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Communism and Economic Modernization

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Communism and Economic Modernization

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Abstract
The paper examines the range of national experiences of communist rule in terms of the aspiration to 'overtake and outstrip the advanced countries economically'. It reviews the causal beliefs of the rulers, the rise and fall of their economies (or, in the case of China, its continued rise), the core institutions of communist rule and their evolution, and other outcomes. The process of overcoming a development lag so as to approach the global technological frontier has required continual institutional change and policy reform in the face of resistance from established interests. So far, China is the only country where communist rule has been able to meet this requirement, enabled by a new deal with political and economic stakeholders. The paper places the "China Deal" on a spectrum previously limited to the Soviet Big and Little Deals.

Keywords: Beliefs, China, communism, convergence, growth, institutions, modernization, policy reform, Russia.

JEL Codes: B14, H56, N40, P20.

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Communism and Economic Modernization

In the 1950s, one third of the world's population lived under communism. In World War II the Red Army of the Soviet Union, the first communist state, had destroyed the armies of Germany, Romania, and Bulgaria and the Kwantung army of Japan. In the wake of the Soviet Army, Communists took power in Albania, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, and Romania. Communist resistance movements took power in Yugoslavia, North Vietnam, North Korea, and China. Other countries with experience of communist rule include Cuba, Laos, and Cambodia.

Wherever they took power, communist leaders adopted new economic institutions. There were common themes with some national variations. There was state ownership of the 'commanding heights' of heavy industry and transport, small peasant farms were amalgamated into large cooperatives under state supervision (except in Poland), and many markets were suppressed (but fewer in Yugoslavia). Everywhere economic management was politicized so that decisions at every level were based on what was supposedly right or wrong for the country rather than profit or loss. Because these institutions worked imperfectly, all the countries under communist rule also made attempts at reform. In the European communist countries all such reforms failed.[1] Between 1989 and 1991 communist rule ended everywhere except China, Vietnam, Laos, North Korea, and Cuba.

These economies were termed 'socialist' because the Marxist-Leninist ideology of their rulers adopted the goal of communism, a society of abundance and voluntary sharing, with socialism as the current developmental phase that would precede its attainment. The challenge presented by communism was military and cultural as well as economic, but both military power and cultural appeals were underpinned by economic strength, and the relative merits of socialist economic institutions were widely debated. At one time it was commonly thought that communist Russia would overtake America in productivity and

[1] Włodzimerz Brus, 'Institutional change within a planned economy', in M. C. Kaser, ed., *The Economic History of Eastern Europe, 1919-1975*, vol. 3 (Oxford: Clarendon Press, 1986); Paul R. Gregory and Robert C. Stuart, *Comparative Economic Systems* (Boston: Houghton Mifflin, 1989); János Kornai, *The Socialist System: the Political Economy of Communism* (Oxford: Blackwell, 1992).

consumption per head in the foreseeable future.[2] Particular inefficiencies of the socialist economies were obvious, but many believed until the end or beyond it that either more ideology or less ideology could fix the defects while retaining the core institutions. Regardless of any difficulties, their control of economic resources was enough that communist rulers could confront the West militarily and diplomatically in Europe, Africa, Asia, and South America.

The term 'modernization' was not native to the communist lexicon. Nonetheless the ideology of communism provides obvious equivalents to the objective of modernization in rejecting traditional or pre-modern institutions and customs and setting ambitious developmental aims and objectives for societies under communist rule. In China the objectives of strengthening agriculture, industry, science and technology, and national defence, advanced by prime minister Zhou Enlai in 1975 (and after him by Deng Xiaoping), are conventionally translated as the 'four modernizations'; since 1982 'socialist modernization' is the goal that China's constitution has prescribed for its people.[3]

Aims and objectives

In 1917 and the years that followed, the Bolsheviks stole power and property from Russia's nobility and new middle class. After a decade of upheaval and consolidation, civil war and reconstruction, their dreams had become action plans for the economic and military modernization of the Soviet Union. When other countries joined the Soviet Union in a communist club after World War II, they initially copied these plans, adapting them afterwards to the variety of national circumstances.

Judging from their rhetoric, the communists proposed everywhere to reorganize the economy on socially rational or 'planned' lines so as to move society into the era of abundance. In 1959, for example, the Soviet leader Nikita Khrushchev famously promised to achieve this by 1980.[4] Such goals appeared to be humane, even if the methods used to pursue them often did not. At the same time it is natural to wonder whether we

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[2] E.g. Calvin B. Hoover, 'Soviet economic growth', *Foreign Affairs* 35, no. 22 (1957), 257-270; Oleg Hoeffding, 'Substance and shadow in the Soviet seven year plan', *Foreign Affairs* 37, no. 3 (1959), 394-406.

[3] Constitution of the People's Republic of China at npc.gov.cn/englishnpc/Constitution/node_2824.htm.

[4] Alex Titov, 'The 1961 party programme and the fate of Khrushchev's reforms', in Melanie Ilič and Jeremy Smith, eds, *Soviet State and Society under Nikita Khrushchev* (London: Routledge, 2009), 8-25.

should take such programmatic aspirations at face value and give them causal significance in explaining what was brought about under communism. Politicians generally promise to act on behalf of society by following one or another moral and political code; if we may be sceptical when a president claims to be guided by God, why not when a general secretary claimed to have followed Marx?

Possibly, the overarching aspirations that politicians and business leaders profess, such as to maximize shareholder value or to improve social well being, are too abstract to be informative of their true preferences. More revealing of what really matters to them may be the measurable objectives that these leaders set as intermediate goals and the policy instruments and resources that they allocate to them.[5] On that basis, the measurable modernizing objective that was most widely shared among communist leaders, having taken power in less developed regions, was 'to catch up and overtake' the economically more advanced countries of the West.[6] In October 1917, for example, Lenin wrote:[7]

> The revolution has resulted in Russia catching up with the advanced countries in a few months, as far as her political system is concerned. But that is not enough. The war is inexorable; it puts the alternative with ruthless severity: either perish or overtake and outstrip the advanced countries economically as well.

