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In This Issue: China's Capital Markets and Corporate Governance

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Corporate Governance in China

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China's recent economic history is phenomenal. The Communist Party of China (CPC), by abandoning Marxist-Leninist dogma and adopting pragmatic economic policies, has lifted hundreds of millions of people out of abject poverty in a few short decades. No other government in human history has accomplished anything remotely comparable. Most Nobel Peace Prizes celebrate far slighter achievements.

Communist China's accomplishments should caution outside experts. Economics surely has more to learn from China than China has ever learned from economics. Much rhetoric from the right ("See what happens when capitalism is unleashed!") and the left ("Capitalism destroyed Chinese equality, Mao's greatest legacy!") is, in our opinion, far off target. China has not adopted capitalism, and Mao left no legacy of real equality.[1]

The CPC refers to its economic system as "Market Socialism with Chinese Characteristics." Journalists reporting on China largely ignore this official phraseology, perhaps smiling at the Party leadership's unwillingness to formally acknowledge having abandoned communism and embraced capitalism. Observing the formation of stock markets, giant banks and corporations, business schools, and financial regulators, they can be forgiven for jumping to conclusions. In fact, the Party leadership is being quite deliberate in its choice of words.

China is a market economy. The prices of most goods and services are set by supply and demand. China is also socialist in a sense Lenin would recognize. Its government is a people's democratic dictatorship of the proletariat—a people's democracy in that the government rules in the name of the whole people, and a dictatorship of the proletariat in that the CPC, ruling in the name of the proletariat, suppresses political dissent beyond certain boundaries using the police power of the state. Finally, China remains fundamentally Chinese. The CPC has come to resemble the meritocratic Imperial Civil Service that governed China in its previous eras of greatness. Membership in the Party is a badge of high status. Students with high grade point averages, successful professionals, and other persons of accomplishment are invited to join, and promotion within the Party is, to an extent at least, merit-based. "Market Socialism with Chinese Characteristics" seems a much better description of all this than "capitalism."

In fact, China is going where no country has gone before. Its economic system is something largely new and outside the experience of Western academic economists. Foreign experts have nonetheless offered prescriptions that China's leaders, in some cases, have followed, or perhaps swallowed. Thus, China has financial regulators and regulations. It has stock markets and banks and business corporations. Its corporations have boards of directors, with careful attention to the fraction that are designated as "independent." Its government negotiates free trade agreements and adjusts the money supply and fiscal policy to stimulate the macroeconomy. In all of these ways, China looks and acts like a capitalist economy.

But all is not as it seems. The Party continues to enunciate Five-Year Plans, which delineate all-embracing Party objectives. Financial regulators and judges are virtually all Party members as well as government employees, and their careers are overseen by various Party organs, notably the Organization Department of the CPC, which ensure that cadres throughout China act in harmony with Party policies. Cadres' job security, prospects for promotion, and ability to advance the careers of their underlings all depend on their own overt demonstrations of harmonious cooperation with Party objectives.[2] In general, listings on the domestic stock markets are limited and rationed out by bureaucrats intent upon implementing Party objectives.[3] Chinese banks and other financial institutions are essentially all state-owned enterprises of one form or another, and their lending policies must be consistent with Party objectives[4]—though recent CPC Third Plenum reforms call for established nonfinancial firms being granted banking licences. In addition to having CEOs and boards of directors, all but the least significant Chinese corporations also have Party Secretaries and Party Committees.[5]

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1. See Dikötter (2010) on the social and economic inequality created by Maoist reforms and Freeman (2014) on the current Chinese leaderships efforts to correct these problems. In addressing the stark differences between China's current economic system and capitalism, this article draws on the 2012 policy position paper "The Best Laid Plans: Institutional Reforms Necessary for the Realization of the 12th Five-year Plan's Objectives" by Randall Morck and Bernard Yeung. Sections of the article also draw on Fan, Morck and Yeung (2012). Full citations of all references in the text or footnotes are provided at the end of the article.
2. See Deng et al. (2014).
3. See Aharony et al. (2000) and Tian (2011).
4. See Pistor (2012).
5. See McGregor (2010).

This is not to say that China's institutional reforms are Potemkin Villages—artificial constructions designed to impress credulous foreigners. China's reforms are real. CEOs and boards have real authority and make real decisions. Corporations' Party Secretaries and Party Committees have veto power over critical decisions, but exercise it only very selectively to help the CEO and board avoid deviating from Party objectives. Moreover, the Organization Department of the Communist Party genuinely values competence, and cadres' promotions may be genuinely merit-based—though loyalty, obedience, and circumspection doubtless also matter. [6] The CEO of a growing and profitable firm might be promoted to Mayor or Party Secretary of a large city, and the Mayor of a dynamic small city might be promoted to Party Secretary of an important corporation.

How did such a system become so successful? Institutions widely accepted as key to rapid economic development—sophisticated contracts, property rights, corporation, and securities law, a financial system that encourages innovation, investor rights, a powerful middle class, and even the rule of law—are absent or, at best, ephemeral in China.[7] We propose here that the Party's creation of something approaching a genuine meritocracy explains much of the success, and that the Party's stated objectives and effective control of members' careers may, in retrospect, have helped solve the coordination problems that the mid-20th century economist Paul Rosenstein-Rodan rightly saw as barriers to rapid economic development.[8]

However, as we argue at the end of this paper, institutions conducive to a Big Push, especially those associated with corporate governance, are likely to prove inappropriate or even dysfunctional after "catch up" growth ends. The only proven paths from middle- to high-income status require the institutions developed by existing high-income countries. Historically, many countries that managed short spurts of rapid development but then failed to adopt such institutions have ended up as "always developing, never developed" oligarchic or "crony capitalist" economies. A hopefully untrue national joke proclaims that "Brazil is the economy of the future, and always will be."[9] Today's large high-income economies' institutions take different forms, but all came to relegate resource allocation to decentralized planning by competing firms that are financed by middle-class investors' savings, responsive to market forces, and subject to the rule of law. When such a transition is necessary for China to avoid this Middle Income Trap, major reconfigurations of both corporate governance and country governance seem necessary.

Latin America stands out especially as having difficulties with this transition. Argentina, Mexico, and Venezuela each sustained periods of rapid industrialization and were hailed as emerging First World countries, only to stagnate for decades as elites entrenched their economic and political control.[10] Many countries in the Middle East and other parts of Asia also fit this bill. A common theme across countries is that the most formidable barrier to a successful transformation is the self-interest of powerful people whose wealth and power depend upon the continued importance of institutions appropriate to catch-up growth, but inappropriate for continuing the ascent to sustained high-income status. China is now approaching the point where this sort of institutional transformation seems necessary, and where these opposing forces muster strength.

Institutional Development

China's economic success is much publicized, but the abysmal depths from which it rose are less fully appreciated. Plumbing those depths provides important insights into China's current institutions.

The Fall of China

European traders found 16th century China a united empire, and Chinese officials found the Europeans rather unimpressive, and soon confined them to a small stretch of riverbank in Guangzhou, where their trading missions (called "hongs") conducted limited and carefully supervised transactions with select local merchants. As the Emperor Qian Long patiently explained in a letter to Britain's King George III,

> *Our Celestial Empire possesses all things in prolific abundance and lacks no product within its own borders. There was therefore no need to import the manufactures of outside barbarians in exchange for our own produce. But as the tea, silk and porcelain which the Celestial Empire produces, are absolute necessities to European nations and to yourselves, we have permitted, as a signal mark of favour, that foreign hongs should be established at Guanzhou, so that your wants might be supplied and your country thus participate in our beneficence.*

The Emperor had clearly not heard of the Law of Comparative Advantage, which affirms that any country gains from

6. See Landry (2008) for empirical evidence based on CPC cadres' promotion records.

7. Precisely which institutions matter most in which sequence, is debated. Hayek (1944) argues for the essential importance of the rule of law—that is, for no person or organization to be above the law. Fukuyama (2010) elaborates on this, arguing that the rule of law is fundamentally foreign to China. Schumpeter (1911) stresses the importance of innovation and of a risk-tolerant financial system to sustained prosperity, and La Porta et al. (1998) argue for the importance of shareholder-centered corporate governance. Acemoglu and Robinson (2012) posit a large and powerful middle class—they stress yeoman farmers—as a precondition for broad-based development. This uncertainty leaves rapidly developing economies little scope for picking and choosing partial reforms.

8. On how cadres are selected and promoted see Deng et al. (2014), Landry (2008), McGreggor (2010). For more details on these coordination problems and how central Big Push coordination might solve them, see Rosenstein-Rodan (1943). For a formal model of this role for the state in a Big Push, see Murphy, Shleifer and Vishny (1989).

9. See "Will Brazil remain the country of the future?" *Economist*, Oct 8th 2012.

10. On entrenched oligarchies in Latin America and elsewhere, see e.g. Bortz and Haber (2002), Calomiris and Haber (2014), Edwards (2010, Galeano and Allende (1997), Haber, North and Weingast (2007), Haber (1989, 2002), Morck, Stangeland and Yeung (2000), Morck, Wolfenzohn and Yeung (2005), and Rajan and Zingales (2003, 2004).

trade. British merchants sought more trade and soon made the Chinese "offers they could not refuse": they peddled opium. As opium addiction spread, the Emperor Dao Guang launched a War on Drugs. His Drugs Czar, Commissioner Lin Ze-xu, confiscated and burned the Hong's opium stores in 1839. Remarkably, the British opium dealers convinced Parliament to respond with gunboats, which quickly overcame China's technologically antiquated defences.[11] Further Chinese attempts to ban opium provoked the Second Opium War in 1857, and a more devastating military defeat. Both Opium Wars left China owing huge indemnities that drained government coffers of silver, and the second opened the country to Christianity as well as opium. The Tai Ping rebellion, led by Hong Xiuquan, the self-proclaimed Little Brother of Jesus, was roughly contemporaneous with the Second Opium War, and its costly suppression further drained the treasury and devastated the land.

By the turn of the 20th century, China was a failed state, its imperial government still largely contemptuous of foreign technology and its people afloat on opium. Counterfactuals in history are scarcely objective, but we wonder what would have happened had the Celestial Empire instead traded tea, silk, and porcelain for European technology, as Meiji Japan did after 1868? Might foreign knowledge have followed foreign trade, as in Japan? Might the Fall of China have been less crippling, or even entirely avoided?

