Finance and Governance in Developing Economies

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Abstract

Classic Big Push industrialization envisions state planners coordinating economic activity to internalize a range of externalities that otherwise lock in a low-income equilibrium, but runs afoul of well-known government failure problems. Successful Big Push coordination may occur instead when a large business group, acting in its controlling shareholder's self-interest, coordinates the establishment and expansion of businesses in diverse sectors. Where business groups play this role, many basic axioms of Anglo-American corporate governance, including the advocacy of shareholder value maximization and contestable corporate control, must be qualified.

1. THE TRAGEDY OF PERSISTENT POVERTY

The World Bank estimates that 25% of the population of countries it classifies as low and middle income subsisted on less than U.S. $1.25 per day in 2005 (World Bank 2010). That amounts to 1.35 billion people, approximately 21% of the planet's population, whose talents are largely squandered by the modern world. The number of potential death-defying medical researchers, job-creating entrepreneurs, and tuition-paying finance students we leave on the sidewalk is unknown, but obviously huge.

Persistent poverty correlates with deficiencies in education, health, government, etc. (Sachs 2008), but capital accumulation (Solow 1956) and especially allocation (King & Levine 1994, Rajan & Zingales 1998, Wurgler 2000) appear critical. Good corporate governance—meaning the efficient allocation of capital and other resources by corporations in the fundamental sense of Arrow & Debreu (1954)—is thus pertinent.

Shaky metonymies can obscure this. Many equate good governance with strict adherence to quality control, auditing rules, ideal proportions of independent directors, and other procedural tidiness. Financial economists measure governance with normalized share values (Shleifer & Vishny 1997), but this too confounds a thing with a possible attribute. High share prices indicate laudable resource allocation if elevated by high productivity, but not if by political rent seeking (Krueger 1974) or bubbles (Shiller 2005).

Each metonymy has merit. Administrative chaos, boards of yes men, and plummeting share prices sound credible alarms. Share values appropriately normalized (Morck et al. 1989, Jung & Shiller 2005) can often gauge governance meaningfully. But attributes of good governance in the United States can mislead in less developed countries (LDCs).

LDCs are not "America, but poorer." Even the term "corporate governance" prevaricates, for key governance decisions in LDCs affect business groups, not individual corporations (Khanna & Palepu 1997, La Porta et al. 1999, Morck 2010). Business groups are here defined as listed corporations controlled by other listed corporations (La Porta et al. 1999). The largest business groups in many LDCs can include dozens, even hundreds of distinct listed and unlisted firms and can encompass large swaths of national economies.

Moreover, the U.S. governance's focus on professional CEOs neglecting shareholders misapprehends the essential fact that most large corporations in LDCs have controlling shareholders (La Porta et al. 1999, Morck et al. 2000a): often other firms controlled by firms with wealthy families or tycoons at the end of the chain. Corporate CEOs are thus servants of a wealthy family or tycoon. The tension here is self-interested ultimate controlling shareholders versus other shareholders, not management versus shareholders. Indeed, controlling shareholders in LDCs, irked by impertinent help, will echo American calls for more "shareholder power."

Understanding good governance in LDCs requires understanding business groups. Sections 2 and 3 describe Big Push development (Rosenstein-Rodan 1943, Murphy et al. 1989b) and business groups' potential role therein (Morck & Nakamura 2007). Sections 4 and 5 consider governance and institutional implications, respectively.

2. THE BIG PUSH

At the level of individual businesses, the problem of economic underdevelopment is one of coordination (Rosenstein-Rodan 1943, Myrdal 1957, Murphy et al. 1989b, Rodrik 1996,

Rodriguez-Clare 1996, Morck & Nakamura 2007). Businesses in developed economies rely, usually unknowingly, on multitudinous other firms, each keeping prices near minimal costs (Matsuyama 1992). Because every firm relies not only on its own suppliers and customers, but on their suppliers' suppliers, customers' customers, suppliers' other customers, customers' other suppliers, etc., market power anywhere along a multistranded production chain can raise a firm's costs (de Fontenay & Gans 2004, de Fontenay 2004). Because firms may connect to multiple production chains, and because many products and inputs have complementary goods, each firm depends on the existence of efficient production and pricing in virtually every other sector in the economy (Matsuyama 1995, de Fontenay 2004). This network of existential externalities is absent or seriously incomplete in LDCs (Rosenstein-Rodan 1943).

A first mover in initial industrialization thus risks all manners of holdup problems (Williamson 1975, Adams et al. 2010). This makes poverty a stable equilibrium (Nelson 1956). Trade openness can substitute for missing sectors or discipline monopolies (Murphy et al. 1989a, Venables 1996, Trindade 2005), but only for cheaply transportable traded goods (Skott & Ros 1997).

Transportation costs are high because most LDCs lack tax bases to pay for infrastructure (Berkowitz & Li 2000). Private ports, roads, or railways, fearing holdup, rationally avoid building first (Murphy et al. 1989b). Unqualified, ill-paid, and predatory officials and inefficient judiciaries preclude contracting solutions, yet can be entrenched by revered traditional cultures that disparage business and seemingly endorse corruption (Banfield 1958; Putnam 1973; Hofstede 1980; La Porta et al. 1997; Schwartz & Bardi 2002; Guiso et al. 2004, 2008).

Further, firms need consumers, but well-paid employees are rare in most LDCs (Clark 1940, Kuznets 1953, Nurkse 1953, Lewis 1954). Each firm thus depends on wages and employment throughout the economy (Rosenstein-Rodan 1943, Myrdal 1957, Chen 1995, Becsi et al. 1999). Sustainably well-paid employees must be productive, and therefore educated and healthy, but public education and healthcare remain appalling in many LDCs (Sachs 2008). Specialization also raises productivity but risks starvation in LDCs where markets work poorly (Gans 1997).

Market power persists if entrants lack financing (Nurkse 1953, Williamson 1975). In many LDCs, financial systems are stunted (King & Levine 1993, La Porta et al. 1998), intermediation is costly (Becsi et al. 1999; De Soto 1989, 2000), and capital is allocated inefficiently (Rajan & Zingales 1998, Wurgler 2000). Most LDCs' financial systems are either state controlled (La Porta et al. 2002), with attendant government failure problems (Shleifer & Vishny 1998), or business family controlled (Caprio et al. 2007), with attendant elite capture problems (Morck et al. 2010). Foreign investment can help, but cultural, geographic, and other barriers elevate foreigners' risk (Caves 1982). Microfinance can help (Yunus 2008) but accumulates red tape if state run (Armendáriz & Morduch 2010) and tends toward usury if private (see Bloomberg Businessweek 2007).

This Gordian knot was first appreciated by Rosenstein-Rodan (1943), who describes a developed economy as an extraordinarily intricate network, and observed that many—perhaps most—nodes in that network are either absent or cartelized in LDCs. This conception of the problem of economic development has never been effectively challenged and continues to influence policy prescriptions in development economics (Murphy et al. 1989a,b; Rodrik 1996; Rodriguez-Clare 1996; Sachs 2005, 2008).

Rosenstein-Rodan's solution is more controversial. To cut this Gordian knot, he called for a Big Push: a massive state-coordinated investment in the entire network, each industry coming online and growing as needed by other industries to build a self-sustaining whole—with coordination entrusted to the economic planner, trained by Rosenstein-Rodan at the London School of Economics, and investment financed by a multilateral institution designed by Rosenstein-Rodan that would become the World Bank.

The importance of the Big Push in development economics is hard to overstate (Easterly 2001, 2006; Sachs 2005, 2008). Its often spectacular failure cost many LDCs added generations of penury but served economics by highlighting government failures (Krueger 1974; Shleifer & Vishny 1993; Acemoglu & Verdier 2000; Fisman 2001; 2002; Faccio 2006). Government failure, merely painful in developed economies (Stigler 1971, Acemoglu et al. 2010, Amore & Bennedsen 2010), can cripple LDCs (Shleifer & Vishny 1998).

A foreign aid–financed Big Push also now seems naïve. Like abundant natural resources, massive aid can undermine development. Most governments depend on corporate and individual taxpayers for revenues and must cater to them to some extent (Tiebout 1956, Buchanan 1965). But aid, like resources royalties, lets politicians ignore other constituencies if donors, or resources extractors, are happy. Its elite unconcerned about overall development, the country falls under an aid (Rajan & Subramanian 2007) or natural resources curse (Humphreys et al. 2007).

