his Kuhara Mining. The older *zaibatsu* families clearly understood the advantages of

**Table 2** Ten *zaibatsu* combines designated by holding company liquidation committee (HCLC) for dissolution

Zaibatsu	Number of subsidiaries in 1937	Number of subsidiaries in 1946	Paid-in capital as % of Japan's 1946 total <sup>a</sup>
Mitsui	101	294	9.4
Mitsubishi	73	241	8.3
Sumitomo	34	166	5.2
Yasuda	44	60	1.6
The big four total	252	761	24.5
Nissan	77	179	5.3
Asano	50	59	1.8
Furukawa	19	53	1.5
Okura	51	58	1.0
Nakajima	-	68	0.6
Nomura	-	19	0.5
The other six total	197	439	10.7
Top 10 zaibatsu total	449	1200	35.2

Source: Compiled by the author from sources including HCLC volumes as cited in Hadley (1970), Takahashi and Aoyama (1938, pp. 151–152)

<sup>a</sup> Japanese government estimates for Japan's paid-in capital in 1946 are: 32 billion yen (Ministry of Commerce and Industry), 43 billion yen (Ministry of Finance) and 48 billion yen (Bank of Japan). The HCLC used the Ministry of Commerce and Industry estimate without any explanation in deriving these figures

**Table 3** Industrial diversification of the 10 major *zaibatsu* in 1945, in millions of yen

<i>zaibatsu</i>					<i>zaibatsu</i> Total	<i>zaibatsu</i> (% of economy)
	Finance	Heavy industry	Light industry	Other		
Mitsui	169	2,214	274	404	3,061	9.4
Mitsubishi	160	1,866	73	605	2,704	8.3
Sumitomo	65	1,469	29	102	1,667	5.2
Yasuda	209	119	117	64	510	1.6
Nissan (Aikawa)	5	1,558	103	38	1,703	5.3
Asano	0	419	89	76	594	1.8
Furukawa	4	479	3	4	490	1.5
Okura	6	218	34	56	314	1.0
Nakajima	0	188	24	0.768	213	0.6
Nomura	26	50	27	62	165	0.5
Top 10 <i>zaibatsu</i> total	644	8,582	773	1,412	11,420	35.0
Economy total	1,215	17,513	4,600	9,108	32,437	100.0
Top 10 <i>zaibatsu</i> (% of economy)	53	49	17	16	35	

Source: compiled by the author from sources including (HCLC, 1950), Japanese *zaibatsu* and its dissolution, as cited in Yasuoka (1976, pp. 34–35)

public equity, but balanced these against privacy and undisputed control. This balance limited public shareholders' participation, for it required unambiguously dominant control blocks throughout the pyramid. The apex firm of the Nissan group, in contrast, was widely held, and could issue shares to create new subsidiaries, like Nippon Metal, or acquire control blocks in already listed companies. Aikawa rapidly built Nissan into a large, diversified *zaibatsu*, though machinery remained its most important business. His technical expertise, still rare in Japan, made him irreplaceable to the group's core profit centers, so Aikawa needed no control blocks. This let Nissan expand rapidly, since equity financed mergers and acquisitions (M&A) permitted faster growth than constructing new facilities.<sup>3</sup> Aikawa (1934) specifically justifies using overall profits to subsidize losses in key firms, and investing in "a few new business lines" that would lose money, but were nonetheless "important to the nation" and likely to augment Nissan's long run financial health. These ventures included an auto manufacturing firm, subsequently named Nissan Motor, an Antarctic whaling business, and a broadcasting company. This cross-industry and intertemporal subsidization, financed by current earnings from a constellation of industries, is precisely what big push development strategists envision.

As Nissan grew, Aikawa carefully structured voting blocks and crossholdings so every listed subsidiary was unambiguously controlled by other group firms (Table 5). This was presumably necessary because big push growth requires

<sup>3</sup> See Aikawa's diagram in the Nissan Pyramidal Group showing tunneling to sustain a big push (Morck et al. (2005), 2007).