In fairness, factions within the Qing court pressed for the importation of foreign technology and ideas, but without real success. The imperial court was rife with corruption, factional politics, and incompetent officials in inherited senior positions. The moribund dynasty collapsed in 1912 with the foundation of the Republic of China. Power evaded Sun Yat-sen's Nationalist Party as the warlord Yuan Shikai sought to found a new imperial dynasty. The ensuing conflicts left China a patchwork of warring fiefdoms. By the 1920s, China was "merely a geographical expression," and appears on maps of the era as a multi-colour mosaic of states. The Nationalist Party, now led by Chiang Kai-Shek, and the Communist Party, led by Mao Zedong, soon emerged as the two major contenders in a full-fledged civil war.

By the 1930s, China was so economically and politically enfeebled that Japan's military zealots perceived it ripe for conquest. Having seized Manchuria in 1932, Japan invaded China-proper in 1937. After Japan's World War II defeat, the civil war resumed. The Communist victory in 1949 left Mao free to implement, in succession, forced agricultural collectivization, the Great Leap Forward, and the Cultural Revolution.

When Mao finally died in 1976, China was poorer than sub-Saharan Africa. Agriculture had collapsed, and tens of millions had died in famines. Creative thinking was politically hazardous, and vociferous loyalty trumped competence throughout the Party and government. Mao's death marked the end of the Cultural Revolution (1966-1976), but left the economy in ruins and the people mired in poverty, illness, and illiteracy. In 1978, China's per capita GDP ranked among the lowest in the world. Hepatitis was endemic and virtually all tap water was unsafe.[12] In 1982, 34.5% of all adults and 49% of female adults were illiterate.[13]

From this unpromising starting point, China's Communist reformers have lifted living standards to Latin American levels. In 2013, the World Bank listed China's per capita GDP as roughly matching that of Peru. Peruvians are not the richest people in the world, but are incomparably better off than most Chinese in 1978, and most sub-Saharan Africans now. China, like Peru, is now a middle-income country and, like much of Latin America, confronts middle income country problems—inequality, oligarchs, and a historically justifiable mistrust of the West.

Socialist Legal Origin

The system Mao imposed, which was based on Stalin's Soviet Union, continues to influence Chinese governance. To make these connections clearer, we offer a brief overview of socialist governance.[14]

According to the famous Austrian economist, Friedrich von Hayek, the central problem in economics is not, as commonly expressed in textbooks, the allocation of scarce resources to competing ends, but "rather a problem of how to secure the best use of resources known to any of the members of society, for ends whose relative importance only those individuals know. Or, to put it briefly, it is a problem of the utilization of knowledge not given to anyone in its totality."[15] Hayek argued that markets efficiently gather this information and shape incentives so that all concerned unknowingly coordinate their actions to minimize waste.[16] Modern finance theory is more qualified, with its recognition that agency problems and other information asymmetry problems cannot be eradicated. Much work in corporate governance turns on how to manage these problems and limit their social and financial costs.[17]

Lenin devised an alternative system of governance. The fundamental problems in the socialist governance are also problems of information and incentives.[18] Central planners need reliable information about the productive capacities

11. In fairness, the Europeans were subjected to torture and summary execution by often corrupt officials, letting the British justify military actions as necessary to establish treaty ports subject to European rule of law—with opium legalized in these, if not in Europe. See esp. ch. 3 in Fay (1975).

12. For details on the prevalence of hepatitis, see Liu and Fan 2007.

13. World Development Indicators database, World Bank.

14. We follow Chinese practice in using the term *communism* to describe a moneyless utopia and *socialism* to describe a country striving to achieve communism. We sharply distinguish *socialism* from *social democracy*.

15. Hayek (1945, p. 78).

16. For more detail, see Hayek (1937, 1944)

17. These problems, formalized by Jensen and Meckling (1976), are relevant in any large organization (La Porta et al. 1997).

18. On agency problems in socialist economies, see Shleifer and Vishny (1992, 1998).

and needs of people and enterprises throughout a large and diverse country. Given that information, planners can formulate input and production plans, whose implementation must then be entrusted to potentially self-interested agents. Much of the surveillance apparatus in the Soviet Union was initially justified as providing central planners with the information they needed both to allocate resources and to ensure that factory managers, workers, railroad employees, and others acted as faithful agents. Many did not, of course, and self-interested behavior such as selling inputs and outputs on the black market became widespread. To control such agency problems, the Soviet leadership devoted ever increasing resources to surveillance and came to regard market transactions as treasonous sabotage worthy of the death penalty. China adopted this system in stages in the 1950s, and all but eliminated private enterprise in these years.

The essence of socialist governance can thus be summarized succinctly as follows.[19] Every part of the economy must be saturated with Party cadres who feed information upwards through successively higher-level tiers of cadres and, ultimately, to the central planners. The central planners issue production quotas to the managers of factories, railroads, army bases, and other operational units. In the Cold War era Soviet system, each unit had a *cash account* at a state bank, into which the central planners deposited funds the unit could draw upon to pay its workers and to acquire inputs. Productive operations, such as collective farms or factories, each had a second *non-cash account* with the state bank, in which their sales revenues accumulated. The unit could not transfer funds from one account to the other. Only the central planners could do this, and only in accordance with the central plan. The government and Party funded themselves with the difference between what accumulated in non-cash accounts and what was transferred to cash accounts. There were no taxes.

This deep integration of public finances with central planning was, and perhaps still is, a key obstacle to more complete reform. Complete privatization threatens government revenues, for accounting standards are problematic,[20] the Chinese citizenry are unaccustomed to paying taxes and Chinese governments at all levels are unaccustomed to collecting them efficiently. However, the government is working towards developing a comprehensive income taxation system,[21] and recent reforms are laying the groundwork for a property tax. Nevertheless tax collection from businesses remains challenging.

Under socialist governance, workers and managers were paid minimal salaries; for example, in 1988 university professors in China averaged RMB211 per month (US$43 at the official exchange rate).[22] However, workers' production units provided (very) basic housing, food, health care, and children's schooling. Wages were only for buying luxuries, such as bicycles or extra shoes. Salaries, living conditions, and food rations were generally unrelated to effort. Rather, continual exhortations about loyalty and duty to the Party and proletariat were used to motivate effort.

This system has obvious design flaws. First, disconnecting individual effort from individual rewards creates free-rider problems. Workers, paid the same for working or not working, understandably find the latter more pleasant; and agricultural and industrial productivity accordingly collapsed by the late 1950s. Second, managers, controlling only funds designated to pay for inputs, understandably exaggerated their input needs. The resulting *soft budget constraint* problem—that is, the ever-increasing costs of production that managers reported so as to expand the resources under their control—quickly became a major governance problem in China, as in other socialist economies.[23]

Managers' objectives were specified as quantitative production targets, so rational managers sacrificed quality for quantity. Consumers coped by avoiding goods made near the end of a quota period, when quality control was worst, as factories raced to meet their quotas. Factory managers, granted control rights without corresponding cash flow rights, understandably maximized their private benefits. Managers could extract favors, if not outright bribes, for providing goods—especially goods of verifiably high quality—that were in short supply. Quite predictably, virtually everything was always in short supply, even though simple planning errors would presumably have led to shortages and surpluses in roughly equal proportion. A shadow free-market economy thus arose to allocate the goods and services people actually wanted, needed, and could afford in one way or another.[24] This legacy of gray-market transactions, in which favor-trading (guanxi) was widely socially accepted as necessary for simply getting by, persists in modern Chinese business ethics.[25]

The predictability of input costs and output levels attained primary importance under this system of governance. Central planners wanted their plans to be attainable, and managers wanted their cost and output mandates to include a predictable (and, if possible, ever larger) wedge between revenues and real costs to fund their private benefits. In the Soviet system, innovation was avoided because it made costs and

19. On Soviet governance, see Smith (1984); on the Soviet money and banking system, see Nakamura (2012). On the era of central panning in China, see Chow (2011).
20. See Piotrosky and Wong (2012) for details regarding seeming deficiencies in Chinese accounting practices.
21. See Gordon and Wei (2012) on barriers to the development of tax-financed government in post-1978 China.
22. See Shoresman (1998) on the history of academic salaries in China.
23. On the soft budget constraint in socialist economies, see Kornai (1986).
24. On the ubiquity of shortages and paucity of surpluses under socialism, see Shleifer and Vishny (1992).
25. See Lü (2000).

output levels unpredictable and risked increasing supply—both major potential problems for planners and factory or collective farm managers alike.[26] The situation in China was, if anything, worse: prior to 1978, innovators risked being branded as counterrevolutionary, made social outcasts, and sometimes even banished to remote collective farms or re-education camps.[27] The authors' visits to Chinese factories in the 1980s were thus something of a journey into industrial history. Coal-fired railroad locomotives, as in American Western films, were still in production, and textile mills still used machinery that was in place on Liberation Day in 1949. This premium on stability surely made socialist governance simpler for both planners and managers, but left China with antiquated and inefficient technologies that locked in low productivity.

While China's managers and political leaders clearly understand the costs of laggard technologies, the political leadership, especially, retain an overarching acceptance of stability as a social goal—seemingly without realizing the inherent contradictions in this. Technological progress necessitates accepting a substantial instability about which firms survive and prosper, which professions pay well or poorly, and which sectors of the economy expand or shrink, but this microeconomic instability stabilizes overall prosperity. Unfortunately, technological stagnation, like pervasive shortages, abysmal quality control, low productivity and high costs, became the new normal. Altering mind sets accustomed to this world became a major challenge to reformers.

Given these governance problems, the Chinese economy stagnated. In the Great Leap Forward of the late 1950s, and again in the Cultural Revolution of the late 1960s and early 1970s, Mao sought to reinvigorate China by equating self-interest with criminality and even treason, and by encouraging people to seek social status by denouncing economic traitors.[28] Both episodes merely brought deeper economic collapse and a general acceptance that being an economic criminal was not really a bad thing. Indeed, defying, circumventing, or otherwise cheating a system that many privately regarded as evil and oppressive came to be seen as morally laudable.[29] We suspect that this entirely understandable ethical inversion—good people defy bad rules—remains an important element of modern China.

Maoist Catharsis and the Resurrection of China

Following Mao's death in 1976, reformers led by Deng Xiaoping took charge. Deng's faction of the Communist Party of China was a technocratic (Rightist) element that had long vied with Mao's idealistic (Leftist) faction. Mao, a one-time poet enamoured of philosophy, embraced a popular early 20th century ideology: the social value of great men who, by transcending conventional ethical standards, lift society through great leaps of faith. Mao's faith was a deep belief in the ultimate goal of Communism, a moneyless economic utopia in which altruistic citizens would voluntarily work hard for the common good and the state would fade away completely.