Rosenstein-Rodan (1943, p. 204) saw state control as essential because he saw finance as corporate: "Financial markets and institutions are inappropriate to the task of industrialization of a whole country. They deal with too small units, and do not account for externalities. Capital goes to individual firms ... There has never been a scheme of planned industrialisation comprising a simultaneous planning of several complementary industries."

3. THE BIG PUSH THAT WORKED

In fact, business groups are precisely "a scheme of planned industrialisation comprising a simultaneous planning of several complementary industries." Thus, Koo Cha-Kyung, Chairman of Korea's Lucky-Goldstar (LG) business group, recollects (Milgrom & Roberts 1992, p. 542):

> My father and I started a cosmetic cream factory in the late 1940s. At the time, no company could supply us with plastic caps of adequate quality for cream jars, so we had to start a plastics business. Plastic caps alone were not sufficient to run the plastic molding plant, so we added combs, toothbrushes, and soap boxes. This plastic business also led us to manufacture electric fan blades and telephone cases, which in turn led us to manufacture electrical and electronic products and telecommunications equipment. The plastics business also took us into oil refining, which needed a tanker shipping company. The oil refining company alone was paying an insurance premium amounting to more than half the total revenue of the largest insurance company in Korea. Thus, an insurance company was started. This natural step-by-step evolution through related businesses resulted in the Lucky-Goldstar (LG) group as we see it today.

Rosenstein-Rodan could not have described the coordination problems a Big Push must overcome more thoroughly or succinctly. LG remains an important Korean business group, containing 58 corporations, 10 listed. Such business groups feature prominently in virtually every developing economy (Khanna & Yafeh 2007), and in virtually every major developed economy in some historical era (Morck 2005a).[1]

In developed economies, corporate finance may well be central. But substantial literatures in finance (Fisman & Khanna 2004, Khanna & Yafeh 2007), and also in strategy and industrial organization (Leff 1978, Chang & Choi 1988, Caves 1989, Granovetter 1994, Khanna & Palepu 1997), show business groups circumventing various of the market failures that, entangled, constitute Rosenstein-Rodan's Gordian knot in LDCs. [Strategy work often defines groups using formal and informal ties between managers (Gerlach 1992, Hamilton 1997, Orrù et al. 1997, Keister 2004, Granovetter 2005, Khanna & Yafeh 2007), complicating its applicability here.] The role of business groups in a Big Push is thus not an alternative hypothesis to these lines of inquiry, but a potential unifying theme. [This unification is first proposed by Morck & Nakamura (2007) to explain Meiji Japan's rapid industrialization.]

One such line of inquiry documents the extraordinarily wide diversification of the large business groups that dominate most LDCs (Khanna & Palepu 1997, Khanna & Rivkin 2001, Khanna & Yafeh 2007). The largest may have a member corporation in every major industry. But Rosenstein-Rodan's (1943) Big Push is precisely about centralized direction of firms in "several complementary industries," and thus necessarily requires that business groups directing Big Push industrialization be widely diversified.

A second line of inquiry ponders the pyramidal form typical of large business groups (Bebchuk et al. 2000; Almeida & Wolfenzon 2006a,b). An apex firm controls a first tier of listed firms, each controlling other listed firms in a second tier, each controlling yet other listed firms in a third tier, etc. Because each corporation is controlled by its parent, and thus its parent's parent, etc., each is actually controlled by whoever controls the apex corporation, usually a wealthy old-moneyed family or tycoon (La Porta et al. 1999, Morck et al. 2005b, Khanna & Yafeh 2007). The basic pyramid structure is often augmented by dual class equity (Barontini & Caprio 2006) or cross shareholdings (Kang & Shivdasani 1997).[2] Regardless, the generally pyramidal structure leaves all firms in the group centrally controlled, enabling Rosenstein-Rodan's (1943, p. 204) "simultaneous planning of several complementary industries."

Yet other studies highlight the vulnerability of public shareholders' investments in group firms to oppressive controlling shareholders (Claessens et al. 2002). This vulnerability arises because the controlling shareholder invests primarily in the apex firm alone, yet controls all firms in the group. Firms in each successively lower tier of the pyramid are more completely financed with public shareholders' money. Indeed, outside shareholders provide most of the capital used by most firms in the group. But a Big Push industrialization entails the coordinated capitalization of an entire industrial economy: a huge undertaking that requires truly vast amounts of capital. Rosenstein-Rodan

[1]Business historians often appreciate that business groups, not corporations, are the meaningful unit of analysis for investment, financing, and other business decisions (Roberts 1973, Amsden 1989, Piramal 1998, Steers 1999, and others).

[2]Japan's postwar keiretsu business groups are the major exception. Relying heavily on cross-holdings, they formed as takeover defenses in an already developed economy amid postwar reconstruction (Morck & Nakamura 2005).

entrusts state planners with appropriately vast foreign aid inflows. Pyramidal business groups instead entrust huge pools of private savings to controlling shareholders who may, if their private gain induces Big Push industrialization, achieve the result he sought.

A fourth set of studies finds pyramidal group firms outperforming independent firms in LDCs (Amsden & Hikino 1994, Khanna & Palepu 1997, Chang & Hong 2000, Khanna & Rivkin 2001, Mahmood & Mitchell 2004). This could reflect such firms capturing quasi-rents from higher productivity (Amsden & Hikino 1994) or more effective rent seeking (Morck et al. 2000a). But business groups' successful coordination of Big Push industrialization would presumably yield vast quasi-rents.

A fifth line of inquiry uncovers large pyramidal business in the right geographical places at the right historical times. The major business groups of Taiwan (Tsui-Auch 2006), Malaysia (Gomez 2006), and Singapore (Tsui-Auch 2006) expand roughly in tandem with their rapidly developing economies. Large pyramidal business groups also feature prominently in the catch up growth of late industrializers: Canada (Morck et al. 2005a), Germany (Fohlin 2005), Italy (Aganin & Volpin 2005), Hong Kong (Claessens et al. 2000), Japan (Morck & Nakamura 2007), Singapore (Tsui-Auch & Toru 2010), Sweden (Högfeldt 2005), and Taiwan (Chung & Mahmood 2010). Earlier industrializers—America (Becht & DeLong 2005), Britain (Franks et al. 2005), and Holland (de Jong & Roell 2005)—developed without them, taking centuries. Moreover, America's Gilded Age trusts resembled pyramids in giving one robber baron, such as J. P. Morgan (De Long 1991), rule over many firms in diverse industries and in being financed mainly by public investors. Also, London-based pyramids organized rapid nineteenth-century industrializations elsewhere in the world (Jones 2000).

A sixth theme, discernable from the above literatures, reveals pyramidal business groups ubiquitous in genuinely developing economies, but not in LDCs termed developing only in politeness. The poorest LDCs lack active stock markets and foreign investment, and without outside equity, pyramiding provides no leverage. Instead, hawkers and small quasi-illegal businesses (De Soto 1989, 2000) complement creaky state- or elite-owned cartels (La Porta et al. 1997, 1999). Haber (2002) argues that insecure private property rights force large-scale business and government to integrate vertically: Either politicians control businesses or business families control the state. This too is consistent with pyramidal business groups permitting Big Push growth.

A seventh line of inquiry explores an exception that proves the rule. Japan's development is a widely cited example of a successful state-run Big Push (Okawa & Rosovsky 1973). Morck & Nakamura (2007) show that Japan established state-owned enterprises (SOEs) in every major industry in the 1870s to jump-start a modern economy. Soon, virtually all hemorrhaged money, and the ensuing budget crisis devastated the currency and Japanese government credit abroad. A liberal government organized the world's first mass privatization in the 1880s, auctioning off almost all the SOEs. Once burned, Japan practiced classical liberal economics until the military takeover in the 1930s. The privatizations ultimately handed most ex-SOEs over to pyramidal business groups organized by leading merchant families. An emerging middle class bought the public floats of scores of new pyramidal group firms needed by existing firms to provide inputs, buy outputs, produce complementary goods, etc. By the 1920s, Japan was an industrialized economy. Japan's development thus entailed a failed

state-led Big Push of the sort Rosenstein-Rodan (1943) advocated and a second successful Big Push featuring pyramidal business groups.[3]

Finally, several interconnected lines of inquiry show pyramidal business groups overcoming various market failures that constipate commerce in many LDCs (Leff 1978, Chang & Choi 1988, Caves 1989, Khanna & Palepu 1997, Khanna & Rivkin 2001, Fisman & Khanna 2004, Granovetter 2005, Khanna & Yafeh 2007). A successful Big Push must transcend all of these problems, each of which is now considered in turn.