**Table 4** Ownership structures of top four *zaibatsu* in 1945

	Firms	Shares	Percent stakes of <i>zaibatsu</i> parties			
			Family	Apex firm	First tier firms	Total
Mitsui	1	10,000	63.6	–	0.9	64.5
First tier firms	10	17,979	9.5	53.9	11.9	75.3
Second tier firms	13	9,038	0.0	35.9	17.2	53.1
Mitsubishi	1	4,800	47.8	–	10.8	58.6
First tier firms	11	41,234	1.4	28.9	15.3	47.5
Second tier firms	16	8,053	0.2	18.2	40.3	58.7
Sumitomo	1	600	83.3	–	16.7	100.0
First tier firms	17	34,312	8.4	19.5	16.6	44.5
Second tier firms	6	5,325	0.5	12.7	30.7	43.9
Yasuda	1	300	100.0	–	–	100
First tier firms	20	9,469	3.5	24.3	17.8	45.6
Second tier firms	12	3,860	0.1	16.9	15.3	32.3

Source: Compiled by the author from sources including HCLC (1950), Ministry of Finance (1982)

firms in some industries to subsidize those in other industries. While this might optimize overall gains for the group, as reflected in Nissan's own share price, shareholders of subsidiaries conscripted to provide subsidies might hold up the transaction to seize the group's economic profits. Wielding a control block let Aikawa marginalize tetchy shareholders under such circumstances.

**Table 5** Kuhara mining company: the composition of shareholders, 1918–1927

	June 1918	June 1920	May 1927
Total number of outstanding shares	1,500,000	1,500,000	1,500,000
Total number of shareholders	9,761	13,842	14,858
Average number of shares held per shareholder	153.7	108.0	100.9
Shareholders with 5000 or more shares			
Total number of shareholders	31	20	18
Share ownership (%)	67.3	51.4	44.3
Average number of shares held per shareholder	32,566.5	38,550.0	36,916.7
Shareholders with fewer than 500 shares			
Total number of shareholders	9,544	13,649	14,739
Share ownership (%)	28.5	35.8	39.6
Average number of shares held per shareholder	44.7	40.0	40.3
Kuhara family and relatives	45.6 %	45.1 %	37.3 %

Source: Compiled by the author from sources including Morck and Nakamura (2005, p. 395) and also Udagawa (1976)

## Pyramid Power

Japan transformed itself from a feudal barter economy into a modern industrial state in one lifetime, with its real living standards doubling from 1885 to 1920, and tripling by World War II. The Japan that achieved this economic miracle is quite different from the Japan of today. Its financial system was market-centered, for equity finance predominated. It entrusted corporate governance to powerful families and tycoons, who organized listed firms into pyramidal groups, and likely maximized their own wealth, concentrated in the pyramids' apex firms. We note that apex firm value maximization is unlikely to coincide with shareholder value maximization in any individual lower tier firm.

### *What Can Go Wrong With the Pyramids*

Why did Japan's big push succeed, while similar programs in Latin America, South Asia, and Africa repeatedly fail (Easterly 2001, 2006)? We propose that Japan's unique success occurred because its feudal elite, then its reformist government, and finally its *zaibatsu* families, propitiously bowed out.