This paradise was, of course, attainable only via the Socialist path charted by Stalin. Precisely what that path entailed came to be disputed. The Rightist faction sought to reengineer economic institutions; Mao's Leftist faction sought to reengineer human nature. The rightists were social engineers with technocratic mind sets, the leftists were romantics with literary ideals.

Realizing that reality was not conforming to his plans, Mao's solution was to intensify social pressure. In the 1950s, his Great Leap Forward sought to industrialize China overnight by mobilizing all peasants to deforest vast landscapes to make charcoal to slag mounds of household metal goods in village iron foundries. China boosted its iron production, albeit of such abysmal quality as to be economically worthless, even as tens of millions perished in famines amid unattended fields and man-made dust storms in a China no less industrially backward. In the wake of this disaster, Rightists gained influence, and the CPC grew increasingly technocratic.

Appalled by this, Mao organized the Cultural Revolution in the late 1960s by bestowing ethical and social status on any who arose to purge the Party of its technocratic elitists. Mobs destroyed ancient temples, the university system, and a generation of Chinese intellectuals. This chaos and hard-line Leftists' relentless attempts to grab power as Mao's health declined sank China into deeper poverty.[30] Deng Xiaoping's Rightist "reformers" took charge of the CPC in 1978 after a thorough purge of prominent Leftists. Critically, Deng's Rightists were neither democrats nor free market liberals. Rather, they sought a pragmatic and scientifically engineered Socialism, free of romanticized idealism. After the errors and excesses of romantic communism, China was ripe for a pragmatic economic approach.

Deng's first major reform reintroduced market incentives in agriculture: peasants could sell excess produce in farmer's markets. The result, an abrupt reappearance of plentiful fruit and vegetables, encouraged further reforms. By the 1990s, only a few key prices remained under state control. China had become a market economy in the sense that, for the most part, prices were set by supply and demand.

With socialism collapsing across Eastern Europe in 1989, and then in the Soviet Union in 1992, pragmatism neces-

26. On the dearth of innovation under Soviet socialism, see Berliner (1978).
27. ON the Cultural Revolution, see e.g. Feng (2007).
28. See Centola et al. (2005) on the manipulation of ethical norms by dictatorships and Willer et al. (2009) for discussion of the Cultural Revolution in China in this context.
29. On the ethical legacy of communism, see e.g. Holmes (1993), Rose et al. (1998).
30. Key episodes included attempts to seize power by Lin Biao and the Gang of Four and a history of Rightists versus Leftists tensions within the CPC, see Baum (1996).

sitated further reforms. But the suppression of the Tien An Men Square protests vividly demonstrated that multi-party democracy was not on this list. However, many of the post-socialist governance reforms implemented across Eastern Europe and the former Soviet Union were on the list. Inheriting essentially the same system of socialist central planning, the former Warsaw Pact countries, and then the Baltic states all ultimately adopted broadly similar sequential reforms. China, with reservations, followed along.

A major task reformers faced was the mass privatization of the means of production. The first step towards this goal was *corporatization*. Land, plant, and equipment, previously all the property of the state, had to be allocated to newly designated state-owned enterprises. This was an epic accounting challenge, for where one state-owned enterprise ended and another began had to be established. This done, the various post-socialist economies adopted different actual privatization strategies. The Czech Republic and Russia allocated vouchers to their citizens, and then conducted voucher-denominated initial public offerings. Poland established a coterie of institutional investors, assigned these shares in all privatized large firms, and tasked them with paying pensions and insurance claims. Hungary sought foreign buyers for its privatized firms.

In hindsight, the Polish approach attracted the least criticism.[31] Voucher privatizations invited corruption: handfuls of Party insiders built business empires by buying vouchers from suspicious populations that preferred cash in hand to shares of uncertain worth. Foreign buyers provoked troublesome nationalist reactions.

China's approach was to go slow. State-owned enterprises were corporatized, but not thereafter immediately privatized. Rather, China's leaders sought to do as much reform as possible while pausing at this intermediate step. State-owned enterprises have learned to contend with balance sheets and earnings statements for many years, as successive reforms gradually increased their economic autonomy. State-owned enterprises came to have chief executive officers, boards of directors, and levels of middle managers. They now pay for inputs (including labor), sell outputs at market prices, and keep the profits or disburse them as dividends. Many state-owned enterprises have listed their shares, or the shares of a controlled subsidiary, on one of China's two stock markets, in Hong Kong, or even overseas in the United States and elsewhere. A securities regulator oversees the domestic markets and vets initial public offerings. These reforms have created a new cast of more or less private sector firms, which have brought a new dynamism.

These reforms combine to give China the appearance of a free market economy, with institutions recognizably similar to those found in the Western world in general, and in the area of governance, especially, in the United States.[32] Appearances can be deceiving. Corporate governance, like all laws and regulations in China, must be interpreted through a key provision in the Constitution of the People's Republic of China that enshrines a "Leading Role" for the Communist Party.[33]

As an example of how this works, consider CEO pay.[34] CEO pay in China superficially resembles that in the United States. The CEOs of SOEs earn bonuses tied to accounting earnings and, for some listed state-owned enterprises, stock returns. But only parts of these bonuses are disbursed immediately. Substantial fractions of CEOs' bonuses accumulate in funds and are disbursed every few years after the CEO's performance is reviewed by the Organization Department of the Communist Party. Thus, SOE CEO pay is linked to both financial performance and Party loyalty. The latter is arguably the more important, for the Organization Department also determines which CEOs keep their jobs, gain promotions to more prestigious positions in the corporate world, government, and Party, or end up demoted or even more severely punished. This system of corporate governance is deemed essential, for without it the Party could not exercise its Leading Role.

As a second example, consider statistics that show the expanding role of private sector firms in China, often highlighted in journalistic accounts of China's economic rise. A degree of sleight of hand is at work here, for Chinese official statistics count as "private sector" any firm in which the state does not hold a direct control block of shares. Thus, any controlled subsidiary of an SOE is deemed to be a private sector firm, as are any firms owned directly by government or Party officials, or by state-controlled agencies. Lenovo is thus a private sector firm, even though it has a dominant owner, Legend Holding Company (with a 32.44% equity block in 2013), whose major shareholders are the Chinese Academy of Science, the Lenovo Employees Fund, and China Oceanwide Holdings Group (each with at least a 20% stake in 2013, the last controlled by Lu Zhiqiang (a prominent member of CPPCC Standing Committee).[35] A skeptical interpretation of these statistics is that they represent a façade of free markets; a more generous interpretation is that they reflect "baby steps" along a Polish path to full privatization, perhaps with the Chinese Academy of Science serving as a nascent institutional investor. Yet here, too, Chinese reluctance to

31. See Blanchard et al. (1993) for a comparative analysis of the deconstruction of socialism in Eastern Europe and Åslund (2001) regarding the former member republics of the Soviet Union. See also Åslund (2007).

32. See Allen et al (2012) and Allen and Shin (2012).

33. See Guo (2012) on the Leading Role of the CPC in the Chinese constitution. An English translation of the constitution is at english.people.com.cn/constitution.

34. For more detail on CPC and state organs' oversight of CEO pay in China, see Landry (2008) and McGreggor (2010). For pay-performance sensitivity in China, see Firth et al. (2006).

35. This information is from the websites, of Lenovo, Legend Holding Company, and Oceanwide Group.

pursue full privatization preserves the Party's constitutionally mandated Leading Role.

As yet a third example, consider the freedom of action of CEOs and boards of directors at both SOEs and private-sector firms. In principle, the CEO is duty-bound to run the corporation efficiently and boards are empowered to ensure that CEOs do their duty. In practice, every SOE and all but the smallest private-sector firms also each have a Communist Party Secretary and a Communist Party Committee. At present, any enterprise employing four Party members or more can have imposed upon it a Party Secretary and Party Committee if the Party deems this useful.[36] The Party Secretary and Party Committee do not intervene in normal business practices, much as the Business Judgement Rule in the United States denies the country's judges the power to meddle in day-to-day corporate decision-making. However, the Party Secretary and Party Committee do serve the Party by keeping higher-level cadres up to date about the corporation's activities, and by intervening as necessary to help the CEO and board avoid erroneously making decisions that are inconsistent with Party objectives. This is, of course, necessary to render Chinese corporate governance institutions consistent with the Party's constitutionally enshrined Leading Role.

New firms must live within this system. Thus, the 2014 IPO of the Chinese internet firm Alibaba was heralded as the largest ever floated in the U.S. Fewer accounts stressed that the public float was only 15% of the firm, and that a constituency-based shareholder voting system guaranteed Lakeside Partners control of the board. Lakeside's partners includes Alibaba's founder Jack Ma as well as its chief risk officer and Communist Party Secretary, Shao Xiaofeng, a former senior police officer.[37]

The country's judicial system raises yet other issues. China's judges are government employees, paid by local or central governments but nominated by the matching level of "People's Congress," further screened by the matching Organization Departments of the Communist Party and finally approved by the Standing Committee at the matching level of the Communist Party. Critically, judges are responsible to the Party first and foremost. China adopted a civil code legal system; so judges' decisions are based on selected application of legal codes. Often, there is guidance in these application decisions by committees inside the People's Congress and the Party's Political and Legal Committee has the power to intervene in deliberations, and even to overturn verdicts issued by judges. Most judges are Party members and making decisions that contradict Party policies and guidance leads to Party disciplinary actions. China has accumulated large bodies of generally American-inspired corporations, securities, bankruptcy, property and tort laws and regulations. On its face, the Chinese legal system appears to be rapidly conforming to international best practice. However, the Constitution, in granting the Party its Leading Role, and these judiciary processes, in placing the Legal Committee of the Communist Party above the Law, thus leave all laws and regulations subservient to Party objectives. If Party policy conflicts with a law or regulation, wise judges give primacy to Party policy. To do otherwise would be unconstitutional.[38]

Corporate Governance and The Big Push

That this system lifted hundreds of millions out of poverty and into the ranks of the global middle class is not necessarily an insult to free market economics. First, very rapid growth from the abysmal nadir of 1978 is, in part, surely the mere reversal of the worst of Mao's disastrous economic policies. Restoring basic market incentives, importing foreign technology, reallocating labor to more productive activities, and holding down the yuan to spur exports to a stable and prosperous West were all simple measures along these lines. But China's success increasingly appears to be far more than this, and so requires a deeper explanation.