Business groups are thought to circumvent product market failures. A solution to costly goods markets is their internalization: Two firms that would otherwise do business via a market merge into one, making their dealings internal transfers, not market transactions. This logic motivates diversification. U.S. conglomerates carried valuation premiums in the 1960s (Matsusaka 1993, Hubbard & Palia 1999), as did Morgan Trust firms in the 1920s (De Long 1991). But they became discounts in recent decades (Lang & Stulz 1994), and are linked to aggravated agency problems (Rajan et al. 2000, Scharfstein & Stein 2000).[4] Diversification premiums likewise fell as Chile (Khanna & Palepu 2000b) and Korea (Ferris et al. 2003) industrialized. Perhaps diversification constitutes good governance until markets become highly developed, whereafter agency problems predominate.

Importantly, diversification in LDCs generally means diversified business groups containing focused corporations in many sectors, not unitary conglomerates. The reasons for this are unclear. Perhaps business groups of freestanding firms better mitigate the agency problems that encumber large unitary conglomerates (Khanna & Palepu 1997, Claessens et al. 2002, Fauver et al. 2003), but this is wholly speculative. Regardless, member firms of LDCs' diversified business groups typically command either no average valuation discount or a premium.

Some evidence supports business groups fulfilling this role. Chang & Choi (1988) and Chang & Hong (2000) link Korean groups' superior performance to lower product market transactions costs, and Chilean and Indian surveys echo this (Khanna & Palepu 2000a,b). But overcoming product market transactions costs implies a specific form of diversification: vertical integration. This is observed in the Filipino (Khanna & Yafeh 2007) and Korean (Almeida et al. 2011) business groups. However, broader diversification is evident elsewhere. Perhaps interwoven production chains, complementarities, etc., require more nuanced diversification measures. Also, diversification premiums are uncorrelated with institutional development (Khanna & Rivkin 2001, Khanna & Yafeh 2007). However, if diversification provides a premium during a successful Big Push, but neither beforehand nor afterward, a nonlinearity ensues. Alternatively, diversified business groups might foster growth only in some LDCs.

Another problem business groups might circumvent is capital market failure. Pyramids require outside capital, and Big Push coordination requires capital transfers between group corporations. Pyramidal business groups thus arise where capital markets exist, but work

[3]Japan's postwar reconstruction, sometimes portrayed as a successful state-orchestrated Big Push, was neither. Rebuilding a devastated industrial economy differs from initial industrialization, and econometric evidence refutes a positive role for state planners (Beason & Weinstein 1996, Beason & James 1999, Beason & Patterson 2004; though see Pekkanen 2003).

[4]Morck et al. (1989) confirm causality, though reverse causation is possible too: Underperforming firms might diversify or court diversifying bidders (Whited 2001; Campa & Kedia 2002; Chevalier 2004; Villalonga 2004a,b).

poorly due to opacity (Maitreesh & Kali 2001, Kali 2003), risk (Kim 2004), etc. DaRin & Hellmann (2002) model banks coordinating Big Push growth amid weak capital markets. Our thesis expands this to posit such a role for business groups' controlling shareholders. As banks are prominent member firms in many LDC business groups, the two theses doubtless overlap. However, equity financing was important to late industrializers in the West, Meiji Japan, and recently industrialized Asian economies. Equity is more risk-tolerant than debt, and business groups' controlling shareholders can lower group firms' equity cost because their personal reputations substitute for transparency (Gomes 2000, Jones 2000, Khanna & Palepu 2005) or because group firms' mutual coinsurance mitigates risk (Hoshi et al. 1990). Either would also allow higher leverage (Chang 2003), facilitating an expanded role for banks.

Business groups clearly reallocate capital internally (Masulis et al. 2010), and often do so through a member bank (DaRin & Hellmann 2002), as in Turkey (Yurtoglu 2000, Colpan 2010). But other groups instead use a cash cow, often a regulated utility or natural resources firm, as in Korea (Baek et al. 2006, Almeida et al. 2011).[5] A Big Push requires group firms pooling earnings to fund the group's best opportunities (Almeida & Wolfenzon 2006b). Consequently, group firm capex is insensitive to firm earnings (Hoshi et al. 1990, Shin & Stulz 1998), but sensitive to group earnings in Korea (Shin & Park 1999) and Russia (Perotti & Gelfer 2001). Khanna & Palepu (2000a,b) attribute performance premiums of Chilean and Indian group firms to financing advantages.

Big Push coordination has groups capitalizing new firms in sectors existing firms need. Almeida & Wolfenzon (2006a) model groups' advantage from using retained earnings to capitalize new firms, but do not consider Big Push coordination. Khanna & Palepu (2005) liken India's Tata group to a venture capital fund.

A successful Big Push obviates internal capital markets by creating a financial sector, and some historical evidence accords. Related lending aided early growth in New England (Lamoreaux 1994) and of many British dominions and colonies (Jones 2000), but also features prominently in their financial scandals (Kindleberger 1978). Related lending aided Mexico's early twentieth-century growth (Maurer 1999, Maurer & Haber 2007), but hindered it late twentieth century (La Porta et al. 2003) as the North American Free Trade Agreement (NAFTA) member prepared for the Organization for Economic Cooperation and Development (OECD) accession. Related lending characterized Thailand's 1980s tiger economy, but destabilized its banks in the 1990s (Charumilind et al. 2006). If these cases generalize, developed economies need corporate finance, not business group finance (Chang 2003, Cull et al. 2006). Schumpeter (1911) envisions developed economies growing as creative entrepreneurs found new business empires, and much evidence supports this (King & Levine 1993, Fogel et al. 2008). Perhaps intragroup capital reallocation suffices for catch-up growth, but not for bankrolling innovative upstarts (Almeida & Wolfenzon 2006b).

Ghemawat & Khanna (1998) highlight labor market failure as another major problem business groups circumvent. A Big Push must mobilize and efficiently allocate the economy's whole labor force (Chen 1995). But LDCs' labor market transactions costs can be elevated by cultural traditions stressing duties to kin and discouraging dealings

[5]Japan's prewar government initially sought to use mining SOE to finance a Big Push, as advocated by Sachs & Warner (1999). After this failed, the Sumitomo pyramidal business group became a prime mover in a privately directed Big Push, using its mining operations as a cash cow (Morck & Nakamura 2007).

with strangers (Banfield 1958; Putnam 1973; Guiso et al. 2004, 2008). Business groups operate internal labor markets in India (Khanna & Palepu 1997), Korea (Chang 2003), and other LDCs (Khanna & Yafeh 2007) that let employees carry reputational capital between member firms. Chilean and Indian survey data reveal internal group labor markets more important than their product or capital analogs (Khanna & Palepu 2000a,b).

Public goods present a whole spectrum of market failures, which business groups might also mitigate. Educated workers are more productive, but education is a public good. Many LDCs lack tax bases to provide meaningfully universal public education (Berkowitz & Li 2000, Banerjee & Duflo 2008), limiting the pool of qualified teachers and locking in poverty (Easterly 2001). No firm dares finance its workers' schooling, for they might move to another—leaving the first with all the costs but none of the benefits of their schooling. The largest business groups constitute substantial fractions of national economies, so the worker's next employer might well be another group firm, partially internalizing externalities associated with education. With intragroup labor markets helping these odds further, paying for basic education and training apparently becomes cost-effective for business groups in India (Khanna & Palepu 1997), Korea (Chang 2003), and Turkey, where the two leading business groups, Koç and Sabanci, each built a university. Investment by business groups in other public goods—transportation and communications infrastructure, ports facilities, and the like—merits further study.