Ten years later, at the Fifteenth Party Congress in December 1927, Stalin intervened in the struggle between alternative visions of the revolution in Russia and the world to restate the necessity of 'overtaking and outstripping the advanced capitalist countries.'[8] A few years later, in 1931, he reformulated this idea memorably as follows:[9]

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[5] E.g. Vladimir Kontorovich , and Alexander Wein, 'What did the Soviet rulers maximise?' *Europe-Asia Studies* 61, no. 9 (2009), 1579-1601.

[6] R. W. Davies, 'The "modernization" of the Soviet economy in the inter-war years', in Markku Kangaspuro and Jeremy Smith, eds, *Modernisation in Russia since 1900* (Helsinki: Finnish Literature Society, 2006), 71-83.

[7] V. I. Lenin, 'The impending catastrophe and how to combat it', in *Collected Works*, vol. 25 (Moscow: Progress, 1974), 369.

[8] J. V. Stalin, 'Political report of the central committee', in *Works*, vol. 10 (Moscow: Foreign Languages Publishing House, 1949), 310.

[9] J. V. Stalin, 'The tasks of business executives," in *Works*, vol. 13 (Moscow: Foreign Languages Publishing House, 1949), 40-41.

> One feature of the history of old Russia was the continual beatings she suffered for falling behind, for her backwardness. She was beaten by the Mongol Khans. She was beaten by the Turkish beys. She was beaten by the Swedish feudal lords. She was beaten by the Polish and Lithuanian gentry. She was beaten by the British and French capitalists. She was beaten by the Japanese barons. All beat her - for her backwardness: for military backwardness, for cultural backwardness, for political backwardness, for industrial backwardness, for agricultural backwardness. She was beaten because to do so was profitable and could be done with impunity ...
>
> That is why we must no longer lag behind.
>
> We are fifty or a hundred years behind the advanced countries. We must make good this distance in ten years. Either we do it, or they crush us.

The importance of military motives for communist economic modernization is something that historians have rediscovered. During the postwar period, economists on both sides of the Cold War tended to define the Soviet Union as a 'developmental state' of the sort that was later identified with postwar Japan.[10] They described a Soviet strategy for economic development driven by benevolent goals of civilian welfare, perhaps distorted by an unduly long time horizon and willingness to impose present sacrifices for the sake of future generations. Military motives, other than purely defensive considerations, were rarely examined in any depth.[11]

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[10] M. H. Dobb, Soviet Economic Development since 1917 (London: Routledge and Kegan Paul, 1948); Nicolas Spulber, Soviet Strategy for Economic Growth, and Foundations of Soviet Strategy for Economic Growth: Selected Soviet Essays, 1924-1930 (Bloomington: Indiana University Press, 1964); Charles K. Wilber, The Soviet Model and Underdeveloped Countries (Chapel Hill: University of North Carolina Press, 1969); Alec Nove, An Economic History of the USSR (London: Allen Lane, 1969); Holland Hunter and Janusz M. Szyrmer, Faulty Foundations: Soviet economic policies, 1928-1940 (Princeton: Princeton University Press, 1992); Robert C. Allen, Farm to Factory: a Reinterpretation of the Soviet Industrial Revolution (Princeton: Princeton University Press, 2003). On Japan see Chalmers A. Johnson, Japan, Who Governs? The Rise of the Developmental State (New York: Norton, 1995).

[11] But exceptionally see E. H. Carr and R. W. Davies, *Foundations of a Planned Economy, 1926-1929*, vol. 1 (London: Macmillan, 1969), pp. 454-60.

In contrast, studies of Bolshevik politics and policies in the 1920s based on the Russian archives have advanced new evidence of the weight of military interests and military security in Stalin's key decisions to accelerate industrialization, collectivize peasant farming, and squeeze consumption for the sake of accumulation and defense.[12] Based on related arguments about Soviet leaders' 'revealed preferences', Vladimir Kontorovich and Alexander Wein have argued that the prime objective of communist rule in Russia was military modernization, or to 'catch up and overtake' the West militarily.[13] In their view, economic modernization was just a means to military competition.

Beliefs

Stalin and other communist leaders shared strong convictions about how the world worked. They believed that the decisive factor in the world was power, and that power was ultimately the power to dominate and coerce by superior force rather than the power to persuade or attract by superior example or to engage cooperatively. They defined international society by its distribution of power, and they saw the opportunity for Russia as more to contend for domination than to cooperate through exchange. They did not rule out trade, but saw it as a channel for redistributing a fixed sum of values between winners and losers, rather than a means of augmenting values from which all could gain.

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[12] N. S. Simonov, Voenno-promyshlennyi kompleks SSSR v 1920-1950-e gody: tempy ekonomicheskogo rosta, struktura, organizatsiia proizvodstva i upravlenie (Moscow: Rosspen, 1996); John Barber and Mark Harrison, eds, The Soviet Defence-Industry Complex from Stalin to Khrushchev (Basingstoke: Macmillan 2000); Lennart Samuelson, Plans for Stalin's War Machine: Tukhachevskii and Military-Economic Planning, 1925-41 (Basingstoke: Macmillan, 2000); David R. Stone, Hammer and Rifle: The Militarization of the Soviet Union, 1926-1933 (Lawrence: University Press of Kansas, 2000); Olga Velikanova, 'The Myth of the "Besieged Fortress": Soviet Mass Perception in the 1920s and 1930s', Stalin-Era Research and Archives Project Working Paper no. 7 (University of Toronto: CREES, 2002); O. N. Ken, Mobilizatsionnoe planirovanie i politicheskie resheniia. Konets 1920-seredina 1930-kh gg., 1/e (St Petersburg: Evropeiskii universitet v Sankt-Peterburge, 2002) and 2/e (Moscow: OGI, 2008); and Mark Harrison, ed., Guns and Rubles: the Defense Industry in the Stalinist State (New Haven, 2008). Although owing little to the archives, see also James J. Schneider, The Structure of Strategic Revolution: Total War and the Roots of the Soviet Warfare State (Novato, CA: Presidio, 1994), and Kontorovich and Wein, 'What did the Soviet rulers maximise?'