The Chinese system's hidden virtues emerge when interpreted through the work of the mid-20th century development economist Paul Rosenstein-Rodan.[39] The influence of Rosenstein-Rodan, who designed the World Bank and trained countless students and disciples to serve as prominent government officials in developing economies throughout the world, is hard to overstate.

Coordination Failure as a Fundamental Obstacle to Development

Rosenstein-Rodan saw coordination failure as the primary obstacle to the industrialization of a low-income, predominantly agricultural economy. Thus, a lone steel mill on the African savannah is apt to be a commercial failure because its production cannot be coordinated with the activities of networks of suppliers and customers. Just as an organism cannot survive without an ecosystem, a firm cannot survive without an economy.[40]

This perspective recognizes a high-income free market economy as a complex dynamic system in which each actor implicitly depends on the predictable actions of countless others. For example, a steel mill depends on the existence of coal mines, iron ore mines, and transportation companies as well as a wide range of buyers of steel—machine tools manufacturers, construction companies, shipbuilders, and the like. Moreover, the steel mill depends on there being enough of each of these

36. For more details about the importance of Communist Party Committees and Secretaries in corporate governance and in general, see McGregor (2010).

37. See "Alibaba Partners Include Onetime Top Cop," Wall Street Journal, June 17, 2014.

38. Judicial independence is generally assessed using criteria for the tenure and promotion of judges, and for their independence in interpreting and applying the law. All these conditions are violated in China. For more detail, see Fukuyama (2011) and Guo (2012)

39. See Paul Rosenstein-Rodan (1943) and elaborations (Myrdal 1957; Murphy et al. 1989; Rodrik 1996; Rodriguez-Clare 1996).

40. Murphy, Shleifer and Vishny (1989a), Rodrik (1996) and others update Rosenstein-Rodan's reasoning with formal models that affirm his basic intuition.

to prevent its being "held up"—that is, squeezed by monopolists or monopsonists occupying any point along the chain. Each firm in the chain, in turn, depends on countless other firms along its supply chains, and all the other firms along all of their supply chains, and so on.[41] And all of these firms depend on enough other firms paying middle income salaries to vast numbers of employees, who double as consumers in final goods markets.[42] While openness lets foreign market participants fill some network gaps in the development of a small economy,[43] China is no longer a small economy.

Anticipating the first mover problem in game theory, Rosenstein-Rodan recognized that no firm would step forth alone to launch the industrialization of an otherwise predominantly pre-industrial economy, but that a multitude of firms doing so simultaneously could all render each other viable. To transcend the first mover problem, he therefore called for a "Big Push" wherein the state would coordinate the simultaneous industrialization of multiple firms in all sectors of the economy. This, he argued, could transition the entire economy en masse from its low-level equilibrium, in which individual self-interest prevents economic development, to a high-level equilibrium, in which every firm is sustained by the existence of all the others.

Of course, public investments such as roads, bridges, schools, and hospitals are also unlikely to find adequate private-sector backing, and the government of a low-income agricultural economy may lack the tax base to fund socially optimal provision of these and other public goods on which every firm also depends. However, if the economy can transition to the high-level equilibrium, a huge network of firms, along with their employees, become available to tax, enabling the government to fund the schools, roads, and all the other public goods on which all firms also rely. The government's problem of economic development is thus one of coordinating the transition from a very stable low-level equilibrium to this self-sustaining high-level equilibrium.[44]

Rosenstein-Rodan highlights three particularly important characteristics of the low-level equilibrium that keep it highly stable. First, the financial system, accustomed to providing capital to specific firms for specific purposes, is not up to capitalizing simultaneously an economy-wide network of firms. Second, the financial system is not up to the task of coordinating the establishment and growth of firms in such a network so that, for example, steel mills, cement plants, and construction firms able to use steel and concrete all come online in synch. Third, the financial system cannot fund externalities. Every firm is, by its simple existence, a positive externality for every other firm because they collectively raise economy wide demand and thus sales. Also, every firm depends on sufficient competition to generate competitive prices in countless markets throughout the economy, which in turn reduces production costs collectively. Finally, every firm also depends on a range of public goods that only the state can provide. Yet private investors and bankers are understandably reluctant to commit capital to ventures in proportion to the benefits they provide distant third parties.

Because of these problems, Rosenstein-Rodan concludes that

> *Existing institutions of international investment (floating of shares and loans) are inappropriate to the task of industrialisation of a whole area. They deal with too small units, and do not take advantage of external economies. Capital mostly goes to individual enterprises. There has never been a scheme of planned industrialisation comprising a simultaneous planning of several complementary industries.*[45]

He therefore calls for Big Push development: the government funded and coordinated development of entire economies as the only viable way of internalizing all such externality problems.

As we explain below, one interpretation of China's economic rise is that the CPC is successfully funding and coordinating a Big Push of precisely the sort Rosenstein-Rodan prescribed. To be sure, this interpretation is marred by widespread criticism of Big Push development plans as rife with government failure, breeding grounds for corruption and, historically, tragic economic stagnation.[46]

Keeping up with the Neighbors

Although Rosenstein-Rodan is quite plausibly right about coordination failure as a barrier to development, he is almost surely wrong about the limitations of financial systems, and therefore about the need for government to play a leading role. Many rapidly developing economies feature huge business groups with many member firms in many different industries, their governance all coordinated by a single ultimate controlling shareholder—usually a prominent business family. Such business groups (called *zaibatsu*) in late Meiji Japan can be seen as having orchestrated a "private-sector Big Push"—or, more precisely, a race between competing Big Push efforts, each undertaken by a zaibatsu led by a different tycoon or business family.[47] And in recent work, we argue that similarly large industrially diversified business groups arose in other developing economies, and in the histories of many developed economies, to effect similar episodes of rapid industrialization.[48]

41. On these issues, see Matsuyama (1992, 1995), Gans (1997), DeFontenay (2004), DeFontenay and Gans (2004ab) and Hermalin et al. (2010).
42. See Myrdal (1957), Murphy et al (1989b) and others.
43. See Venables (1996), Skott and Ros (1997) and Trindade (2005).
44. Murphy, Shleifer and Vishny (1989) formalize this using the mathematics of game theory.
45. Rosenstein-Rodan (1943, p. 204).
46. Easterly (2006)
47. Morck and Nakamura (2007)
48. Morck and Yeung (2013). Leff (1978) also draws attention to business groups potential role in rapid industrializations.

The Case of Japan: A Failed Public-sector Big Push Followed by a Private-sector Success. A brief history of Japan's Big Push can help illuminate the current state of China's economy.[49] In the mid-19th century, a series of uninvited visits by American steam powered gunboats with state-of-the-art weapons revealed how humiliatingly backward Japan was. The Tokugawa shogun, who understandably yielded to U.S. demands to open trade, was promptly overthrown by samurai warriors outraged at his cowardice. Their new regime, dubbed the Meiji Restoration to honour the figurehead Meiji Emperor, soon understood why the shogun capitulated to the barbarians. Chagrined, the Meiji leadership resolved to acquire foreign technologies so as to rid Japan of foreigners. Japanese students, sent abroad in large numbers, returned with knowledge of how far behind Japan truly was.

The Meiji leaders' first development strategy, implemented in the 1870s, was to establish several dozen state-owned enterprises, one in each modern industry, run by foreign-educated Japanese or hired foreign experts. The state-owned enterprises proved increasingly ravenous for subsidies, and Japan experienced near simultaneous financial, currency, and sovereign debt crises. Classical Liberal reformers took charge, organized the world's first mass privatization, and implemented laissez-faire economics. Japan's government remained overtly non-interventionist until the military takeover in the 1930s.

The former state-owned enterprises ended up owned by prominent merchant families, such as the Mitsui and Sumitomo, and a handful of upstart entrepreneurs. From the 1880s through the 1920s, the leading business families and upstarts used first earnings from their existing firms and then public share issues to capitalize new firms in new industries. By the turn of the 20th century, the largest business groups—Mitsubishi, Mitsui, Nissan, and Sumitomo—achieved "full set diversification"—that is, each zaibatsu had one, and rarely more than one, member firm in every significant industry in the economy. Japan developed rapidly in these decades, with little input from the government and little bank financing; and by the 1920s, it was pulling alongside parts of Europe in terms of industrial output and living standards.

Full set diversification quite plausibly reflects each group's controlling tycoon or business family coping with the interdependencies and externalities that Rosenstein-Rodan outlines by coordinating the organization and growth of numerous firms, each in a different sector. Moreover, Japan's ascent to high-income status occurred after the state withdrew its guiding hand. Japan's ultimately successful industrialization was initially partly state-subsidized, in that the government established a stable of modern state-owned enterprises and then sold them (at a loss) to private buyers. However, after contributing government money, the government planners exited rapidly in the 1880s.

Japan's post-World War II reconstruction and ascent to very high-income status did occur amid substantial government intervention and bank influence over corporate governance. However, a substantial revisionist literature now argues that the scope of state intervention in post-war Japan was vastly exaggerated by foreign experts looking for a case of a successful state-run industrial policy. Data subsequently made available show that the sectors that received the largest government subsidies developed the most slowly, and that government planners succeeded mainly in targeting loser firms.[50]

In sum, Japan's initial 1870s state-led Big Push was a failure. The country caught up with parts of Europe by the 1920s with its economy largely guided by its zaibatsu. Japan rebuilt itself after World War II, after the American military government dismantled the zaibatsu and left an economy of largely independently governed firms, which lifted it over the final step to sustained high-income status in the mid-20th century.

The Case of Korea: Another Private-sector Big Push Success. In the 1950s, South Korea was poorer than any country in sub-Saharan Africa, and far poorer than North Korea; by the late 1990s, its standard of living rivalled many countries in southern Europe. South Korea's era of very rapid development was from the 1970s through the 1990s. During this era, the economy was dominated by large full-set diversified business groups called *chaebol*.

The *chaebol* appear to have played a similar coordination role to that of the zaibatsu in late 19th- and early 20th-century Japan.[51] The Korean government intervened extensively in the economy in the 1950s and the country exhibited little real economic growth. In the 1960s and 1970s, state intervention became intensely focused on relatively narrow priorities: first export promotion to generate foreign currency for arms purchases in the 1960s; then subsidies to an even narrower set of heavy and chemicals industries viewed as militarily important in the 1970s. After a major financial crisis in 1979, the government adopted overtly free-market policies and state intervention largely ceased, except for the sorts of R&D tax credits and other implicit subsidies found in most high-income country tax codes.