Their role in privately providing public goods might also explain why most large business groups in most countries are more or less pyramidal (La Porta et al. 1999, Khanna & Yafeh 2007). Law is an important public good but many LDCs' legal systems work poorly. Pyramidal business groups' controlling shareholders resolve disputes between group corporations (Greif & Kandel 1995, Kali 1999). The credible enforcement of such judgments requires a central authority in incontestable control. Consistent with groups' controlling shareholder occupying this position, La Porta et al. (1999) find arm's-length contracting costs correlating positively with business group importance. A controlling shareholder's reputational capital might also reduce contracting costs with outsiders (Maurer & Sharma 2001), as in Victorian British overseas groups (Jones 2000) and India (Khanna & Palepu 2005). This too requires the controlling shareholder's credible control of the firms over which he leverages his reputational capital. Business groups' controlling shareholders, by privately providing the public good of dispute resolution, may well reduce product, capital, and labor market transactions costs. Thus, the pyramidal form, which grants a controlling shareholder uncontestable control over all member firms in the business group, may serve an economic purpose that mere networks of equal firms could not achieve.

The above evidence is consistent with pyramidal business groups causing private-sector Big Push development in some former LDCs. But large pyramidal business groups clearly do not achieve this everywhere they predominate (Morck et al. 2005b). The hypothesis that business groups cause Big Push development is thus not only circumstantial, but also incomplete. If business groups orchestrate successful Big Push development only sometimes, variation in their governance and interactions with ambient institutions become important issues in development economics.

4. BUSINESS GROUP GOVERNANCE

Studies of business group governance generally examine the financial performance of individual group member firms (Bebchuk & Weisbach 2010, Boyd & Hoskisson 2010,

Fan et al. 2011). But Rosenstein-Rodan's (1943 p. 204) point that "financial markets and institutions . . . deal with too small units, and do not account for externalities" requires expanding the focus beyond individual firms. In an economy undergoing Big Push industrialization, the quality of governance—that is, the efficiency of decision-making regarding resource allocation—must be assessed at the group level.

Nonetheless, many issues in business group governance are familiar. Where business groups advance Big Push industrialization, these issues fade against the benefits of rapid growth. But elsewhere, business groups can greatly magnify familiar governance problems. This section refocuses insights from the corporate governance literature onto business group governance.

4.1. Shareholder Value

In freestanding firms, other people's money agency problems arise because a separation of ownership from control leaves self-interested managers in charge of other outside shareholders' money (Jensen & Meckling 1976). The controlling family of a pyramidal business group typically has a large equity stake only in the apex firm, and severely attenuated financial interests in lower tier firms (Bebchuk et al. 2000, Morck et al. 2000a). Thus, in **Figure 1**, a decision that cuts firm D1's total shareholder value by $1,000,000 cuts that of C1 by slightly more than $500,000, which cuts that of B1 by slightly more than $250,000, which cuts that of A1 by slightly more than $125,000, which cuts the controlling family's wealth by just over $62,500. Thus, the controlling

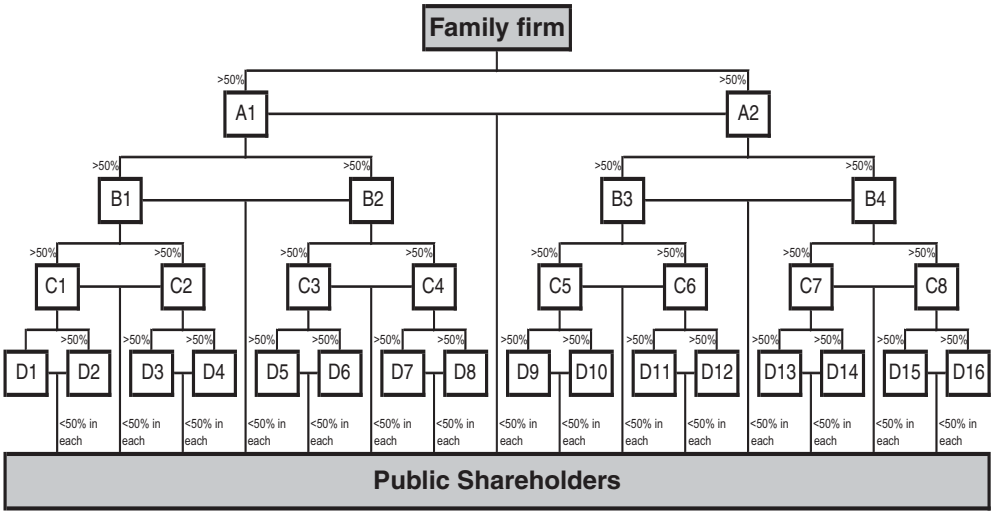

Figure 1

An archetypical pyramidal business group. An ultimate controlling shareholder, in practice usually either a business family or tycoon, controls a single apex corporation, denoted as family firm. This holds controlling equity blocks in each member of a first tier of listed corporations, in this example A1 and A2, with public shareholders holding their remaining shares. Each of these holds controlling equity blocks in more corporations in a second tier, in this case B1 through B4, and these control member corporations in a third tier, and so on. In each tier, public investors hold shares not included in the control blocks. The largest such structures can contain more than a dozen tiers and magnify control over one corporation into control over huge business groups containing assets worth vastly more. The largest such groups can comprise substantial portions of a national economy.

family's real financial interest (cash flow rights) in firm D1 is only 6.25%. Referring to pyramidal groups, Berle & Means (1932, p. 71) conclude: "control can be effectively divorced from legal ownership and factual power can be exercised over great aggregates of wealth with almost no interest therein." Pyramidal business groups' lower tier firms are thus exposed to other people's money agency problems as assuredly as are widely held firms whose managers own little stock (Bebchuk et al. 2000). For example, the controlling family in **Figure 1** would rationally spend $1,000,000 of D1's money on a private jet the family valued anywhere above $62,501, as would a professional manager owning 6.25% of an otherwise diffusely owned firm (Jensen & Meckling 1976). Inserting more tiers halves the family's actual financial interest once for each tier, and actual pyramidal groups can contain upward of a dozen tiers (Morck et al. 2000a).

Rational public shareholders presumably anticipate this, and *ceteris paribus* pay less for shares in lower tier firms. This need not constitute an expropriation of public shareholders' wealth unless the insiders somehow deceived public shareholders about the magnitudes of likely diversions. Nonetheless, depressed valuations can compromise social welfare by decreasing entrepreneurs' payoffs from going public, thereby lowering the returns to entrepreneurship.

Large shareholders can mitigate other people's money agency problems because they bear more of the cost of any poor investment (Shleifer & Vishny 1986), but this logic obviously does not apply to the member firms of a pyramidal group, each of which seemingly has a majority shareholder: the firm above it in the pyramid. Actually, all the member firms have only one controlling shareholder, the family, and its actual financial stake in lower tier firms can be small. Nonetheless, it controls a majority of votes in every member firm's board elections, and thus can directly appoint the entire board of every member firm, and thereby indirectly appoint their CEOs and other top officers. Firms whose top decision-makers have uncontestable control are vulnerable to entrenchment problems: a second class of agency problems (Morck et al. 1988, Stulz 1988). All the member firms in a pyramidal business group are thus susceptible to entrenchment problems. For example, if a senile or talentless family patriarch appointed inept cronies as CEOs throughout the pyramid, the other shareholders could do nothing about it.

In addition, pyramiding creates an agency problem largely unknown in economies of freestanding firms: tunneling (Johnson et al. 2000), wherein profits percolate upward to the apex firm. For example, firm D1 in **Figure 1** might transfer $1,000,000 to A1 by purchasing its goods or services at artificially high prices, or borrowing from it at artificially high interest rates. [Multinationals use similar transactions to move taxable income to low-tax countries (Caves 1982).] This transfer augments the family's wealth by $500,000 (A1 is worth a million dollars more), minus the $62,500 from the calculation in the first paragraph of this section (D1 is worth a million dollars less), or $437,500. Much empirical evidence detects tunneling (Claessens et al. 2000, 2002; Bae et al. 2002; Bertrand et al. 2002; Joh 2003; Baek et al. 2004, 2006; Cheung et al. 2006; Masulis et al. 2010; and others), especially where public shareholders' legal rights against controlling shareholders are weak (La Porta et al. 2006). [As with conglomerates, reverse causation is also possible: Expected underperformers might be started in lower tiers (Almeida et al. 2011).]