[13] Kontorovich , and Wein, 'What did the Soviet rulers maximise?'

Thus, as Lenin had put it, if Russia was not to be dominated, she had to dominate others: 'either perish or overtake.' To dominate meant to grow, modernize the economy and the armed forces, become economically more capable than others, and translate some of the incremental economic capacity into new military power.

This view of international society was complemented by a set of simplified beliefs about domestic economics and politics. Stalin educated himself and others in the doctrine that production, not market competition or exchange, is the engine of growth. More precisely, it was the production of things that impressed him, not that of services. When he looked at the standards of modernity set by the economically more advanced countries of Western Europe and North America, what attracted his attention was tons of coal, steel, and cement, numbers of lathes, and megawatts of electrical power, and he concluded that if only Russia could produce as much per head of its population of coal, steel, and other supplies as Germany or America, then Russia would be as modern and as powerful as its rivals.

Such beliefs underpinned all the industrial policies of Stalin and the communists after Stalin. From the 1930s to the 1980s it became almost infinitely more sophisticated, yet even under Brezhnev and Gorbachev there remained recognizable traces of Stalin's view that we are stronger when we make more things.

There were political and military implications. Stalin, the little Stalins that took power in other communist countries, and their successors believed that they could not promote these intermediate goals without confiscating property, centralizing economic resources in the hands of the state, and directing and controlling the efforts of the population by decree.

They accepted that the mobilization of the economy towards state goals would inevitably create layers of people who were either embittered because they had lost their family property or social status, or unwilling because they placed private aspirations above those of the state. Because such people existed, and because the unwilling would remain even when the expropriated had died out, the security of the communist state was always under threat from within as well as from without. 'We have internal enemies. We have external enemies,' Stalin declared. 'This, comrades, must not be forgotten for a single moment.'[14]

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[14] Stalin, 'The work of the April joint plenum of the central committee and central control commission', in *Works*, vol. 11 (Moscow: Foreign Languages Publishing House: 1949), 67.

Moreover, all the ruling communist parties had had the experience of seizing power in their own countries, and knew they had been in a position to do this only because international conflict had weakened the resistance of the established order to the point where its external and internal enemies could combine to overthrow it. Were this to happen again, the communists would be the victims overthrown in their turn.[15]

This knowledge was of extreme concern to them, given their shared understanding of the nature of modern war. Their experience of two world wars told them that, in modern warfare, the ability to maintain and supply massive armies continuously in the field was decisive. Their expectations did not change significantly in the atomic era, partly because they evolved ways of thinking about how to fight and win even on a nuclear battlefield, and partly because the likely suddenness of a nuclear onset shifted the emphasis to permanent war readiness. This, in turn, depended on the 'stability of the rear,' a code phrase for a calm and obedient population continuously providing military and food supplies and logistical services to the armed forces.[16]

In the event of foreign complications, how was it possible to avoid a destabilization of the rear, bringing the strikes and insurrections that overthrew the old regimes? Here the communists everywhere found utility in identifying foreign enemies and encouraging a permanent war atmosphere. In this context they could mobilize the economy and build the large armed forces that would enable them to manage tension while avoiding actual warfare (at least with the principal adversary, which they identified as the United States). They could also build a police state, while stigmatizing opposition and resistance as the influence of foreign sponsors operating under a domestic cover.[17]

At the same time, since no one can rule without friends, the communists learned to build and manage the loyalty of the citizens. Socialist cities became hubs of power and privilege as well as of production. In the cities many millions of supporters were trained for positions of authority or were promoted directly into them. Promotion

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[15] Harrison, 'The dictator and defense', in Mark Harrison, ed., *Guns and Rubles: the Defense Industry in the Stalinist State* (New Haven, 2008), 1-30.

[16] Schneider, Structure of Strategic Revolution, 232-241.

[17] David R. Shearer, Policing Stalin's Socialism: Repression and Social Order in the Soviet Union, 1924-1953 (New Haven: Yale University Press, 2009); Paul M. Hagenloh, Stalin's Police: Public Order and Mass Repression in the USSR, 1926-1941 (Baltimore: Johns Hopkins University Press, 2009).

then granted them special access to goods and services in short supply.[18] These became the people with more to lose if the regime fell.

The security agencies watched the mood of the masses, and the communist authorities learned not to push too hard. This restraint applied first of all to the urban workers; in the 1930s, at moments when local signals of discontent began to rise, Stalin was willing if necessary to hold resources back from his pet projects and distribute them to the towns where they were needed to allay the threat of strikes or demonstrations.[19] He gave less consideration to the peasant farmers, and accepted the deaths of millions from hunger in the famine of 1932/33 that ended the first Soviet five-year plan (the same thing happened in China in the much larger famine that ended Mao Zedong's Great Leap Forward).[20]

Most Eastern European communists took somewhat more care, and in Poland and Yugoslavia they backtracked from early attempts at collectivization rather than face down peasant resistance.[21] But the loyalty of the general population remained at risk, and was always under pressure from both inside and outside. The inside factor was the relentless pressure from government goals for 'socialist construction.' The outside factor was the appeal of personal freedom and consumer sovereignty from the camp of the adversary.

Rise and fall

The great test of Stalin's model of modernization came in World War II. In twentieth century warfare the mass production of things such as guns, planes, and tanks and their delivery to the front line turned out to be a decisive factor. In World War II Soviet industry outproduced Germany and enabled the Red Army to outfight the Wehrmacht. The Soviet rear remained stable, meaning that propensities to disloyalty were kept within

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[18] Sheila Fitzpatrick, *Education and Social Mobility in the Soviet Union, 1921-1934* (Cambridge: Cambridge University Press, 1979).

[19] Paul Gregory, *The Political Economy of Stalinism: Evidence from the Soviet Secret Archives* (Cambridge: Cambridge University Press, 2004), 76-109.