Thus, decade by decade, Korean business groups were increasingly left to their own devices, though their too-big-to-fail status and political influence arguably cut their costs of capital and helped them ride out a series of financial crises in the 1970s, 1980s, and 1990s better than could smaller independent firms.

49. For more details, see Morck and Nakamura (2007)

50. See Beason and Weinstein (1996), Beason and Patterson (2004), and many others on the relatively limited role of government planners and keiretsu business groups in post-war Japan and the misleading group-think that came to dominate academic and popular articles on Japan in the 1980s. Keiretsu business groups are now regarded as takeover defenses (Morck and Nakamura 2005). Some revisionists, most notably Miwa and Ramseyer (2006), take the extreme position that government planners had no influence whatsoever during the postwar era and that keiretsu business groups never existed.

51. See Lim and Morck (2014).

Rosenstein-Rodan envisioned government planners scientifically plotting out and implementing the coordinated development plan he deemed necessary for a Big Push. But the cross-country coordination achieved by Korean business groups is recent enough that we can ask them why they did what they did. Koo Cha-Kyung, chair of the apex firm in Korea's LG *chaebol*, recounts the economic network gaps and market forces that forced the group's coordinated cross-industry expansion:

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.[52]

Note that there is no discussion of an overarching central plan formulated by central economic planners. Rather, each capitalization of a new affiliated firm in a new industry was necessitated by the needs of existing firms, and each such cross-industry expansion created new pressures that led to the capitalization of yet more new firms. The controlling shareholder, of course, needed the foresight to recognize these needs and the capital to act on each.

Like the major Japanese zaibatsu, the largest Korean *chaebol*—Samsung, LG, Hyundai, and Daiwoo—achieved full set diversification: each group had one member firm in every major industry. Also like the Japanese zaibatsu, all the firms in each *chaebol* group were controlled by a single business family by means of a pyramidal structure of listed firms controlling other listed firms.[53] In both cases, financing for new firms was predominantly from share issues; bank loans played little role in financing new group firms. The Japanese zaibatsu did contain banks as member firms, but the successful groups used risk-tolerant minority equity issues to public shareholders plus retained earnings from existing firms to fund start-ups.[54]

Although the Korean *chaebol* were legally proscribed from controlling banks, most controlled non-bank financial institutions. Both the *zaibatsu* and *chaebol* made extensive use of related-party transactions to channel subsidies from profitable member firms to member firms needing capital. Such transactions are generally regarded as a mechanism for accumulating wealth in the pockets of the controlling shareholder, but the rapid and broad economic development of both countries raises a more benign possibility. Perhaps tunneling between group firms approximated the cross-industry subsidies that Rosenstein-Rodan's Big Push planners would have used to start new firms in new industries and sustain them as other parts of the economic network came online.

Japanese and Korean financial history thus motivates our contention that Rosenstein-Rodan and his modern followers might be right about the problem, but wrong about its solution. [55] Lone steel mills on the African savannah are indeed financially unviable without the vast ecosystem of firms and markets that constitutes a modern economy. But state planners, operating without profit incentives, were not a viable solution either. Rather, private sector business groups, run by controlling shareholders both willing and able to approximate maximizing the profits of their entire collection of firms, appear to work. Indeed, a large business group containing many firms in diverse industries, all under the common control of a single tycoon, is precisely the private sector "scheme of planned industrialisation comprising a simultaneous planning of several complementary industries" whose possibility Rosenstein-Rodan explicitly denies.

Of course, how the business group is governed matters. Studies show business groups can be effective mechanisms for working around absent or dysfunctional institutions in low-income economies.[56] These abilities also make them good mechanisms for private-sector cross-industry coordination of the sort needed in a Big Push.[57] However, all such advantages for large business groups evaporate once a modern economy is fully in place, and being able to coordinate multiple firms in diverse industries ceases being socially useful.

We postulate that the middle-income trap mentioned earlier occurs when business groups lobby to limit institutional development so as to retain their competitive advantage over other forms of business organization. Once Big Push development nears completion, large business groups, run by highly connected senior tycoons or their heirs, can remain profitable by maximizing political rents extracted from the state, monopoly rents extracted from consumers, and even

52. On the role of the *chaebol* in South Korea's Big Push, see Morck and Lim (2014).

53. After 2000, some *chaebol* restructured themselves using "circular ownership" wherein Firm A controls firm B, which controls firm C, and so on, … which controls Firm A. This restructuring is thought to be a response to regulations limiting pyramiding and banning crossholdings. See Almeida et al. (2011).

54. The sole *zaibatsu* that did use its member bank to fund its expansion, the Suzuki zaibatsu, collapsed in a debt crisis in the 1920s. See Lynn and Rao (1995).

55. Notable among then, Murphy, Shleifer, and Visny 1989; Sachs 2005.

56. Obviously, this raises a whole new field of research—business group governance. At present, we know little about what constitutes good governances. The importance of business groups throughout the developing world, and their seeming central role in the successful development of Japan and Korea, make filling this gap in the literature all the more important. For speculation about what questions such research might most usefully investigate, see Morck (2012).

57. See Khanna and Yafeh (2007) for a survey of the literature on business groups.

monopsony rents from workers and savers.[58]

If China has developed via a state-coordinated government-financed Big Push, it is perhaps the first country ever to do so. Other state-led Big Push attempts, such as India's post-independent Nehruvian-socialist plan for rapid development and Nassar's Arab-socialist plans for Egyptian industrialization, have in general fared even worse than Japan's aborted state-run development strategy of the 1870s. Given the abundant examples of failed state-led Big Push efforts throughout the Third World, William Easterly, a leading development economist, laments "the stubborn survival of the legend of the big Push"—a legend that, "despite evidence of its failure, has continued to foster the planning approach to development."[59]

Why Chinese Corporate Governance Is Interesting

How, then, has China seemingly accomplished a state-led Big Push more or less precisely as Rosenstein-Rodan prescribed? Why did this work in China after it failed elsewhere? Is China exceptional? If so, how?

We believe these are important research questions in Chinese corporate governance, and urge that more research be directed towards answering them.[60] Corporate governance is ultimately about who manages the economy's productive resources, what their incentives are, and how well all this works out for the economy at large. Although we don't claim to be in a position to answer these questions, we can highlight a few aspects of Chinese corporate governance that may well be both unique to China and important contributors to its economic success.

State-coordinated Governance

Perhaps China's state-led Big Push succeeded because its government officials are uniquely well selected and motivated. We consider two aspects of this potential uniqueness.

Corporate leaders' incentives. First, does the Chinese system give its corporate leaders passably efficient incentives? One of the first things that strikes foreign observers when interacting with Chinese business executives is that corporate governance is not primarily a corporate matter. Chinese business corporations are not, for the most part, free-standing autonomous units insofar as governance is concerned. While they now have CEOs and boards with independent directors, these are not the totality of the governance mechanisms under which corporations function.

Arguably, the Organization Department of the CPC, as directed by top CPC cadres, has at least as much influence over CEOs and other top managers of centrally controlled SOEs as their boards have, and may well matter far more. A similar arrangement exists between local level Organization Departments and locally controlled SOEs. The Organization Departments of the CPC tracks the careers of all Party cadres, and maintaining one's Party membership in good standing is essential to the career of a prospective CEO.[61]

Cadres' scope for promotions is broad, and not limited to the corporation or even the business sector.[62] The Organization Department of the CPC might elevate a successful SOE CEO to an important Party or government position, or even to an important position in a private firm. Less obviously successful cadres might be moved sideways or demoted. For example, in a series of 2011 Organization Department decisions, the Organization Department of the CPC promoted China Petroleum and Chemical Corp (SINOPEC) chair Su Shulin to Party Secretary for Fujian province; replaced Su at SINOPEC with China National Offshore Oil Corp (CNOOC) chair Fu Chengyu; and replaced Fu at CNOOC with China National Petroleum Corp (CNPC) CEO Wang Yilin. Somewhat to the bewilderment of foreign business partners, the Organization Department had rotated the tires of China's oil industry. As a testament to the Organization Department's importance, the firms' independent directors learned of these changes from the media. [63]

The practical considerations affecting a Chinese corporate manager's career advancement thus differ starkly from those in the U.S. Exactly how these differences play out is largely unexplored. Such wide-ranging careers plausibly broaden cadres' networks of connections, help them coordinate decisions with other government-controlled businesses, and cement their loyalty to the Party, as opposed to other constituencies such as shareholders or regions.

To be sure, this is not completely different from what happens in other countries. American investment bank CEOs become treasury secretaries and bank regulators, Canadian tax auditors become corporate vice presidents; and the *président et directeur généra*l (PDG) of a French corporation is often a former civil servant from the ministry responsible for regulating that industry.[64]

Indeed, there are remarkable parallels between Chinese and French corporate governance.[65] In France, the 30 years of gloriously rapid post-war reconstruction from 1945 to

58. For a survey of this literature, see Morck, Yeung and Wolfenzon (2005), who argue that the advantages Khanna and Yafeh (2007) attribute to business groups can deter an economy's ascent from middle- to high-income status. This is because the continued dominance of large business groups biases resource allocation so as to protect the vested interest of the groups controlling owners.

59. Easterly (2006)

60. As opposed to the Chinese "versions" of U.S. research questions that, if relevant at all, are mostly of much less economic importance.

61. See Landry (2008) and McGreggor (2010) for different perspectives on these issues.

62. See Allen and Shen (2013); Li and Zhou (2005); Lu (2000); Landry (2008); Pistor (2013)

63. For more details about these decisions, and about how the independent directors were out of the loop entirely, see McGreggor (2010).

64. Career moves from government to business are sufficiently commonplace to justify the presence in French dictionaries of the *Académie Française* sanctioned term *pantouflage* (shuffling wearing indoor slippers) and the Japanese term *amakudari* (descent from heaven) to describe such events. See Bertrand et al. (2010); Heilbrunn (2005); Kramarz & Thesmar (2006); and Smith (2004).