- 1) Japan's feudal elite was uniquely marginalized by early Meiji shock therapy. Elsewhere, traditional elites, intent on preserving their social and economic dominance, are thought to stifle growth. After the failed 1877 Seinan Uprising, Japan's feudal elite was a spent force.
- 2) The Meiji state too was propitiously marginalized. It began a classic big push, subsidizing SOEs in all major industries. Standard government failure problems forced a mass privatization to restore government finances. Thus burned, the state avoided subsidizing industry or establishing SOEs for several decades. This left business largely to itself. Elsewhere, big push programs remain state-directed indefinitely, magnifying political rent seeking returns. Rampant government failure, unsurprisingly, strangles growth after an initial spurt.
- 3) Japan's *zaibatsu* took over the big push, brought it to completion, and then were also abruptly marginalized. Economic development stalls when old money families manipulate the state to entrench their status. This could not happen in Japan, for the *zaibatsu* families were fortuitously sidelined after a couple of decades of rapid growth. The military government, which seized power in the 1930s through assassination, blackmail, and intimidation, had a surprisingly populist – in some respects, almost socialist – ideology for a fascist dictatorship. Coining an expression that echoes through financial history, the military condemned *zaibatsu* families for an unpatriotic short term focus on the current earnings and dividends of their apex firms. Acting on these concerns, the military de facto took control of the investment policies and strategic decisions of the country's great corporations. Whether *zaibatsu* families were co-opted or conscripted is debated, but the military substantially sidelined them. The US occupation's *zaibatsu* dissolution program completed their marginalization. Justified on antitrust grounds, but probably to diffuse *zaibatsu* families' political power, the program confiscated the families' shares and intercorporate equity blocks, and sold these into the open market. Thus, Japan's *zaibatsu* families did not become an old-money elite of the sort Haber

portrays in Latin America. Instead, postwar Japan entrusted the governance of its largest corporations to professional managers. The *zaibatsu* families added momentum to the big push, but then lost their hold.

- 4) Finally, Japan's unequal treaties kept trade barriers low and precluded foreign investment barriers. Much work links elite entrenchment to financial insularity. These treaties empowered foreign courts to apply foreign law to disputes in treaty concession enclaves, demonstrating a spectrum of foreign legal systems in action. These working examples let Meiji Japan devise and rapidly implement a modern legal system. The structure of a country's legal system correlated with its financial development and growth. Japan's stock markets were large by contemporary standards in the early twentieth century. Openness also lets imports and exports, as well as foreign capital, substitute for missing pieces of the domestic economy in a big push.

### *Life Cycle Stages of Pyramidal Business Groups*

We have argued that the successful pyramidal business groups might contribute to the development of a national economy by providing private-sector coordination of planning (a la the big push). However, they also gain their (often massive) political power and become a significant rent-seeking organization, adding inefficiency.

Earlier we said: Pyramidal business groups have downsides. Well-known governance problems are: sons may not live up to their fathers' standards impeding further financial development; depressed IPO prices deter entrepreneurship; added risk in equity deters financial development; extreme concentration of economic power impedes development of property rights, middle class, democratic political institutions, etc. Rent-seeking may prove irresistibly attractive to pyramidal group controlling shareholders, but this might impede or even reverse institutional development.

### *Business Groups May Make Big Push Growth Possible, But Can Also Slow or Stop Growth? Should They Fade Away When Their Work is Done?*

While Japan's *zaibatsu* groups developed to hold a significant amount of political power, their behavior as a rent seeking organization in the 1920s through the beginning of the second World War was limited facing the military influenced government which was generally not favorable to *zaibatsu* groups' gaining more power. This is despite the fact that the government used *zaibatsu* groups for achieving national goals. Tax increases and other changes in controlling *zaibatsu* groups' business activities were introduced over time. So it seems that Japan's *zaibatsu* never had the mature period long enough during which they could gain massive rent-seeking activity, etc., noted above, before they were banned by the Allied Forces in 1945.

### *Post WWII Keiretsu Groups*

Sociologists regard contemporary *keiretsu* business groups in Japan as permeable networks of firms without the central core of control (Lincoln (2009)). So they are very unlike

pyramidal business groups. It is conceptually difficult to define the degree of the separation of control and ownership for a *keiretsu* group. *Keiretsu* groups, being highly visible, never acquired dominant market positions in many industries or product markets in Japan.

Where they are historically in terms of the stages of the lifecycles of Japan's (non-pyramidal) business groups is unclear. Nevertheless, that Japanese businesses including both *keiretsu* groups and other businesses that have political influence is undeniable. This might be contrasted with the current developments of the massive political influence of pyramidal groups such as *chaebols* in South Korea, family business groups in India and China's state owned as well as private pyramidal business groups (see below).