[20] R. W. Davies and S. G. Wheatcroft, *The Industrialisation of Soviet Russia*, vol. 5: *The Years of Hunger: Soviet Agriculture, 1931-1933* (Basingstoke: Macmillan, 2003); Roderick MacFarquhar, *The Origins of the Cultural Revolution*, vol. 3: *The Coming Cataclysm, 1961-1966* (New York: Columbia University Press, 1997).

[21] Brus, 'Institutional change'.

tolerable limits and food was delivered to the Red Army and the war factories even when millions were starving to death.[22]

The victory of 1945 projected the Soviet Union onto the world stage. In the late 1940s, the Soviet economic system became a model for development of the economies of the Soviet-dominated sphere in Eastern Europe and then for China. But the years of undisputed Soviet hegemony were brief. First Yugoslavia, then China and Albania, and later Romania broke away to follow their own preferred routes to modernity.

All of these countries followed Stalin in benchmarking themselves on Western productivity, Western living standards, and world market prices and costs. How did Stalin's goal 'to catch up and overtake' the economically more advanced countries hold up across the twentieth century? In 1931, when the capitalist world was mired in the Great Depression, 'to catch up and overtake' may have seemed realistic. Stalin had no idea that the era of the Great Depression would turn out to be the most technologically dynamic decade of American economic history.[23] While the military, industrial, and consumer technologies of the west provided the target that the European communist regimes strained after, this target receded continuously over the rest of the century.

Figures 1 and 2 summarize the bare facts of national economic development, measured by real national income per head under communist rule. National income is one way among many of measuring progress. It tells us something about the potential of a society to produce social welfare. National income does not tell us whether a society's potential is efficiently utilized, how much has been diverted into military adventures or vanity projects, or how fairly the results are distributed. Thus, actual welfare and potential welfare may diverge. Still, we can be fairly confident that people live better and longer when average incomes are $4,000 per head per year than when they are $400 – the bare minimum that, measured in the 'international' prices of 1990, Angus Maddison considered would just sustain human life over the 25-year average span typical of traditional societies.[24]

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[22] John Barber and Mark Harrison, 'Patriotic war, 1941 to 1945', in Ronald Grigor Suny, ed., *The Cambridge History of Russia*, vol. 3, *The Twentieth Century*, pp. 217-242 (Cambridge: Cambridge University Press, 2006).

[23] Alexander J. Field, *A Great Leap Forward: 1930s Depression and U.S. Economic Growth* (New Haven: Yale University Press, 2011).

[24] E.g. Angus Maddison, *Growth and Interaction in the World Economy: The Roots of Modernity* (Washington DC: AEI Press, 2005). On the empirical relationship between well-being and income across 141

In figure 1 we see the growth and vicissitudes of the first socialist economy, that of the Soviet Union. In 1913 the Russian Empire was poorest of the great powers. Average incomes were between three and four times a subsistence minimum, and were similar to those prevailing in much of Eastern Europe. World War I was damaging, but a greater catastrophe followed in the Russian Civil War, which reduced the economy to ruins and led to a devastating famine in 1921. After the war came recovery. Under Stalin's five year plans the Soviet economy was struck by further shocks. Some were self-inflicted: the collectivization of agriculture, launched at the end of 1929, stripped the countryside of food and led to another famine in which millions died. Stalin had a million more executed in the Great Terror of 1937 to 1938. This pattern was repeated 30 years later on a larger scale by China's Great Leap Forward and Cultural Revolution under Mao Zedong. In the Soviet case, rearmament and World War II did further damage. During each of these things, the economy reeled but did not collapse; afterwards it recovered, and went on to record aggregate growth.

After World War II the Soviet Union was joined by other states under communist rule. All of these economies were relatively poor, but there were significant differences among them. Czechoslovakia was a relatively prosperous middle income country, followed by East Germany, Hungary, Poland, Bulgaria, Yugoslavia, Romania, and Albania. Lagging far behind even Albania, China was one of the poorest countries in the world with an economy barely above Maddison's 400 dollar minimum.

Figure 2 summarizes communist economic developments from 1950 against the standards of the more advanced countries. It is useful to divide the postwar period into three phases. In the first phase, which ran from 1950 to 1973, the major regions under communism more than doubled their average incomes. Both the Soviet Union and the East European countries on average somewhat caught up on the United States; the percentages are shown in Table 1. But the Western European market economies were also growing rapidly so that the gap between Eastern and Western Europe widened.

A second phase began after 1973. Economic growth slowed down across Europe, but, the deceleration was more pronounced in the communist economies, which began to fall behind America. The lag behind Western Europe lengthened further. At the same time, in contrast,

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countries and two decades, see Daniel W. Sacks, Betsey Stevenson, and Justin Wolfers, 'Subjective well-being, income, economic development and growth', NBER Working Paper no. 16441 (Cambridge, MA: National Bureau of Economic Research, 2010).

the Chinese economy accelerated and began to register relative improvement for the first time.

This contrast became sharper still in the third phase, which began around 1990. The European countries threw off communist rule and went through a period of deep economic depression. In China, communist party rule remained intact and growth accelerated further. By 2008, these contrasting fortunes had led the three regions (China, the former Soviet Union, and Central and Eastern Europe) to a fairly similar level. At the same time new gaps emerged, not visible in the figures shown, between the richer countries of Central Europe and some parts of the former Soviet Union; in 2008, for example, the citizens of Tadjikistan lived no better than Chinese people in the 1980s.

Did communism accelerate economic development where it took root? It is not easy to isolate the influence of communism, because communism was more likely to take hold in societies that were already poor and damaged by warfare and civil conflict. The story of Western Europe after 1945 was that initial conditions did not have a lasting effect. Countries with a lower starting point for average incomes, such as Greece, Italy, Portugal, and Spain, grew more quickly thereafter, and so moved gradually towards the level of the richer countries, and this was little affected by previous experience of war and civil conflict.