65. See Pistor (2012).

1975, dubbed *les trente glorieuses*, are associated with extensive state intervention in corporate governance. While the role of the state has been now scaled back, many institutions of this era remain in place. Both government and business draw on the graduates of an elite set of schools, *les grandes écoles*. These admit students from throughout France solely on academic merit. Their graduates, called *énarques* after the *École National d'Administration* (ENA), arguably the grandest of the schools, follow a standard career path. CEOs typically begin in the civil service and later move to senior management positions, often in the firms they previously regulated. Most French CEOs, senior corporate managers, and directors are *énarques*, as are most government top regulators and senior politicians.[66] Whether because of this system or despite it, France achieved very high growth in these decades. We posit that France's meaningfully meritocratic *énarchie* helped counter its *trente glorieuses* system's obvious vulnerabilities to cronyism and entrenchment.[67]

The virtue of such a system in China's recent financial history may be its amenability to the centralized coordination necessary to effect a Big Push. At this point, research provides few answers and leaves many questions open. Does the rotation of CEOs and Party Secretaries through different firms and government and Party positions help coordinate Big Push growth? How does a CEO who exploited his firm's monopoly or monopsony power to "hold up" another firm, behavior that Rosenstein-Rodan thought inevitable in an every-firm-for-itself economy fare, in China? Is his career advanced because his hold-up play created value for his own firm's shareholders; or does his failure to harmoniously facilitate overall economic growth instead land him in an isolated and unpleasant backwater for the next stage of his career? We do not know.

Government leaders' incentives. Alternatively, China's uniqueness may follow from the incentives it sets before its government leaders. The failure of previous state-led Big Push efforts is attributed to pervasive government failure.[68] This line of reasoning holds that the sweeping scale and intensity of state intervention associated with a state-led Big Push so greatly raise the returns to influencing government officials that political influence, rather than investment in productivity enhancement, becomes the most reliably profitable investment opportunity on offer. Thus, India's attempt to implement a Big Push in its first decades after independence generated rapid growth for about a decade, and then collapsed into rampant political rent-seeking. The ensuing Licence Raj featured legions of ill-paid profit-maximizing bureaucrats, each conveying approvals, permits, and licences to the highest bidders, thereby delaying, obstructing, or sabotaging business activity of every kind.[69] Business owners quickly found that investing in official connections generated a far higher return by easing these burdens than any investments in capital assets or technology. Development slowed and the Indian economy became a morass of regulation overgrowing increasingly antiquated and dilapidated physical assets. Such a situation can become a stable "equilibrium" that severely limits further growth.[70]

Official corruption is, of course, widely recognized as an important problem in China too. But China's growth has persisted despite these problems. Two characteristics of Chinese governments have been proposed to explain this.

One explanation turns on the quasi-meritocratic nature of the CPC. This argument holds that many CPC cadres, especially at higher levels, are highly intelligent and competent technocrats, whose careers depend on demonstrable evidence of their facilitation of rapid growth in whatever firms, jurisdictions, or industries they oversee. This combination of incentives and competence could limit government failure, and explain why China's Big Push has worked to date.

For example, a recent study of the governance of China's banking system finds that top bank executives, government regulators, and party cadres in banks and regulatory agencies form a tight network,[71] and argues that influence within this network correlates with ability. Because of this correlation, the system may be more socially productive than networks of entrenched cronies in many other developing countries.[72]

Indeed, some do suggest have suggested that the entire Party hierarchy may well be substantially meritocratic, at least in important ways. Cadres reporting economic gains in the towns, cities, provinces, corporations, or industries they oversee tend to be promoted, as long as they also obey CPC policies and instructions.[73] Both factors recall ancient Chinese traditions—examination-based rankings in the Imperial Civil Service and the Confucian virtue of obedience to superiors. They also suggest a surprising effectiveness of the CPC's human resources management.

It would be useful to know how meritocratic different parts of the Chinese country and corporate governance systems actually are, and what other considerations affect cadres' careers. Is merit more important in cadres' promotions where the sorts of decisions they make have more economic importance, especially as regards coordinating growth? Is there regional variation? If so, does the system work better in places where cadres' career moves are more clearly merit-based?

These questions remaining unsettled, a degree of caution is warranted. An appearance of meritocracy may disguise tight networks of patronage and corruption. Or a genuine

66. See Pistor (2012).
67. On this era of French corporate governance, see Bauer and Mourot (1994), Gildea (2002), and ESP. Roe (2003, c. 7). On current problems stemming from those institutions, see Smith (2004).
68. See Easterly (2010).
69. See Dalrymple (1998) on the License Raj.
70. See, for example, Murphy et al. (1991, 1993).
71. Pistor (2012).
72. See Faccio (2006) and Faccio et al. (2006) for cross country evidence on these issues.
73. See Landry (2008), Macgregor (2010), Allen and Shin (2012), Pistor (2012) and Spence (1999).

meritocracy at present might collapse into such a network over time. Or merit might be defined in socially suboptimal ways; for example, does accelerating a city's contribution to overall GDP growth at the expense of environmental degradation constitute genuine merit?[74]

Public Choice Theory A second category of explanations about why government failure is as yet in check in China turns on competition between different parts of the government. Public choice theory posits that, under certain conditions, competition between governments for taxpayers can induce the efficient provision of public goods.[75] A jurisdiction that provides poor public goods and services for high taxes, or perhaps high side payments to officials, loses taxpayers to competing jurisdictions that provide value for tax money. These arguments are invoked to explain why, for example, taxpayers do not migrate from high-tax states such as Minnesota to low-tax states such as Alabama. Government services in Minnesota are posited as sufficiently superior to discourage emigration.

China is a highly decentralized federation. Its city and provincial governments have substantially different track records. Some implemented market reforms rapidly and thoroughly; others delayed, hedged, and compromised. It quickly became apparent that those cities and provinces that freed markets more quickly and fully achieved greater prosperity. People and business activity fled laggard areas for the more dynamic market-oriented jurisdictions. This raises the possibility that Chinese governments are competing with each other to attract business activity and individuals with high human capital.

This is plausible. Cadres' running regional governments control budgets that depend on the earnings of the state-owned enterprises that their governments control, on the revenues their governments earn from land leases, and on the tax revenues they manage to accrue. Such cadres therefore might desire to maximize the economic activity over which they preside so as to maximize the budgets they control. A city or province that provides poor public goods and services and makes doing business costly loses economic activity to other cities or provinces. This reduces the earnings of its state-owned enterprises, the value of its land leases, and its tax revenues, leaving its senior cadres subject to tighter budget constraints.[76]

No hypothesis has solid empirical validation, but all merit attention. We do not really know how meritocratic the Communist Party truly is. Nor do we know how the meritocratic element of Party governance varies across regions and over time, nor how this variation might affect the governance of banks, state-owned enterprises, and the many "private" corporations that are nonetheless deeply connected to various levels of government or to prominent Party or government officials. We do not know how aggressively Chinese city and regional governments compete, what they compete for, and how such competition might affect corporate governance.

Hidden Virtues of Spontaneous Privatization?
Yet another possibility is that China's success is not due to its government, and that Big Push coordination is actually led by an emerging private sector that features large business groups, rather like Japan's *zaibatsu* and South Korea's *chaebol*.

An important phenomenon in 1990s in Eastern Europe and the former Soviet Union was spontaneous privatization—the appropriation of nominally state-owned assets by politically connected insiders.[77] This ranged from prominent Party cadres simply backing empty trucks up at state-owned enterprises' loading docks to self-dealing in voucher privatization programs. The result was the very rapid privatization of the most valuable state assets. This rapid privatization was justified by reformers as a necessary evil—better corrupt ex-communist business tycoons than bitter communist ex-apparatchiks plotting the restoration of Communism.[78]

Something akin to spontaneous privatization may have occurred on a major scale in China too. Structures of controlled listed firms reminiscent of Japanese *zaibatsu* and Korean *chaebol* appear to have formed, though controlled by state-owned enterprises rather than family firms.[79] To the extent that meritorious princelings or other highly placed cadres now control these, a form of private ownership over business groups may be solidifying, or at least gelling.[80] Thus, China's cross-industry coordination, like that in Meiji Japan and South Korea, may actually be the work of corporate tycoons rather than communist central planners.

The difference is that in China, in contrast to Japan or Korea, the business tycoons to whom development coordination decisions are delegated also happen to be connected to the Party. As in Meiji Japan, the Chinese government created state-owned enterprises and endowed many with imported technology. However, China's mechanism for transferring control differs from Japan's mass privatization, in which

74. See Wu et al (2014).
75. See Buchanan and Tullock (1962) and Tiebout (1956)
76. Gordon and Wei (2012) examine the finances of China's multiple levels of government, and describe how traditional models of intergovernmental competition for taxpayers can be modified to accord with Chinese stylized facts and data. Various different levels of government control their own banks and constellations of SOE. Communist Party structures parallel each level of government, and oversee the careers and promotions of cadres working in those governments, banks, and state-owned enterprises. The top Party and government officials running each local or provincial administration promote economic growth to advance their careers. They have the power to discipline subordinates who delay, or otherwise obstruct economic activity. This pressure, in turn, has at least the potential to promote efficient government and good corporate governance in banks and state-owned enterprises.
77. See Johnson and Kroll (1991), Aslund (2002) and Shleifer (2005).
78. See Shleifer (2005).
79. See Fan, Wong and Zhang (2013).
80. See, e.g., Bloomberg News Dec. 26th 2012 at www.bloomberg.com/news/2012-12-26/immortals-beget-china-capitalism-from-citic-to-godfather-of-golf.html

state-owned enterprises embodying imported technologies were auctioned off to private buyers. Still, the end result may be similar: the creation of seeds around which large diversified business groups can form. Once private ownership is in place, logic of the sort that motivated LG's expansion in South Korea can guide the business group's expansion along lines consistent with Big Push coordination—provided sufficient capital is available.

Capital in China is cheap and abundant for established large firms, if not for entrants. China's savings rate is extraordinarily high, and Chinese savers have few investment opportunities.[81] They can either put their savings in state-run banks or buy shares in listed firms, most of which are state-controlled, either directly or indirectly. The yuan is not a hard currency (it does not trade freely in foreign exchange markets), and Chinese savers cannot legally invest abroad, save through a handful of strictly limited investment funds.

The large domestic demand for savings instruments, juxtaposed with their limited supply, keeps state-run banks' interest payments low and makes equity sales by state-owned enterprises remunerative. This amounts to a kind of state-sanctioned "oppression" of savers to keep the cost of capital low for SOEs and their insiders. Financial repression may well be defensible as a way of mitigating coordination problems that would otherwise curtail the flow of capital into diverse sectors of the economy.