What happened in the U.S.? Reactions to pyramidal business groups in the U.S. include the following: loud public discussion about "robber barons" who run large US business groups, spades of frauds uncovered after 1920s bubble economy collapsed in 1929, and so on. The main issues are: Internal Revenue Service (IRS) concern about transfer pricing and other income shifting between group companies (analogous issue with MNCs), FTC concern about covert monopolies, and shareholder concerns about transparency and self-dealing. The Federal Trade Commission (1928) argued that pyramidal groups are frequently a menace to the investor or the consumer or both. Means (1930) argued that intercorporate dividend taxes are a measure to "prevent the evasion through affiliates" of the corporate income tax. Roosevelt (1942) argued that "Such control [pyramiding] does not offer safety for the investing public. Investment judgment requires the disinterested appraisal of other people's management. It becomes blurred and distorted if it is combined with the conflicting duty of controlling the management it is supposed to judge."

### *The Anglo-American Solution*

The solution consists of active policies to dismantle business groups. For example, Roosevelt's New Deal stipulated the following measures to dismantle business groups in the United States (Morck 2005).

- i. The Securities and Exchange Act enforces transparency, making tunneling harder to conceal intercorporate dividend tax at 10% of the regular rate.
- ii. No capital gains tax on property from complete liquidation of a controlled subsidiary.
- iii. The Public Utilities Holding Company Act "Death Sentence Clause" bans pyramids more than two layers in height in the public utilities industries.
- iv. Intercorporate dividends tax at 15% of regular rate.
- v. No capital gains tax on any assets from complete liquidation of a subsidiary.
- vi. Investment Companies Act regulates listed companies with extensive shareholdings in other listed companies as investment companies.

Many important US companies listed in 1937 reported recently eliminating one or more holding company structures.

### *What Happened in the UK?*

Franks Julian (2009) note that elimination of holding companies was implemented by a new LSE takeover rule, as follows. 1968 rule: if you acquire 30 % of any listed firm, you must acquire 100 %.

They also note that the UK was the first country to let pension funds hold stock. Pension fund lobbying led to the London Stock Exchange (LSE) takeover rule and pension fund pressure forced unwinding of UK pyramids in the 1970s.

### *The Lifecycles of Business Pyramids in Asia*

In South Korea, although it is unclear that the mature stages of Korea's pyramidal business groups, *chaebols*, are being experienced now, considerable evidence appears to exist that shows rent-seeking and other abusive activities.

In India, the large family-based business pyramids are also known to exercise significant political power (e.g. Tata). They have been operating successfully for a long time and studying their behavior as rent seeking groups might be of interest.

In China, the business groups are defined in terms of their size. Most large ones are SOEs which focus more on single industries (oil, resources, steel, etc.). On the other hand, private business groups are smaller and tend to be more diversified. Chinese pyramidal business groups need to be analyzed in terms of who controls them, particularly the role of the state even for private business groups.<sup>4</sup> Chi et al. (2008) argue that one reason that SOE pyramidal groups with expected tunneling activities are favored by the Chinese government is that by allowing specialized managers to focus on management, the state can more effectively grab the profits from these pyramidal group operations. They also argue that these SOEs will not be as efficient as comparable Western corporations. In China, corporate governance issues have arisen since China embarked on market-oriented economic reforms in 1978. The so-called industrial reform, whereby state-owned enterprises began to achieve more autonomy and government interventions in enterprise affairs were curtailed, is of particular importance. This process of change in the corporate governance of Chinese firms has been accompanied by a separation of ownership and control, resulting in a significant increase in the importance of the role of government bureaucrats as managers of state-owned enterprises, noting that these bureaucratic managers neither own state-owned firms nor represent the best interests of the people of China (Chi et al. 2008).