In this context a simple test is informative. Using data for 16 Western European countries Nicholas Crafts and Gianni Toniolo show that each 10-percentage-point shortfall in a country's income level relative to the United States in 1950 added nearly one half of a percentage point to its annual growth rate up to 1973. When they add data for 8 East European countries, they find that relationship unchanged, but with the difference that the underlying annual growth rate of East European incomes was 1.3 percentage points lower than in Western Europe.[25] In short, when communist economies grew faster than others, it was because they were on average poorer and could exploit more opportunities to catch up. Despite this they grew slower on average than they should have, and this is most likely because they were communist.

In some places, the Cold War threw up 'natural experiments' where the iron curtain fell accidentally across previously integrated, ethnolinguistically homogeneous regions. Table 2 shows three examples: East and West Germany, Finland and Estonia, and North and South Korea. None of these pairs is perfectly controlled. Estonia and Finland were

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[25] Nicholas Crafts and Gianni Toniolo, 'Aggregate growth, 1950-2005,' in Stephen Broadberry and Kevin H. O'Rourke, eds, *The Cambridge Economic History of Modern Europe*, vol. 2 (Cambridge: Cambridge University Press, 2010), 303.

distinct provinces of the Russian Empire before communism, with Estonia the poorer of the two. Korea and Germany were previously unified; North Korea was somewhat richer than the South; East Germany was at a level similar to the West. Then, these pairs had widely differing experiences of war and postwar occupation. But the evidence of Western Europe is that the economic consequences of World War II did not persist. In Korea the North lost its initial advantage under communist rule and eventually went into absolute decline. In Estonia and East Germany a lag emerged or persisted and then deepened.

These examples serve to confirm a systematic failure to catch up with the West economically under communist rule. China's comparative success looks exceptional. With one fifth of the world's population, however, China's success has global significance and requires explanation because it has lifted hundreds of millions of people out of poverty.[26]

Institutions

The communist economies had important common features. Most important was the politicization of economic life. A ruling communist party gathered up the reins of state power in a one-party state. The state monopolized the industrial and residential capital stocks, the channels of business and private communications and news and entertainment media, the networks of transport, trade, and distribution, and health and educational facilities. The ruling party's monopoly of power was institutionalized by three things. First, party structures were built in parallel with those of the state and the economy, and party cells became the eyes, ears, and mouthpieces of the party centre in every workshop, office, building site, and town hall. Second, the authority of higher levels over those below was enforced behind the scenes by a vigilant internal security agency. Third, economic decisions (in fact, all decisions of any importance and many of none) were made in secret and communicated to the public, if at all, only after the event.

In the economy, the state became the dominant purchaser of output and allocated a large part of it towards government-approved (or 'planned') projects of economic and military modernization. The rest it released to the retail market, where households could use their money wages and other revenues to compete (or stand in line) for scarce consumer goods and services. Usually the state also largely monopolized agricultural land. Even where it did not, it controlled or supervised agricultural markets and the disposition of the farmers' food surpluses to

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[26] Martin Ravallion and Shaohua Chen, 'China's (uneven) progress against poverty', *Journal of Development Economics* 82, no. 1 (2007), 1-42.

the government and households. In addition the state either monopsonized labour or strictly controlled the workers' 'outside options'. Two institutions symbolized this above all: the near prohibition on emigration from each country, even to another friendly socialist country, and, within each country, the widespread use of forced labour to punish disloyalty.

Some of this is measurable, but imperfectly so. In Table 3, the first two columns report official estimates of the speed and extent to which the economy was 'socialized' in different countries after World War II. The socialization of agricultural land shows the extent to which land was taken out of the hands of the existing peasant farmers and brought under the management of state or 'collective' enterprises. These two were distinguished mainly by the reward system for farmworkers – a wage (on state farms) or a dividend of the residual income (on collective farms) after the state had taken its share. In most countries (including China, not shown in the table), land was rapidly brought under socialized control after the communist takeover, and socialization was fairly complete by 1960. Poland and Yugoslavia were notable exceptions; there, the regime backed off in the face of peasant resistance in the early 1950s.

Differences in the extent of collectivization of agriculture did not prevent the state from monopolizing distribution. Even where farming remained in private hands, most products passed through the hands of the state before reaching the final consumer. The third column of Table 2 shows official estimates of the proportion of output in different countries that could be attributed to the 'socialist' sector in 1960. These ranged from just under two thirds in Poland to 100 per cent in the Soviet Union and its loyal follower Bulgaria.

Table 2 shows another side of the communist economic system: its propensity to overstatement.[27] All the figures for the socialization of agricultural land are inflated by inclusion of the allotments that collective farms set aside for personal use by the farmers; income in kind from these allotments helped to make up the farmers' family subsistence, and off-farm sales also contributed a significant proportion of the food available to urban consumers. In other words the table misleads by crediting the socialist sector with both the land that was farmed privately and the contribution of private farming to total output.

Without exception, all the communist-ruled economies began by adopting a similar Stalinist mould of directive planning and resource

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[27]S. G. Wheatcroft and R. W. Davies, 'The crooked mirror of Soviet economic statistics', in R. W. Davies, Mark Harrison, and S. G. Wheatcroft, eds, *The Economic Transformation of the Soviet Union, 1913-1945* (Cambridge: Cambridge University Press, 1994), 24-37.

mobilization. But the system of politicized decisions and bureaucratic allocations continually gave rise to dissatisfaction, which was felt just as keenly by officials and managers as by ordinary citizens.

The root cause of this dissatisfaction was the interposition of the government between producer and consumer. The government took upon itself to procure supplies from the state-owned (or peasant) producers at fixed prices and pass them on to the consumers. The consumers included the industrial and military users of industrial equipment and materials, employed by the state to work towards the objectives of the ruling party, as well as the privately motivated household consumers. The government set out to aggregate the expected needs of all the consumers, to distribute these needs among all the producers, and to issue contracts to them to meet the sum of requirements. When the government fixed prices it also distributed consumer and producer surpluses (or deficits) accidentally across the economy and this created natural incentives to vary production and consumption which the government then had to neutralize or override in order to enforce the distribution that matched its own preferences. To achieve this the government had to commit to confiscate the profits and make up the losses of the plants and projects in the economy, even though the government's own agents, the managers and workers, contributed directly to these by managing and working more or less diligently.[28] As a result, no factory was closed and no worker was laid off because an activity was badly managed, and no producer felt the compulsions that a competitive market provides to exert effort, economize on resources, and serve the final consumer efficiently.