Research is needed to clarify how Chinese corporate governance contends with potential "hold up" problems, missing pieces of the network of necessary firms, and other coordination problems associated with operating in an economy under construction. One recent study reports that business groups are more vertically integrated in parts of China with weaker legal institutions, less advanced reforms, and more interventionist governments—and in cases where controlling owners are more politically connected. The study further reports that vertical integration in business groups without political connections correlates with per capita GDP growth, but vertical integration in business groups with political connections does not.[82] One interpretation of these findings is that vertical integration can also be a coordination mechanism, and aimed at extracting monopoly rents is more common in less liberalized regions where insiders are more rapacious. But another is that vertical integration is more necessary where GDP growth remains low and free-market institutions are weaker, leaving centralized coordination of economic activity more important. Perhaps the difference in GDP growth associated with politically connected versus unconnected groups is evidence that political connections slow growth, or perhaps it means business groups can do without connections where GDP growth is underway and government cadres care more about growing their budgets and less about trading favors with cadres who run businesses. Here again, speculation has to be replaced by rigorous research.

More generally, researchers might usefully contrast Chinese corporate governance with Japanese governance in the late 19th century, Korean governance in the 1970s to 1990s, or even French governance during that country's postwar reconstruction, rather than present-day American norms.

Is China Ready for Anglo-American Corporate Governance?

For centuries, foreign experts have patronizingly declared China "not ready" for democracy, freedom, capitalism, and other Western institutions. We are decidedly not taking this view. Rather, we raise the possibility that Anglo-American corporate governance is disadvantageous to *any* country undergoing very rapid development. This is because Anglo-American corporate governance is explicitly about the governance of individual corporations: each firm's management is charged with maximizing the market value of its shares. During a Big Push, this could be a recipe for disaster.

The recurring theme of Anglo-American corporate governance rules, regulation, and law is the maximization of firm value.[83] Independent directors, non-executive chairs, external auditors, and institutional investors are all contemplated as checks and balances that prevent self-interested CEOs or controlling shareholders from running their firms to maximize their personal utility rather than the wealth of their shareholders. Hostile takeovers and shareholder lawsuits are alternative mechanisms that can come into play if CEOs defeat these checks and balances. All of these alternative mechanisms of corporate governance make sense only on the implicit precondition that social welfare is maximized when the value of every individual firm is independently maximized.

Rosenstein-Rodan argues that this precondition is violated during a Big Push. When a Big Push is needed, product markets are typically "thin." Yet, firms with market power must forswear exercising it to maximize their share valuations by holding up vulnerable firms. In short, social welfare optimization requires that corporations be governed together, or at least in very large groups.

China has formally enacted corporate governance regulations that are seemingly modelled on those of the United States, but drags its feet about their real implementation.[84] Thus, real questions arise about the actual power dynamics on Chinese boards, the information content of Chinese financial

81. See Young et al. (2012)
82. Fan et al. (2014)
83. See Shleifer and Vishny (1997).
84. See Allen et al (2012) for a discussion of Chinese securities. And for a discussion of the deficiencies of Chinese corporate disclosures, see Piotroski and Wong (2013) as well as Joe Piotroski's review article in this issue of the JACF.

statements, the economic purpose of mergers, and the sorts of pressures institutional investors should be exerting. To many observers, China appears to be adopting the form, but not the substance, of American corporate governance. Champions of the Anglo-American model find this deplorable; but if that model fails to fit China's current economic realities, this lack of substance is understandable.

Is Chinese Culture Economically Exceptional

Obviously China is culturally exceptional, but does Chinese culture, or its deep institutional or historical features more generally, contribute to its rapid growth? Whenever China does poorly, allegations about the intrinsic hostility of Chinese culture to development draw attention. Now that China is doing comparatively well, Chinese culture is lauded as an obvious advantage.

Thus, a recent study finds that people's willingness to trust other people in general correlates with national economies' ability to sustain large organizations, such as big businesses.[85] China ranks near the top, alongside Finland and Denmark, in this kind of trust and near the bottom, again alongside the Scandinavian countries, in adherence to hierarchical religions. The study designates Roman Catholic Christianity and Islam "hierarchical" and Confucianism as non-hierarchical.

This judgment call jars somewhat with earlier explanations of how Confucius' teachings limit economic development. Consider, for example, the following assessment by L.Y. Ho, a frustrated Chinese reformer in 1912, of how Confucianism's obsession with hierarchy keeps China backward:

> *Confucianism advocates the superiority of antiquity. From that follows the corollary: "Love thy parents and reverence the Emperor." As the Emperor is the head of heads, loyalty to the Emperor precedes filial devotion to parents. The Emperor being absolute over his subjects as the father over his children, it became his interest to inculcate unquestioning obedience in his subjects. According to the old conception of government, the best way of bringing this about was ignorance.*[86]

Perhaps traditional Chinese values are more amenable to rapid development than Ho allows. A Big Push requires coordination from above—if not from the state or Party, then from a controlling tycoon. Confucius' teachings sanctifying obedience to authority might be a positive advantage in limiting agency problems associated with a Big Push. More deferential executives at lower levels throughout a business group might, for example, be more likely to obey commands from above and thus better act in concert for the good of the business group or the whole economy. If so, the restoration of Confucian values underway at present in the People's Republic may be an important energizer of growth. Confucian values may well reinforce the carrot and stick system of the CPC, especially as it contributes to the economic growth that legitimizes its political monopoly.

If Confucian values, by commending obedience to authority, are an advantage in mobilizing resources for a Big Push, they may be counterproductive in achieving full-fledged economic development. Big Push development is a "catch up" strategy, but a large and increasingly persuasive body of empirical evidence suggests that innovation, especially by "creative destruction," is the essential driver of economic growth for high-income economies. Innovation requires creativity and originality, not obedience.

Another consideration is the fluidity of culture. Consider, for example, the recent rapid evolution of the concept of "marriage" in Christian cultures. Such change makes cultural variables questionable candidates for deep underlying explanations. Confucianism in 1912 may well be as far from Confucianism in 2012 as Plymouth Rock Puritans are from their politically correct Congregationalist descendants.

China's rulers and people only a century ago were profoundly conservative and tradition-bound. The Dowager Empress Cixi allegedly forbade a railroad to Beijing for fear it would disturb the souls of her ancestors. She supported the Boxers, the Society of Righteous Fists, who tried to exterminate all foreigners in China and believed themselves magically protected from bullets.

Mao swept away all this pre-enlightenment magical thinking, if only to replace it with other forms of magical thinking, such as the belief that human nature might be changed by slogans and terror. Mao's repeated failures left magical thinking discredited in the China of 1978, and pragmatism a sign of sophistication. Deng Xiaoping's famous remark that "it doesn't matter what color a cat is as long as it catches mice" was far more than a witticism. It was a reflection of the empiricism and rationalism that were now intellectually respectable. The Hu-Wen regime (2003-2013) explicitly advocated a "scientific development" approach.

A 2002 study by Acemoglu, Johnson and Robinson shows that ex-colonies with more advanced indigenous institutions tend to fare worse after independence. The authors' explanation focuses on the durability of such pre-colonial institutions that, because designed to stabilize extractive economies run for the benefit of small elites, first pre-colonial and then colonial, end up providing greater barriers to broad-based development. This explanation might be used to suggest that Mao, by crushing traditional Chinese institutions, also succeeded in obliterating any cultural barrier to development in China. If so, research focusing on differences in the persistence of traditional values in different parts of China, or different segments of society, might be useful. Is development slower where traditional values are more durable?

85. La Porta et al. (1997).

86. Ho (1912, p. 4).

However, the successes of Korea, Japan, and Taiwan as well as those of Hong Kong and Singapore constitute a problem for this explanation. China and its very economically successful neighbours have traditional cultural values derived largely from the same historical roots. If Mao's destruction of traditional values cleared the way for development, how did China's neighbors manage their earlier rapid industrializations? Meiji Japan plausibly remade Japanese institutions profoundly, but the other newly developed countries of the Sino-sphere continued to revere their traditions.

Although the idea seems counterintuitive, there is now abundant evidence suggesting that the instability associated with creative upstart firms continually arising to destroy established firms actually has a stabilizing effect on the economy as a whole by sustaining a broad-based prosperity that leaves social problems more tractable than in a stagnant economy.[87] How to spark creativity in a society that venerates hierarchy has become a major policy question in both Japan and Korea. Even if deepening Confucian values help China affect its Big Push, it seems likely that further development would favor cultural evolution towards a more American acceptance of brash upstarts who overthrow established ways of doing things.

Habit Formation and Governance Options

Even if China's current emulation of American corporate governance amounts to little more than "going through the motions," cognitive dissonance can turn habits into values. CEOs who ritually turn to boards for approval may come to need that approval if it is someday withheld. Directors, basking in the social status that position provides, may someday find media or shareholder criticism of their decisions so disturbing that they reassess CEOs' decisions to avoid it.

The critical reason why Chinese corporate governance remains, to a large part at least, show rather than substance is the fundamental constitutionally entrenched position of the CPC above the law. Every rule, regulation, law, and court decision is subject to the approval of the CPC. This effectively gives the Communist Party options to amend any business contract, regulatory decree, or court judgment in the interests of the Proletariat. Chinese corporate governance must take these ubiquitous official discretionary options as given. Some of the arguments above even allow that these options have a constructive function in coordinating economic activity.

Official discretionary options are not uniquely Chinese. American firms buy property that can be taken by eminent domain, and American courts can amend business contracts that run counter to public policy. Patents can be limited if a pressing social problem—a disease like AIDS, for example—necessitates broader availability of a drug. The American government overrode the Wright brothers' patent on the airplane so the American military could arm faster in World War I.

China's political discretionary options are different, however. The corporate governance of every business of any importance operates subject to options to veto held by an invisible boss. Any decision, contract, or property right can be overridden should the invisible boss exercise an option. Corporate decision-making must thus proceed with the mixed objectives of maximizing firm value subject to the constraints these options imply. The CPC's overriding authority, which most likely reflects decisions made by the Upper Standing Committee or Politburo, may indeed be instrumental to the successful central coordination of a Big Push. But these ubiquitous discretionary options also guarantee senior cadres' paramount power, influence, and policy flexibility, and are perks that are doubtless hard to surrender. We worry that these options are sowing seeds of corruption, and hindering the development of the sound firm-level corporate governance that will be needed in an innovation-driven ascent to high-income status.

Every present-day high-income country once traversed a similar path. Western European absolute monarchs and North American colonial governors once stood above the law, but were humbled by rebellions and revolutions in some countries and by largely peaceable reforms in others, though fear of revolution may have played a role everywhere.[88] Absolute rulers first accepted the interference of councils of barons, then unelected legislative councils, and finally freely elected parliaments. They accepted reforms that denied them the powers to appoint and dismiss judges and civil servants, and that ultimately subjected them to the same laws that commoners had to obey. No country, save a handful of small petro-states, has ever attained and sustained high-income status without this transition. Perhaps China is different, but we are inclined to doubt it.