In developed economies with business groups, corporate governance laws aim to check such practices (La Porta et al. 2006). But if pyramidal business groups are to orchestrate Big Push growth in LDCs, they must be able to sacrifice value in one firm when

necessary. Holdup, monopoly pricing, and other such strategies might maximize the shareholder valuation of the firms undertaking them, but derail a Big Push. Not maximizing the shareholder valuations of such firms would constitute good governance amid a Big Push. Pyramids with entrenched controlling shareholders can subordinate one firm's shareholder value for the good of the group, tunnel capital from profitable firms to start or expand firms needed to complete missing pieces of the economic jigsaw, and so on.

This disconnection of firm-level shareholder value maximization from efficient resource allocation raises a host of unanswered questions. Might good governance then be recast as maximizing the value of the whole business group? The controlling shareholder in **Figure 1** gains if all the firms in the group act to enhance their collective value, and this might internalize externalities that would block a Big Push in an economy of freestanding firms. Good governance might then imply a Pareto improvement criterion: Decisions that harm one group firm might be justified by benefits to other group firms. Operationalizing this is problematic though, for unlisted firms dot most business groups, and shareholders and courts would have to value these. Estimating the values of whole business groups, let alone their fluctuations in response to various business decisions, is almost wholly virgin territory for researchers.

Maximizing the value of a group's apex firm could allocate resources efficiently. Yoshisuke Aikawa (1934), the founder of prewar Japan's Nissan pyramidal group (zaibatsu), describes pyramiding as an elegant solution to the coordination problems associated with rapid industrialization. Nissan was unusual in that its apex firm was widely held, not controlled by the Aikawa family, and Aikawa argues that this promoted efficient resource allocation throughout the pyramid, as any decision that harmed one subsidiary would have to benefit others to a greater extent to maximize the shareholder value of the apex firm. This follows if the apex firm's cash flow interests in each group firm replicate the weights a selfless central planner would assign. Whether actual business groups are so structured or not is unknown, as are the effects of varying member firm weights or positions on group performance or groups' contributions to economic development.[6]

4.2. Business Group Finance

The placement of a group's bank is of special interest because banks channel capital to other group firms. Some prewar Japanese pyramidal groups emulated the Mitsui pyramid, putting their banks at or near their apexes. Others emulated the Suzuki pyramid and minimized their controlling shareholders' cash flow rights in their banks. When a 1923 earthquake caused a financial meltdown, Suzuki's bank failed, in part because funds were tunneled out of it, leaving all other Suzuki firms insolvent. This and subsequent panics destroyed every pyramidal group structured like Suzuki, but all those structured like Mitsui survived (Morck & Nakamura 2005). How this generalizes is unknown, though Chang (2003) and Charumilind et al. (2006) document elevated fragility of related lending during financial crises.

[6]Work relevant to these issues is only beginning, but shows great promise (Maman 1999; Acemoglu et al. 2003, 2007; Almeida & Wolfenzon 2006a,b; Khanna & Yafeh 2007; Masulis et al. 2010; Almeida et al. 2011). The strategy literature debates related issues, but stresses board interlocks, social networks, etc. (Granovetter 1994, Khanna & Yafeh 2007).

Jensen (1986) argues that higher leverage constrains governance problems, and pyramidal business group member firms are more leveraged than independents in Korea (Choi & Cowing 1999, Shin & Park 1999, Lee & Lee 2002), Canada (Daniels et al. 1995), and Italy (Biancoa & Nicodano 2006). However, Khanna & Yafeh (2007) caution that debts to group financial institutions (or cash cows) are unlikely to exert the same discipline as arm's-length debt. Neither Canada nor Korea lets business groups contain banks, though both allow other financial institutions, so higher group leverage might indeed merely reflect extensive related lending. Moreover, in business groups, debt lets group firms expand without diluting control blocks (Dahlquist et al. 2003), potentially fostering pyramids of rickety related-party loans. Because the largest few pyramidal groups constitute substantial fractions of many LDCs' economies, such groups' failures would constitute systemic risk.

As mentioned above, business groups' circumvention of weak capital markets entails transferring capital between group firms, which reduces their member firms' costs of capital relative to what freestanding firms in the same lines of business would pay, and perhaps justifies higher overall leverage (Hoshi et al. 1990, Khanna & Yafeh 2007, Gopalan et al. 2007, Masulis et al. 2010). Ascertaining whether business group firms' high leverage reflects well-functioning internal capital markets or profligates related lending requires further research. LDCs' largest business groups successfully weather major financial crises (Fogel et al. 2008), consistent with efficient risk pooling. But systemic risk raises expectations of bailouts, which also allow higher leverage and promote survival. Family-controlled banking systems correlate with inefficient capital allocation (Morck et al. 2010), but that this turns on related lending is unclear, and Ferris et al. (2003) argue that large Korean business groups are inefficiently risk averse.

Corporate finance linkages between dividend policy and good governance may also not carry over to business groups (Morck & Yeung 2005). A corporation's optimal dividend policy entails dispersing earnings unneeded for value-enhancing investment opportunities or efficient financial slack (Myers & Majluf 1984). Excessive retained earnings invested in value-destroying projects are thought a common corporate governance problem (Jensen 1986), so high dividends are associated with good corporate governance (Jensen 1986, Denis 1990, DeAngelo & DeAngelo 2000). But in LDCs experiencing Big Push industrialization, optimal dividend policy entails firms paying out earnings above the costs of their business group's value-enhancing investment opportunities plus an efficient cash cushion.

These considerations suggest that group firms' dividends ought to be low during a Big Push, and rise after it ends. Consistent with this, Faccio et al. (2001) report business group member firms' dividends lower than independents' in Asia, but higher in Europe. They explain European group firms' higher dividends as necessary because shareholders perceive greater scope for misallocating retained earnings in groups. More generally, La Porta et al. (2000) link higher dividends with stronger shareholder rights, and argue that such rights empower shareholders to demand high dividends. Dividends might thus rise as a Big Push concludes and governments strengthen shareholder rights in response to middle class investors' increased political clout.

4.3. Labor as a Big Push Stakeholder

Roe (2003), examining developed economies, finds more powerful labor movements where corporate ownership is more concentrated. Roe argues that large shareholders protect

small shareholders from powerful workers, but this need not follow if the large shareholders are control blocks in pyramidal groups. An alternative interpretation explains this correlation as an artifact of a relatively recent Big Push. As argued above, a Big Push led by business groups leaves most firms with controlling shareholders. If economically innocuous, this condition might persist—perhaps for decades.

As noted above, a middle class of consumers and savers is an externality that a Big Push industrialization must internalize (Murphy et al. 1989b, Chen 1995). Henry Ford famously quipped that he paid his workers enough to buy Fords (Raff & Summers 1987). But Ford workers are unlikely to spend raises only on Fords. Creating a large car-buying middle class requires wage increases by all, or at least most, employers.

Very large pyramidal business groups, especially those comprising significant portions of national economies, might manage this because their workers actually might spend appreciable fractions of any raises on goods made by their employer's business group. Consistent with this, Khanna & Yafeh (2007) report higher wages at group firms, and Musacchio (2004) links the rise of business groups to labor power in Brazil. But empowering a labor movement is a more thorough solution because it credibly commits all employers to sharing the cost of creating and sustaining a large middle class of consumers and savers. Thus, as the Big Push fills in more missing pieces of the economy, making freestanding firms viable, business groups' controlling shareholders might lobby for more powerful labor laws to force independents to shoulder their part of the burden. Again, institutions empowering labor might persist long after this purpose is forgotten.

4.4. Systemic Risk-Return Trade-off

If business groups are to orchestrate a Big Push, they must be large enough to internalize the various externalities Rosenstein-Rodan (1943) documents retarding development. This is observed: Many LDCs' largest business groups constitute macroeconomically significant fractions of national economies. India's two largest pyramidal groups, those of the Tata and Birla families, included approximately half of the country's listed firms' assets throughout most of its modern history (Khanna & Palepu 2005, Sarkar 2010). Mere handfuls of large family-controlled business groups constitute the greater parts of the big business sectors of most Latin American and Asian countries (Morck et al. 2005b, Fogel 2006, Khanna & Yafeh 2007). This has seldom-considered risk implications.