Not surprisingly, these arrangements suffered in any comparison with market economies, where consumers and producers find each other competitively, interact directly in a decentralized way, and bear the main responsibility for their own decisions. Various defects quickly became widespread. Producers served the quantitative imperatives of the plan, not the qualitative needs of the consumer. To work around the plan, they engaged in ingenious simulations and frauds. To limit dependence on unreliable outsiders, ministers and managers encouraged the sourcing of supplies locally, or in-house, or on the farm; if the choice was make-versus-buy, 'make' beat 'buy' every time. Similar incentives inhibited international trade, even among socialist economies. Never slow to make a virtue out of necessity, communist rulers such as North Korea's Kim Il-sung worked out elaborate ideologies of self-reliance.

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[28] János Kornai, 'The Hungarian reform process', *Journal of Economic Literature* 24, no. 4 (1986), 1697.

These inefficiencies were costly. The costs were more manageable when the core task of socialist modernization was to copy and transplant existing technologies for the mass production of standardized goods. The costs multiplied as mass production gave way to flexible systems (sometimes called mass customization), and became profound with the information revolution and the rise of the services-based economy. The rulers' legitimacy suffered as the project of catching up and overtaking the more advanced countries economically looked more and more hopeless.

Substandard economic growth did not, however, prevent the Soviet Union from building strategic military parity with the United States. Calamitous economic decisions did not cause Stalin, Mao, Castro, or Kim Il-sung to give up power. This lends support to the view that the revealed preference of communist rulers was to place internal and external security above economic modernization.

Reforms

In the perspective of reform-minded communists, economic reforms were intended to address two gaps. First was the gap between socialist and capitalist achievements, which was visibly failing to close. Second was the gap between the actual achievements and true potential of the socialist economy, which was thought to be widening. Because the second gap was intrinsically unknowable, it was generally measured by the first. The result was that, even though communist leaders after Stalin tended to be have a more technocratic outlook, and were more sceptical of the scope for political mobilization, they continued to believe right up to the end that, if only they could get the institutions right, they could bring about a new great leap forward in the economy.

The mixed successes of Western European countries in catching up with the United States as the global technological leader suggest that the necessary institutional reforms should be thought of as a continuous process, not a one-off event. When a country is far from the technological frontier, its growth is aided by institutions that implement technologies developed elsewhere. Large gains may be realized simply by moving workers from the countryside to factories and towns. As the economy moves towards the frontier, however, the emphasis must shift gradually away from implementation to autonomous innovation, which can be fostered by opening product markets to more stringent competition and

raising the quality of education, for example.[29] As the frontier recedes, and because successive general-purpose technologies impose different institutional requirements, institutional adaptation must be continuous. In turn, this process continually disrupts established interests, throwing up the risk that at some point they may succeed in halting the process of reform, causing economic growth to falter.[30]

The core issue of socialist economic reform was the possibility of nesting the advantages of decentralized markets within the structures of socialist state regulation.[31] It was sometimes thought that centralized planning had worked well in the early years of so-called extensive growth, and needed reform only after industrial modernization. Public discussion of the need for reform waited for the death of Stalin and a new generation of more freethinking economists. The Russian archives have shown, however, that the need for reform became obvious to insiders when the first Soviet five-year plan was still under way. As early as 1931 Stalin's industry chief Sergo Ordzhonikidze had become a keen advocate of decentralizing intra-industry transactions to plant managers and letting them keep profits and bear losses.[32] He was opposed from above and below. In the economy, industrial officials hoarded supplies and exaggerated demands; in other words, they continued to play the bureaucratic game, not the market game. In the Kremlin, Stalin and Molotov did not wish to give up detailed oversight of the allocation of resources. At this time there was no reform.

Because this did not solve any problems, the issue of reform remained on the table in the postwar period. There were many variants but a shared theme was the need to replace physical controls on producers by financial controls, making producers responsible for profits and losses,

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[29] Philippe Aghion and Peter Howitt, 'Appropriate growth theory: a unifying framework', *Journal of the European Economic Association* 4, nos 2-3 (2006), 269-314.

[30] Nicholas Crafts and Marco Magnani, 'The golden age and the second globalization in Italy', in Gianni Toniolo, ed., *The Oxford Handbook of the Italian Economy, 1861-2011* (Oxford: Oxford University Press, forthcoming).

[31] Paul G. Hare, 'Economic reform in eastern Europe', *Journal of Economic Surveys* 1, no. 1 (1987), 25-59.

[32] R. W. Davies, The Industrialisation of Soviet Russia, vol. 4, Crisis and Progress in the Soviet Economy, 1931-1933 (Basingstoke: Macmillan, 1996), 11-18, 201-28, 265-70, 345-6.

increasing the influence of consumers, and so motivating the main actors in the economy towards greater efficiency.

Underlying reformist proposals was the idea of replacing the Stalinist model of the socialist economy, directed from the centre by a totalitarian dictator, with a reform model that shared power more widely amongst a limited number of stakeholders, still within the overall framework of a one-party state. In the reform model the government would control the allocation of resources in very broad terms such as the overall distribution of public spending and rate of growth of output, leaving room for other stakeholders, such as experts, managers, work teams and collectives, and regional and municipal authorities, to negotiate the detail in alignment with their own aspirations and information. At the same time the stakeholders would not be equal. The government would remain the senior stakeholder. The communist party would still have the right to regulate all the stakeholders' conduct and would retain the power, if necessary, to confiscate the junior stakes.

The first such reform experiment, and one of the most durable, took place in Yugoslavia in 1948. A multi-ethnic state, Yugoslavia pioneered national power-sharing among the federal republics, and market socialism without detailed planning from the centre. The basic unit of the Yugoslav economy became the 'self-managed' firm under a party-guided workers' council.