Our greatest concern is that China could be caught in a middle-income trap. Could China, in the long run, settle down to become a giant Peru? An oligarchic elite—*de facto* if not *de jure* permanently above the law—may persist in control of both the state and the economy. That elite may fear the microeconomic instability associated with growth through creative destruction, and seek to preserve their power to coordinate the economy in the name of a stability that incidentally preserves a political, economic, and social status quo advantageous to its members.[89] There will be no shortage of justifications for slowing or pausing development: the loss of jobs in old firms that results from creative destruction

87. See Rajan and Zingales (2003, 2004), Morck, Wolfenzohn, and Yeung (2005) and others.

88. North et al. (2006).

89. There is now a large literature on this topic, see, e.g., Morck, Stangeland and Yeung (2000); Rajan and Zingales (2003, 2004); Morck, Wolfenzon and Yeung (2005); Academoglu and Robinson (2012); and others.

90. See Davis (2014).

often precedes the growth in employment associated with the rise of new firms, creating unemployment and political pressure to bail out the old firms or constrain new competitors.[90] In addition to slowing creative destruction, bailouts can lead to financial crises as the debts of old firms become sovereign debts. China's current crop of SOEs, whether their privatization is completed or not, would likely be destroyed quickly should creative destruction commence in earnest. Would this be allowed? Or would ever-rising bailouts trigger a Chinese financial crisis? Or could an altruistic and visionary leadership lead China peacefully past the middle-income trap?

Conclusions

China may indeed be exceptional. Its meritocratic predispositions, its people's willingness to obey a legitimate hierarchy, and its very real reforms that reoriented its multiple levels of government towards enhancing economic growth have worked well to date. China has gone far towards accomplishing a Big Push—the all-embracing transition from subsistence agriculture to an industrial economy. That transition is a necessary first step on the path to sustainably high-incomes for all Chinese.

But Big Push coordination is only the first step. The corporate governance institutions appropriate to overcoming the coordination problems intrinsic to early-stage development are apt to work ever less well as development continues. As Hayek and many of his followers have argued, even in economies with minimal amounts of corruption, information and coordination problems tend to grow rapidly as an economy develops, and central planners are almost certain to become overwhelmed by allocation tasks that markets have been shown to solve well. And China is not without corruption. Private-sector business groups might already be better positioned to advance growth than state-run groups, but at some point business groups in general will outlive their usefulness. Once all the components of a modern economy are in place, decision-making is better removed to the level of individual privately owned companies, where market forces are most keenly felt. At that point, institutions resembling those in existing high-income countries seem necessary if China's rise is to continue, even if this discommodes its elite.

When that time arrives, China may benefit from business leaders, investors, bankers, and regulators accustomed to going through the motions of an Anglo-American system of corporate governance. The show of Western governance institutions might gain substance if China successfully transitions to market-driven decentralized firm-level planning. Once real decisions are made at the firm level—and without oversight or central guidance—corporate governance will become central to how China allocates capital, labor, and resources. Investors' expectations about how firms are governed will determine the cost of capital for entrepreneurs setting up new firms, and thus the pace of creative destruction. Experience in going through the motions may make this transition easier.

China's reforms since 1978 have been experimental and gradual. An officially sanctioned metaphor is "feeling the stones to cross the river." One interpretation of China's current policy of emulating the form, if not the substance, of U.S. corporate governance, financial regulation, and so on is that this amounts to feeling for a stone that may someday carry the country's full economic weight. If so, China's most senior cadres are contemplating passing the responsibility for coordinating the economy to market forces and the responsibility for responding to those forces to the top executives of individual firms.

China's emulation of developed economies' institutions probably makes sense. Missing institutions can be worked aroundwork in a small country, whose residents can "borrow" foreign institutions. For example, a small European country might do perfectly well without an active stock market because its more entrepreneurial residents can list their firms in London or Amsterdam. However, an economy of China's size probably needs a full spectrum of domestic institutions that are oriented toward and capable of sustaining the prosperity of its people.

At present, the greatest challenge confronting China's reformers may well be subjecting its elite—senior cadres in control, "princelings," and other vested interests—to the rule of law. This is difficult because it runs counter to the constitutionally enshrined Leading Role granted the Party. But all other high-income countries, excepting a few petro-states, did likewise, and in the process rethought equally cherished traditions—for example, the necessity of an absolute monarch for keeping the peace.[91]

Perhaps such changes might come about as China searches for ways to address its problem of inequality. While inequities such as the "hukou" system[92] attract increasing attention, the widest inequality is that between the CPC elite and everyone else. Although their official monetary incomes were not high under Mao, this elite occupied the Commanding Heights of the economy. Many of their descendants, China's "princelings," lead lives of great privilege and may be emerging in positions of power throughout the economy and government.[93] While intelligence is arguably partially inher-

91. See Fukuyama (2011).

92. China inherited a legacy of real inequality from early Communist reforms that assigned everyone a hereditary "hukou" (household registration) designation. This binds people to specific localities, and civil privileges vary substantially by location, and thus by "hukou." Because post-1978 economic development centered on cities, particularly coastal cities, the gap of economic opportunities between rural and urban location, and even between rich and poor cities, has widened considerably. See Freeman (2014) for details.

93. See, e.g, Bloomberg News Dec. 26th 2012 at www.bloomberg.com/news/2012-12-26/immortals-beget-china-capitalism-from-citic-to-godfather-of-golf.html.

ited, their prominence begs uncomfortable questions about the sustainability of a meritocratic character in the CPC. [94]

Another potential vested interest is people who succeeded in the current system based on merit, and who might well be top performers in any management or government system. They contributed greatly to China's decades of reform and earned commensurate privileges, which spill over to their children, relatives, and associates. They too could become oligarchs.

Will descendants of heroes of the decades of reform, like those of heroes of the Long march, the Liberation, and the decades of communism, become a nascent network of hereditary oligarchs, whether consciously or not, working to lock in their privileges regardless of the social costs to the country?

China currently depends on cheap labor and financial repression, and so is essentially an extractive economy, and therefore subject to what Daron Acemoglu and James Robinson, in their 2012 book *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*, call the *iron law of oligarchy*, mutually reinforcing political and economic institutions that lock in high inequality and slow growth.[95] In their 2004 book, *Saving Capitalism from the Capitalists*, Raghuram Rajan and Luigi Zingales provide a compelling account of mid-20th century "great reversals" in the financial development of many countries. They show that, in a remarkable number of economies, after an initial period of rapid development, an aging cohort of business leaders and their heirs work to undermine their countries' financial system to deny capital to potential entrants, their would-be competitors. This entrusts corporate governance to decreasingly talented and more entrenched generations of old-moneyed business families. Is China building an enduringly strong financial system that will continue capitalizing new firms into the distant future? Or are its banks and stock markets simply mechanisms for capitalizing an initial set of businesses and providing the well-connected with family wealth proportionate to their political influence? Or, most fundamentally, will vested interest benefiting from the present unbalanced access to capital resist, or even reverse, liberalization?

Perhaps measures that subject individual cadres and their relatives to the rule of law, while preserving the status of the Party as an institution, could prove politically viable as reforms aimed at enhancing equality. Such reforms would be reminiscent of how other countries solved similar problems. For example, Britain preserved the legal supremacy of its parliament, but subjects all individual members of parliament, including the prime minister, to the rule of law. The situation contains contradictions—for example, parliament cannot pass a law that it cannot repeal—but the British muddle through. The Canadian constitution preserves the supremacy of its parliament by letting parliament enact a law "notwithstanding" the fact that the law itself is unconstitutional. By delineating a process through which this must be done, the constitution ensures that it almost never happens, but ancient traditions are preserved. The United States explicitly gives different parts of it government power over each other with the goal of creating a system of checks and balances.

Perhaps China could employ some similar *léger de main*: for example, the Party might be allowed to force a measure "notwithstanding" its being illegal—but only under specific circumstances and by using a specific procedure.[96] Or China might make its courts entirely independent of Party oversight to create a system of checks and balances. The histories of today's high-income countries provide a number of options, and legal scholars could no doubt produce more.

However, the economic histories of all large high-income countries have much in common. Perhaps most importantly, all found ways to subject their government to the rule of law.[97] This was essential, for unlimited governments cannot make credible commitments to enforce business contracts or safeguard investors. All passed through periods of laissez-faire limited government, when stock markets financed new large firms, when the penalty for falling behind was bankruptcy, and when growth rates far exceeded historical norms.[98] This includes currently bank-centered economies, such as Germany and Japan, whose initial industrializations were largely stock market financed.[99] All found ways to press the managers of individual firms to align good governance, at least roughly, with economic efficiency and successful innovation.[100] The precise mechanisms differ somewhat across high income countries, with different roles for institutional investors, shareholder lawsuits, boards of directors, corporate takeovers, foreign investors, banks, employees, product market competition, and other factors. But the differences are minor compared to the difference between China now and any of the major high-income countries.

China's easier path is to emulate successful Western country and corporate governance more faithfully, as Japan, Korea, and Taiwan have. This done, state-owned enterprises could be fully privatized, Party Secretaries and Party Committees could fade away, and the financial system could turn to financing creative new firms of the sort that power creative destruction. The government could then specialize in the core competencies of government—public education, health care, and disinterested justice. This obviously necessitates rethinking the Party's role.

94. On Chinese "princelings," see Brown (2014).
95. See Acemoglu and Robinson (2012).
96. For example, as discussed in the article in this issue by Paul Gillis, the proposed IPO of Alibaba amounts to a direct violation of the spirit (if not the letter) of Chinese law, which restricts ownership of businesses in certain enterprises to Chinese citizens or institutions.
97. See Fukuyama 2005
98. Morck and Steir (2005).
99. For the case of Germany, see Fohlin (2005) and for Japan, see Morck and Nakamura (2005).
100. See Roe (1996, 2003); La Porta et al. (1999).

The alternative and far more difficult path is to clear a new trail through the unexplored economic territory between where China is now and high-income status. The great attraction in discovering an entirely new path is that this might let China retain its current interpretation of the Party's Leading Role. The dangers in this strategy are that no such path might exist, that such a path might impose other limitations on the Party, or that forging such a path might prove beyond the leaderships' ability. Certainly, clear knowledge of such a path is beyond the current limits of economics. Nonetheless, as we conceded at the outset, economics might have more still to learn from China than China has to learn from economics.

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