Finance theory distinguishes systematic from firm-specific risk. Systematic risk—due to unexpected shifts in government policy, sentiment, and the like—affects all or most firms simultaneously. Firm-specific risk—due, for example, to unexpected decisions by a firm's top managers—affects only one firm, or at most a firm and its immediate customers and suppliers. Systematic risk elevates costs of capital because it cannot be diversified away, whereas firm-specific risk does not because it cancels out if investors hold the stocks of many different firms.

In many LDCs, investors cannot diversify across industries without including the stocks of numerous corporations controlled by each major business family. If the economic purpose of large business groups is Big Push coordination, all the firms in a business group are apt to make the same mistake at the same time—turning risk that would be firm-specific in an economy of freestanding firms into systematic risk. Thus, business groups

may render systematic a greater proportion of the risk investors must bear. This could elevate costs of capital, slow growth, and—if large business groups become too big to fail—create systemic risk.

Stocks trading in LDCs do expose investors to more systematic risk and less firm-specific risk than do stocks in developed economies (Morck et al. 2000b). This stylized fact is related to less transparency (Durnev et al. 2003, Jin & Myers 2006, Chen et al. 2007), less creative destruction (Chun et al. 2008), less complete arbitrage (Bris et al. 2007), securities law lacunae (Daouk et al. 2006), and other institutional infirmities.

More concentrated ownership correlates with greater firm-specific risk in the stocks of a developed economy (Brockman & Yan 2009). But Khanna & Thomas (2009) find the stocks of Chilean business group member firms rising and falling more synchronously than those of independents. Research on very large business groups and systematic, or systemic, risk across LDCs and over time as economies develop is needed.

4.5. Appropriate Governance

A private-sector-led Big Push may require large business groups, but large business groups do not lead a successful Big Push. Indeed, they usually do not. Virtually every major Latin American and Asian economy has experienced brief eras of rapid growth, but most fizzled, and only a handful of Asian economies managed genuine economic takeoffs (Rostow 1960). Yet business groups predominate throughout these regions (La Porta et al. 1999, Claessens et al. 2000). More spectacularly, Argentina fell from developed to developing status by some reckonings, with business groups commanding the heights of its economy all the while (Fracchia et al. 2010).

Clearly, some countries' large business groups are either unable or unwilling to organize Big Push development. One possible reason for this is governance problems in business groups. Perhaps those entrusted with the governance of large business groups lack the incentives or talent needed to pull off a successful Big Push.

Many Anglo-American corporate governance reforms turn on improving incentives. For example, America's 2002 Sarbanes Oxley Act mandates more salient CEO responsibility for internal control failures. This approach is criticized as costly (Zhang 2010), and voluntarily enhanced internal controls, which arise from time to time as management fads, appear inefficacious (Micklethwait & Wooldridge 1996). Moreover, amid a Big Push, the internal control mechanisms needed would presumably be at the business group level, rendering U.S. firm-level experience an inappropriate template for LDCs.

Another means of aligning top corporate decision-makers' incentives with good corporate governance is strengthened shareholder rights, meaning greater officer and director liability to shareholder lawsuits (La Porta et al. 1997). This too may not carry over to LDCs, where controlling families make major decisions and firms' directors and officers, including CEOs, merely obey orders. Suing such a CEO is like suing a U.S. conglomerate's division manager, or a wealthy family's butler. Indeed, business families in LDCs sometimes support stronger shareholder rights to better discipline the help. Recent work stressing public shareholder's legal rights against ultimate controlling shareholders, rather than shareholders' legal rights against managers, is more apropos (La Porta et al. 2006). But the conditions under which such lawsuits ought to succeed in LDCs are unclear

because, as discussed above, firm-level shareholder value maximization is not obviously socially optimal amid a Big Push.

Incentive-based CEO pay is also thought important (Bebchuk & Fried 2004). But again, controlling shareholders, not CEOs, make key decisions in LDC business groups. Controlling shareholders' firm-level pay-performance sensitivity is approximately equal to their cash flow rights (La Porta et al. 1999), which correlate positively with firm-level shareholder valuation (Morck et al. 2005b, Masulis et al. 2010). The extent to which the controlling shareholder's overall wealth maximization might induce decisions that advance Big Push growth is unknown at present.

Incentives can be augmented by measures that attract talent and improve the quality of decisions. Independent directors, chairs, and board committees are thought to do both. They are thought better at challenging misguided CEOs (Weisbach 1988, Adams et al. 2010) and countering groupthink (Morck 2008). Unfortunately, Anglo-American rules, which define independent as lacking business ties to the corporation, go amiss in LDCs. For example, the CEO of one group firm may have no financial ties to another group firm, but is hardly an independent voice on its board. Were independence redefined as lacking ties to the business group or its controlling shareholder, impartiality might be more credible. But in many LDCs, big business is a handful of large pyramidal groups and the pool of qualified genuinely independent directors is shallow—especially if managers with ties to rival business groups are excluded, as they obviously must be. Finally, even fully qualified and genuinely independent directors may shrink from challenging a family commanding unassailable voting control.

Studies of Anglo-American governance highlight the importance of takeovers in removing untalented or venal managers (Jensen & Ruback 1983, Franks et al. 2005). But if pyramidal business groups coordinate Big Push growth, their member firms must be immune to takeovers. Otherwise, raiders could identify firms with holdup power over other firms, and rival raiders would bid up their share prices to the point where the winner would have to aggressively hold up other firms. The mere possibility of this would suffice to prevent Big Push coordination by a group of firms if each were vulnerable to a takeover.

Strong institutional investors remove underperforming firms' CEOs in America and Britain (Weisbach 1988, Franks et al. 2005, Cheffins 2009), but this may be undesirable in LDCs. Amid a Big Push, some firms must perform poorly to provide, for example, complementary goods or essential inputs to other firms.

If an entire business group underperforms, its controlling shareholder, not its CEOs, arguably needs replacement. Firing a business dynasty that controls a huge swath of a country's economy is likely beyond the power of most institutional investors. Moreover, the major institutional investors in many countries are themselves pyramid group member firms. For example, most major Brazilian (Perkins et al. 2008) and Israeli (Hamdani & Yafeh 2010) institutional investors belong to large pyramidal business groups, and are thus controlled by those they would otherwise discipline.

Very large independent institutional investors, if holding highly diversified portfolios spanning many firms in several business groups might be able to challenge a powerful business dynasty, and might even comprehend externalities and, for example, accept tunneling and firm-level value forfeitures appropriate to advancing a Big Push. But assessing such decisions is difficult, and again asks much of institutional investors.

4.6. Dynastic Governance

Indeed, assessing such decisions may ask too much of many business groups' controlling shareholders. In most countries, most large business groups are controlled by wealthy families (La Porta et al. 1999). Echoing Big Push logic, Marcus & Hall (1992, p. 131) explain that "the residual strength of dynastic families . . . is that they integrate functions and activities that specialized institutional orders differentiate and fragment."

However, a predominance of family-controlled business in developing economies need not unconditionally commend family governance. A Big Push requires a central authority in charge of coordination (Rosenstein-Rodan 1943, Murphy et al. 1989b), and Hobbes (1651) rightly notes that any authority is better than none. In preindustrial economies, kinship is often a primary determinant of trust (Banfield 1958, Putnam 1973, La Porta et al. 1997), perhaps making family lines of authority the only feasible starting point in nascent business groups.

Indeed, family firms are not without governance problems (Bertrand & Schoar 2006). Schumpeter (1911), Knight (1921, chapter 9), Hayek (1941, p. 334), and others stress the importance of entrusting business assets to the most talented hands. But highly talented founders can spawn untalented heirs (Villalonga & Amit 2006) because business acumen, like other aspects of intelligence, is at most unreliably inherited (Devlin 1997). Moreover, restricting top positions to family discourages effort in both kin and nonkin (Holtz-Eakin et al. 1993). And aging family patriarchs, once cognoscente of their limitations, can grow bold with senility (Morck et al. 1988). Families can taint business decisions with emotionally charged loyalties and resentments, and placating disgruntled relatives or upholding customary status patterns can overwhelm efficient resource allocation (Khanna & Yafeh 2007). Family feuds can tear businesses asunder (Bertrand et al. 2008), and shifting cultural norms can undermine family governance (Mehrotra et al. 2010). Firm-level studies in developed economies show inherited family control causing poor firm performance (Smith & Amoako-Adu 2005, Perez-Gonzalez 2006, Bennedsen et al. 2007), but that this is also true of inherited corporate or group governance in LDCs, though plausible, remains unverified.