Because Stalin rejected this innovation the immediate result was a schism within the communist camp, but after Stalin's death other countries began to move in the Yugoslav direction. In 1950s Poland and Hungary, the main thrust of reform was towards power-sharing in the state between political and expert councils, national and local interests, the representatives of industrial and social organizations, and so on. Such designs commonly drew a link from power-sharing in the government to power sharing in the economy between workers and managers through workplace councils, with the socialist enterprise becoming the basic unit of non-government stakeholdings. Notably, power sharing on these lines was often relabelled as 'socialist democracy'. In Poland and Hungary these ideas were stamped out after the uprisings of 1956. The Czechoslovak reform movement of 1968 revived it briefly, but this too ended in Soviet military intervention and repression.

In other countries and periods a more top-down or technocratic concept of stakeholding proved acceptable. Under Nikita Khrushchev between 1957 and 1965 the Soviet Union experimented with devolution of some central planning functions to the regional level, but the experiment was poorly designed, met with resistance, and was then reversed. Other reforms implemented first in East Germany and then copied in the Soviet Union put greater emphasis on new functions of the

socialist enterprise. Power sharing would extend to managers, but not to workers' councils, however guided by the party. One aim of enhancing the prerogatives of managers in relation to the workforce was to break up the pooling of risks and rewards within the enterprise, which discouraged innovation and exceptional effort. Managers would be motivated to boost profitability by sacking shirkers rather than to boost output by hiring additional labour. Workers would be motivated to work harder and seek higher incomes as productivity rose.

While some aspects of socialist economic reform were clearly designed to mimic the discipline of a competitive market, the legacy of the totalitarian model was unfavourable to this. One aspect of this legacy was an industrial structure dominated by relatively small numbers of large, specialized state-owned enterprises that faced little competition and, even in the presence of competition, would have been 'too big to fail'. Adding to this, socialist technocrats of the 1950s emphasized the failure of the socialist economy to produce diversified multi-divisional corporations with the large scale and scope to compete on world markets against leading American and European firms. First Poland and East Germany, and then the Soviet Union, Czechoslovakia, and Hungary sponsored the merger of state-owned multi-plant combines to fill this gap.[33] Reformers in Czechoslovakia in 1968 and in Hungary in the 1980s recognized that giant state-owned and politically connected corporations would seriously undermine the competitive design of a decentralized socialist market economy.

The country that went furthest towards admitting new stakeholders into the socialist economy was China. A first step was the emergence of 'regionally decentralized authoritarianism' under Mao Zedong's Great Leap Forward.[34] It coincided with – and formally resembled – the Soviet regional decentralization of 1957, but proved much more durable and effective. Beyond political reasons, China's 30 provinces, with average populations of 20 million people at that time, were larger, more diversified, and more self-sufficient than the Soviet Union's 150 provinces, averaging little more than one million each. [35] In the first year of the Great Leap Forward, Beijing handed more than half of its budget

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[33] Kornai, *The Socialist System*, 399-403.

[34] Chenggang Xu, 'The fundamental institutions of China's reforms and development', *Journal of Economic Literature* 49, no. 4 (2011), 1076-1151.

[35] Andrei Markevich and Ekaterina Zhuravskaya, 'M-form hierarchy with poorly-diversified divisions: A case of Khrushchev's reform in Soviet Russia', *Journal of Public Economics* 95, 11–12 (2011), 1550-1560.

revenues down to the provinces.[36] While Mao remained the dictator, and the communist party retained central control of local appointment, provincial officials were effectively set to compete against each other. In due course regional decentralization helped to produce a capacity for institutional innovation, because provinces began to compete in trying out innovative reforms.

While Mao remained in charge there was little payoff in terms of economic growth or modernization. Two decades of slow growth were punctuated by setbacks caused by radical political mobilizations against those that Mao defined as China's internal enemies. Following his death in 1976, wider reforms were launched under the 'four modernizations' (of agriculture, industry, science, and defence) with a transition from collective agriculture back to family farming under the 'household responsibility system'. The reform process deepened in the 1980s with the expansion of locally owned 'township and village enterprises' in the 1980s, and in the 1990s with sweeping privatization of state-owned industry. While maintaining currency and capital controls, China also became more integrated into global trade and financial markets than any other communist-ruled country.

This story suggests that, while still far from the world's technological frontier, China is the only communist-ruled country to have found a consistent path of sustained reform and to have developed a capacity for institutional innovation. China's success has been driven by its system of 'regionally decentralized authoritarianism'. When a similar system was tried in the Soviet Union, with more territorial fragmentation and less freedom to experiment, regional rivalry turned out to carry high costs and few if any benefits. One might then ask why regional rivalry was not more productive across Eastern Europe at the national level, since each East European country had considerable freedom to experiment with national economic models and each national economy resembled a Chinese province in size and diversity more closely than a Soviet province. Among the reasons for European failure might be listed the greater job security and tenure of each national leader, the greater forgiveness for poor economic performance compared with political deviation, and the fact that a more successful national economy could not attract labour or capital across closed international borders.

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[36] Nicholas R. Lardy, 'Economic planning in the People's Republic of China: central-provincial fiscal relations', in U.S. Congress, Joint Economic Committee, *China: A Reassessment of the Economy* (Washington, D.C.: U.S. Government Printing Office, 1975), 94-115.

Other outcomes

The overall patterns arising from communist economic modernization in Europe can be summarized as follows. The economy was kept in a state of permanent mobilization, which meant that output and employment were pushed above the equilibrium level of a market economy. Participation rates for women in every age group were higher than in most market economies, and this was particularly true of women past child bearing age.[37] Continuous full employment was not an unmixed blessing, however, because there was no 'creative destruction' of loss making activities.