Unlike Russia and former socialist countries in Eastern Europe, China has focused on transforming state enterprise corporate control and on the changing relationship between government and enterprises, as opposed to promoting privatization of state-owned enterprises. Remember, the state continued to hold the dominant control power in (partially) privatized SOEs. While many aspects of the reform measures may increase the economic efficiency of state-owned firms, including more efficient production operations, nevertheless, state-owned firms do not seem to have reached the level of efficiency of Western corporations. One reason for this might be the lack of genuinely private large shareholders and shortages of managers with the sorts of specialized expertise associated with

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<sup>4</sup> For example, the United States government has been suspicious that large private pyramidal business groups such as the Huawei enterprise group is being subjected to government control, in particular, in the areas of espionage.

efficiency gains in productive activities for Western firms. The government has multiple functions which include economic functions to control state firms and social functions to promote full employment and provide affordable housing and pensions. In addition, bureaucrats have their personal interests, which were described as a “grabbing hand” by Frye and Shleifer (1997). For example, in China, some politicians pressure firms to give donations to so-called “image” projects that drain away firm profits, do not enhance social welfare, but only promote the politician’s image and help him advance his own career.

## Conclusion

Are pyramids built for eternity? If not, what can terminate them? We have discussed the following alternative terminations rules. The Anglo-American solution (active policies to dismantle pyramidal business groups) have been found effective. Tripartite solutions co-opt business group families in a “tripartite” bargain with big labor and big government that limits controlling shareholders’ power and freedom of action. However, we observed problems with tripartite solutions in Western Europe, Canada and Australia in the 1970s. These solutions lead to socially unstable corporate structures in the long-run, because prospective entrepreneurs, the young, and the unemployed are outside the tripartite bargain.

Does our Default Option Imply Everlasting Pyramids?

Wealthy families controlling business groups realize their advantage fades as institutions develop, and invest in rent-seeking to stunt institutional development (e.g. Latin America, South Asia, Arab countries, Africa).

Is the World Ready for a New Ideology of Reform?

Easterly concedes that Japan is exemplifying a successful big push, a government-coordinated expansion of interdependent industries that sidesteps hold-up problems. That Japan joined the modern world remarkably quickly is clear. The Meiji Restoration took place in 1868, and by the end of World War I. Japan was an industrial economy on par with much of Europe. But most of its big push was likely not government coordinated. Rather, Japan’s economic history suggests a big push can succeed under certain circumstances despite gloomy evidence to the contrary. Specifically,

1. The state gives an initial shove, marginalizing traditional elites, reforming basic institutions, perhaps even subsidizing technology imports, and then withdraws its hand. This withdrawal checks government failure problems.
2. Pyramidal business groups emerge to propel the big push. An undisputed controlling shareholder focusing on the apex firm’s value, prevents hold up problems and coordinates cross-industry subsidies, as group member firms tap public equity markets to capitalize cascades of subsidiaries spanning all relevant industries. At least to some extent, this echoes what a selfless central planner coordinating a big push would do.

3. The controlling shareholders are marginalized as the big push nears completion. This prevents entrenched oligarchy problems from reversing the big push.
4. All this is done with limited trade barriers and no barriers against foreign investment.

If this thesis is valid, Japan offers an alternative big push prescription for today's emerging economies. That Japan's experience is replicable is unclear. Inefficient SOEs became a political liability in Meiji Japan, perhaps because of Confucian expectations that bureaucrats should be honest. Japan's feudal elite, central planners, and *zaibatsu* families were auspiciously discredited in circumstances difficult to replicate elsewhere. Elites, once established, are usually hard to dislodge.

Our big push theory of pyramidal business groups differs from other explanations of pyramidal business groups. Business group firms may well let firms co-insure each other to spread risk. Group firms may well trust each other to do business in economies where corruption stymies arm's length dealing. Without denying such possibilities, we suggest a broader argument that subsumes them. The highly industrially diversified pyramidal structure common to business groups throughout the world permits a controlling shareholder to stem hold-up problems and coordinate growth across diverse complementary industries, permitting very rapid growth financed by public equity, a big push. Further research is clearly needed to test these ideas. If our thesis is valid, diversification in pyramidal business groups, at least in rapidly growing economies, should do more than spread risks. These groups should disproportionately contain firms that would risk hold up problems were they freestanding. Cross-subsidization should also balance growth across complementary industries, not just enrich controlling shareholders. In contrast, pure risk sharing implies that groups should contain firms whose returns are as little correlated as possible.

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