All this suggests a trade-off: Entrusting a business family with incontestable governance over all the firms in a large business group may be the only practicable way to coordinate a private-sector Big Push in a preindustrial economy, but risks all the above governance problems. Conditions that shift this trade-off are therefore potentially important in explaining the different development trajectories of different countries. This is consistent with the empirical importance of country-level institutional variables relative to firm-level measures of corporate governance (Durnev & Kim 2005, Doidge et al. 2007).

4.7. Market Forces and the Big Push

Chandler (1977) argues that developed economies must manage a transition from family business to professional management to escape these governance deficits, and documents this transition in America, Britain, Germany, and Japan. This is consistent with family business groups aiding a Big Push, but becoming an encumbrance thereafter. Yet family-controlled pyramidal business groups still account for large swaths of the big business sectors of many high-income western European economies (Barca & Becht 2001), and

their importance waxes and wanes in Canada (Morck et al. 2000a). Family governance clearly can persist long after successful industrialization.

Nonetheless, cross-sectional country-level regressions controlling for education, capital accumulation, and initial income per capita link greater family control over big business with worse economic and social development (Morck & Yeung 2004, Fogel 2006). This finding invites alternative interpretations: The dominance of large family business groups might indicate either a Big Push in progress, and thus an earlier stage of economic development, or a low-level equilibrium (Nurkse 1953, Leibenstein 1957) in which family business groups have an ongoing advantage (Khanna & Yafeh 2007).

Either is possible. The institutional infirmities family business groups circumvent in low-income economies (Leff 1978; Chang & Choi 1988; Caves 1989; Khanna & Palepu 1997, 2005) are more or less the same infirmities a Big Push must transcend (Rosenstein-Rodan 1943, Murphy et al. 1989b). The Big Push interpretation may be rarer, for family business groups' importance correlates empirically with slower growth (Fogel 2006). But it is nonetheless of great potential importance because many rich economies grew rich with large family-controlled business groups in charge (Morck 2005a, Morck & Nakamura 2007). If both interpretations are at work, and this seems likely, understanding why each holds where it does becomes important. At present, we have little idea, and can only nominate factors that might plausibly affect the trade-off.

One obvious consideration is the strength of market forces, known to correlate with better corporate governance across developed (Roe 2001, Koke & Renneboog 2005) and transition (Estrin 2002) economies, and across U.S. industries (Giroud & Mueller 2010, 2011). Causation can even be assessed, for Rennie (2006) shows U.S. utilities deregulation causing corporate governance improvements. That this also applies to business group governance is unknown, but plausible.

However, the purpose of a Big Push is to suspend firm-level market forces that would interfere with the coordination needed to establish an industrial economy. Product market competition could, nonetheless, be brisk if rival pyramidal groups compete. [See de Fontenay & Gans (2004) on competition between rival networks reducing network inefficiencies.] Intense competition is documented between large pyramidal business groups' member firms in each sector of prewar Japan and postwar Korea (Weinstein & Yafeh 1995). In contrast, U.S. pyramidal business groups in the 1920s, which often contained numerous public utilities, were condemned for concealing cartels (Morck 2005b). Competition between business groups in Latin America is also generally thought weak (Edwards 2010). Turnover among business group, presumably correlated with the intensity of intergroup completion, is lower in slower growing countries (Fogel et al. 2008). Turnover among large business groups in India and Taiwan is low, but higher for lesser business groups (Khanna & Palepu 2005). Because the usual list of corporate governance prescriptions for developed economies may serve LDCs poorly, enhancing competition might be considered. Further research on intergroup competition and development is needed.

Openness to global market forces might substitute for domestic competitive pressure in LDCs undergoing a Big Push. Imports or multinational subsidiaries could fill in missing sectors or undermine monopolies (Murphy et al. 1989a, Rodrik 1995, Venables 1996); exports could help domestic firms gain economies of scale (Trindade 2005); and foreign investors could lower capital costs (Rajan & Zingales 1998, Chua et al. 2007). Foreign investors are apparently largely misrepresented as "hot money" (Choe et al. 1999), but in

any case shun family-controlled group firms' stocks (Khanna & Palepu 2000a, Leuz et al. 2009). Multinationals undertake joint ventures with family group member firms (Khanna & Yafeh 2007, n. 36), but can misapprehend their partners' objectives. For example, Perkins et al. (2008) describe multinationals' surprise when a Brazilian family deliberately damages a joint venture to help another of its group firms.

On the other side of the scales, rent seeking—lobbying officials for regulatory forbearance, tax loopholes, subsidies, state-enforced monopolies, trade barriers, etc.—retards development, but might augment shareholder value if insiders share the gains (Krueger 1974). Thus, the elevated shareholder valuations Khanna & Yafeh (2007) report for LDC business group member firms need not indicate a positive contribution to economy growth if they reflect rent-seeking prowess. Perhaps business groups lead Big Push growth where their rent-seeking returns are low, but stabilize low-level equilibriums where rent seeking is more profitable. If so, their return to rent seeking may affect how business groups are governed. Greater regulation and state intervention magnify the returns to influencing officials, so the residues of past state-led Big Push failures might lock in equilibriums of high rent seeking and low productivity (Easterly 2001).

Where rent seeking is firms' highest return investment, all manners of distortions stymie growth (Shleifer & Vishny 1998). Intensified competition can foster bidding wars for political influence, and an active market for corporate control can pool corporations under the most efficient rent seeker (Morck & Yeung 2004). Rent seeking may be especially destructive in LDCs because it diverts talent from productivity-enhancing activities (Murphy et al. 1991) and grows more profitable with experience (Murphy et al. 1993).

Morck & Yeung (2004) argue that large family-controlled pyramidal business groups are likely to be highly effective political rent seekers for several reasons: First, the leading politicians of many developing economies belong to their leading business families (Faccio 2006), streamlining business-government cooperation. Talent may not be inherited, but old-moneyed business families are likely to be very well connected. Second, old-moneyed business families can play repeated games with politicians. Third, a few family patriarchs can organize more readily than could the CEOs of numerous independent firms (Olson 1965). Fourth, corrupt officials rationally view wealthy business families as more credible favor-trading partners rather than as merely potentially wealthy entrepreneurs. Fifth, corruption is hidden if one business group firm receives a political favor and another pays for it. Sixth, powerful business families can better wreak revenge on defecting politicians. Lastly, business group member corporations have multiple points of contact with governments, facilitating cooperation (Bernheim & Whinston 1990).

Historically, subsidies and regulations favored business groups in Brazil, Chile, Costa Rica, the Czech Republic, India, Indonesia, Israel, Italy, Korea, Malaysia, Mexico, Nicaragua, Pakistan, Russia, South Africa, Taiwan, Thailand, and Turkey (Booth et al. 2001, Khanna & Yafeh 2007). Major Malaysian business groups actually formed around political parties (Gomez & Jomo 1999), so its business and political elites overlap substantially (Johnson & Mitton 2003, Gomez 2006). Bunkanwanicha & Wiwattankantang (2009) describe Thai tycoons entering politics specifically to skew government policies to advantage their groups. Groups controlled by Indonesian President Suharto's relatives and associates benefited hugely from official favoritism (Fisman 2001, Mabarak & Purbasari 2005). India's License Raj favored its largest business groups (Tripathi 2004). Business families control most LDCs' private-sector media (Djankov et al. 2003, Karademir & Danisman 2007), perhaps to lower their costs of influencing politicians.

Globalization, liberalization, and perhaps laws keeping media firms out of family business groups might thus focus LDC business groups on Big Push coordination by lowering their returns to rent seeking. Historically successful Big Push episodes seem correlated with greater openness and more limited government. Japan's successful prewar Big Push occurred under a succession of hands-off governments (Morck & Nakamura 2007), and Korea's successful postwar Big Push occurred under General Park Chung-hee, whose soldier's disdain for commerce limited government intervention to export goals in sectors important to the military (Park 1971). Pyramidal business groups led both successes, and both followed state-led Big Push fiascos (Amsden 1989, Clifford 1994, Kim 1997, Chang 2003). Pinochet's economic policies were also overtly neoliberal as Chile's economy overtook its neighbors' (Khanna & Palepu 2000b). Late industrializing countries in the Western world, such as Canada (Brown & Cook 1983) and Sweden (Lindbeck 1974), also first became rich under classical liberal governments.

Consistent with a latent trade-off, business families seem ambivalent about liberalizations. Korea's business groups lobbied for free trade and deregulation (Kim 1997), as did India's Tata family (Khanna & Palepu 2005). But Korean chaebol resolutely resisted political reform, shareholder rights, and competition laws (Chang 2003), and the Bombay Club of Indian business family patriarchs lobbied aggressively for barriers to entry (Tripathi 2004).

5. THE FUTURE IS NOT WHAT IT USED TO BE

This ambiguity may reflect a time inconsistency in business group governance important to economic development (Morck et al. 2005b). Entrusting an economy's business assets to the patriarchs of a few such groups may be the only proven path to a successful Big Push. But once the Big Push succeeds, the economy contains a complete roster of competitive industries, functioning product, capital and labor markets, an educated workforce, and a responsible government with a solid middle class of taxpayers (Berkowitz & Li 2000) who demand shareholder rights of the sort La Porta et al. (1997, 2006) describe. Large pyramidal business groups, and the wealthy tycoons and business families that control them, lose their economic purpose.

One strategy business groups' controlling shareholders might use to protect themselves from time inconsistency is time dilation. If the economy's process of development can be slowed, pyramidal business groups retain their economic advantage longer, and slowing development to a crawl partway into a Big Push might prolong these advantages for generations (Olson 1963, Morck et al. 2005b). Business groups might effectively lock in perpetual quasi-rents from their ability to circumvent weak institutions without ever leading a Big Push to fruition. Consistent with this, Rajan & Zingales (2003, 2004) observe marked atrophy in many countries' financial development after initial bursts of industrialization.

Some developed economies abolish business groups outright. America used tax and public utilities ownership regulations to banish pyramiding after its 1920s boom collapsed (Morck 2005b). Japan, under American military occupation, de facto confiscated the control blocks that held its prewar pyramidal groups together (Morck & Nakamura 2005). Britain's 1968 Mandatory Takeover Rule eroded its pyramids away because an active market for corporate control rapidly forced the delisting of ill-governed

corporations with large shareholders (Franks et al. 2005, Cheffins 2009). With groups gone, the unit of business decision becomes the corporation and the mainstream literature on corporate finance and corporate governance becomes relevant (Shleifer & Vishny 1997, Hermalin & Weisbach 2003, Hermalin 2005, Adams et al. 2010).

Other developed economies seemingly recast their family business dynasties as economic constitutional monarchs. In the 1990s, Sweden's Wallenberg dynasty still commanded approximately one-third of the economy's total market capitalization (Högfeldt 2005), but econometric studies show no evidence of significant intragroup income transfers (Agnblad et al. 2001). Similar findings describe other Western European countries where pyramidal groups persist (Faccio & Lang 2002). Canada, Hong Kong, Israel, Singapore, and other high-income Common Law countries likewise retain large pyramidal business groups (Claessens et al. 2000, Morck et al. 2000a, Kosenko & Yafeh 2010). These countries generally provide investors strong legal rights and proscribe tunneling (La Porta et al. 2006). Their economies seem to be economies of corporations, and their organization into groups—though still evident—serves no obvious economic purpose.

The asset-weighted fraction of Canada's top one hundred listed firms that belong to business groups falls steadily from the Gilded Age until the 1970s, then rises abruptly to Gilded Age levels, and then falls back again in recent years (Morck et al. 2005a). Pyramiding also rose and fell over the decades in Italy (Aganin & Volpin 2005). On average, the pecuniary benefits their controlling shareholders extract cost public shareholders little in most of these countries (Nenova 2003, Dyck & Zingales 2004), so the reasons for these changes are unclear. Perhaps their controlling shareholders gained varying intangible private benefits of control, such as status or power, or perhaps their returns from rent seeking changed with political fashions.

Even where great business groups' controlling shareholders are not obviously rapacious, the political influence attendant to their control over huge swaths of an economy raises concerns (Barca & Becht 2001). For example, Sweden's startling paucity of new big businesses is linked to the political influence of its existing business families (Högfeldt 2005). Pyramiding in Canada increases during episodes of interventionist government, and abates during more liberal eras (Morck et al. 2005a, Mueller & Philippon 2011), and so may reflect varying returns to political rent seeking. Cross-country evidence supports such a link (Mueller & Philippon 2011). Chang (2003) finds Korean business group firms collecting monopoly rents from vertical integration, though Kim (2010) suggests that government favors matter more. Khanna & Yafeh (2007) quote Indonesian and Thai business family patriarchs describing vertical integration profits as a prime advantage of their business groups. Evidence contrasting Korea and Taiwan suggests a larger vertically integrated monopoly in the former (Feenstra et al. 2002, Feenstra & Hamilton 2006), and concerns about monopolistic business groups arose in interwar Belgium (Van Hentenryk 2003), 1930s America (Morck 2005b), and postwar occupied Japan (Hadley 1970, Weinstein & Yafeh 1995).

Business groups' rent-seeking power may wane with globalization (Stulz 2005), competition (Giroud & Mueller 2010, 2011), public shareholder rights against insiders (La Porta et al. 2006), transparency (Bushman et al. 2004), fully articulated bodies of business group law (Dine 2000), intrusive tax auditing (Desai et al. 2007), labor laws (Roe 2003), social pressure (Agnblad et al. 2001), or legal systems that empower smaller players (La Porta et al. 2008). Where group controlling shareholders' power is severely constrained, corporate governance, rather than business group governance, might predominate, despite

pyramidal business groups persisting. Business group law might exist mainly to render business groups economically unimportant.

These issues are becoming politically salient in rapidly developing and newly developed economies of East Asia and other nouveaux riches economies such as Israel. All still feature huge pyramidal business groups with few signs of disappearing. Indeed, Chung & Mahmood (2006) find Taiwanese business groups continuing to diversify. Gomez (2006) finds Malaysian groups weakening after their political patrons retire, but Polsiri & Wiwattanakantang (2006) describe an enduring strength in Thai business groups. Hanani (2006) sees similar longevity in Indonesian business groups.

The atrophy of a country's financial system prevents the capitalization of large new firms, and this can lead to a freezing of caste. For example, the sons, grandsons, and great-grandsons of their founders control a third each of Argentina's major business groups (Fracchia et al. 2010). Barriers to entry and a freezing of caste not only raise consumer prices and entrust governance to heirs of uncertain talent in perpetuity, but quite likely also block creative destruction (Acemoglu et al. 2007, Fogel et al. 2008). Acemoglu et al. (2003, 2007) argue that corporate governance and the institutions that shape it must change as the technological frontier nears. Catch-up growth needs the wide diversification of business groups to overcome Big Push coordination problems, but growth that pushes the technological frontier outward needs upstart firms run by initially impecunious creative entrepreneurs (Banerjee & Duflo 2008) and financed by risk-tolerant public equity (Schumpeter 1911). Institutions that perpetuate business groups likely bias capital allocation against the entrants on which creative destruction depends (Almeida & Wolfenzon 2006b). Institutions that let entrepreneurs commit credibly to equity value-maximizing corporate governance thus become economically important as economies catch up, and are the core of Jensen & Meckling's (1976) linking good corporate governance with shareholder value.

How different institutions engage business groups in Big Push development, sustain Big Push development, and disengage business groups as a Big Push ends are thus unclear, but fundamental, questions in economic development. The tragic waste of human potential in economies locked into poverty is, however, clear. That the tools of corporate finance and corporate governance research seem capable of clarifying important aspects of this tragedy is fortunate.

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Errata

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