Resources available for household consumption were squeezed because the communist-ruled economies typically saved between one quarter and one third of their national income each year – a much higher rate than in most market economies. They also allocated between one third and one half of investment to building industrial facilities; again this proportion was much higher than in most market economies. A much smaller proportion of industrial capacity was devoted to consumer goods, the rest being set aside for producing industrial materials, equipment, and armaments.[38]

When communist governments talked about 'building socialism' they often meant it literally. They put great emphasis and huge resources into capital projects and infrastructure: new power stations, metallurgical and engineering factories, railways and canals, residential micro-regions, automotive technologies, and space satellites.[39] Industrialization and urbanization were physically the same process; reflecting this legacy, industrial land today accounts for 32 and 44 per cent of the built up areas of Moscow and St Petersburg respectively, and around 25 per cent of

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[37] Kornai, The Socialist System, 207.

[38] Kornai, *The Socialist System*, 166, 175; Ljubo Sirc, *Economic Devolution in Eastern Europe* (London: Longmans, Green & Co., 1969), 32.

[39] J. N. Westwood, *A History of Russian Railways* (London: Allen & Unwin, 1964); Stephen Kotkin, *Magnetic Mountain: Stalinism as a Civilization* (Berkeley: University of. California Press, 1995). Scott W. Palmer, *Dictatorship of the Air: Aviation Culture and the Fate of Modern Russia* (Cambridge: Cambridge University Press, 2006); Lewis H. Siegelbaum, *Cars for Comrades: The Life of the Soviet Automobile* (Ithaca: Cornell University Press, 2007); Asif A. Siddiqi, *The Red Rockets' Glare: Spaceflight and the Soviet Imagination, 1857-1957* (Cambridge: Cambridge University Press, 2010); Mark. B. Smith, *Property of Communists: The Urban Housing Program from Stalin to Khrushchev* (DeKalb: Northern Illinois University Press, 2010).

large cities in Eastern Europe and China, compared with 4 to 10 per cent for big cities in market economies.[40] These industrial cities symbolized the new socialist modernity. At the same time the productivity of these investments was generally lower than might be expected of the same resources in a market economy, and much was wasted in the form of infrastructure projects that were finished late or never, transport links that turned out not to be needed, and prestige ventures that contributed only to the leaders' vanity.[41]

The communist-ruled economies were heavily militarized. The burden of a large military establishment and extensive military industries on the economy was always hard to capture precisely, not least because it was secret. The Soviet state budget for 1980 admitted to 17.1 billion rubles of military spending, or less than 4 per cent of the national material product; after the collapse of the Soviet state, the true figure was estimated retrospectively at 48.9 billion rubles, or more than 10 per cent. Authoritative Western estimates gave figures that were twice that.[42] We now know that the various channels of funding for the military budget had been hidden from oversight for so long that even the budgetary authorities had no idea of the true figure.[43]

Increases in production relied upon increases in capital and labour more than on technological improvement or efficient reorganization. Production drew freely on the resources of natural environment. In 1985, for example, sulphur oxide emissions per head of the population jumped by an order of magnitude as the observer crossed the line from capitalist

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[40] Alain Bertaud, 'The spatial structures of Central and Eastern European cities', in Sasha Tsenkova and Zorica Nedović-Budić, eds, *The Urban Mosaic of Post-Socialist Europe*, 91-110 (Heidelberg: Physica-Verlag, 2006); Alain Bertaud, 'Urbanization in China: land use efficiency issues', Working Paper (2007) at alain-bertaud.com.

[41] Kornai, *The Socialist System*, 167-168; William Easterly, and Stanley D. Fischer, 'The Soviet economic decline', *World Bank Economic Review* 9, no. 3 (1995), 341-371.

[42] Noel E. Firth and James H. Noren, *Soviet Defense Spending: a History of CIA Estimates, 1950-1990* (College Station, TX: Texas A & M University Press, 1998); Iu. D. Masliukov and E. S. Glubokov, 'Planirovanie i finansirovanie voennoi promyshlennosti v SSSR', in A. V. Minaev, ed., *Sovetskaia voennaia moshch' ot Stalina do Gorbacheva* (Moscow: Voennyi parad, 1999), 82-129.

[43] Mark Harrison, 'Secrets, lies, and half truths: the decision to disclose Soviet defense outlays', PERSA Working Paper no. 55 (2008), University of Warwick, Department of Economics, at http://go.warwick.ac.uk/persa.

to communist Europe, although output per head was much lower on the communist side.[44] Measures of environmental quality were censored and the voice of concerned citizens was suppressed.

Many people gained from socialist modernization. The government invested heavily in science, technology, education, and health. It directly employed and promoted millions of people. Government officials, workers in important factories, residents of important towns, and their families generally had privileged access to goods and services. This included notionally public services such as higher education and high-quality health care. The communist states tended to have a good record of extending basic facilities to ordinary citizens although here too statistics overstate the case. Cuba, which is poor and socialist, reports a rate of mortality of infants under one year similar to that of the United States, which is rich and capitalist.[45] In fact, American hospitals have more inclusive definitions of live birth, bring more problematic pregnancies to a live birth, and so would outperform Cuba on properly standardized performance measures.[46]

Outside the circle of privilege, consumers had to stand in line. Losses arising from waiting time and forced substitution substantially diminished the real worth of goods nominally available.[47] At different times almost anything could be in short supply, from housing and automobiles to sausages and sanitary towels. In the 1980s the housing waiting list varied from 3-4 years in East Germany to 15-30 years in Poland; that for a Lada automobile varied from 3-4 years in Czechoslovakia to 10-12 years in Bulgaria.[48] For many ordinary citizens of the Soviet bloc, to have access to the personal freedom and privacy of motor car travel became a litmus test of socialist modernization. A family's acquisition of an automobile was a landmark event, but with it came new anxieties about finding fuel and parts: 'In Russia they say that

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[44] Kornai, The Socialist System, 179.

[45] United Nations, Department of Economic and Social Affairs, Population Division, Population Estimates and Projections Section, World Population Prospects, at http://esa.un.org/unpd/wpp.

[46] Scott Atlas, In Excellent Health: Setting the Record Straight on America's Health Care (Stanford, CA: Hoover Institution, 2012).

[47], Irwin L. Collier, 'The "Welfare Standard" and Soviet Consumers', *Comparative Economic Studies* 47, no. 2 (2003), 333-45.

[48] Kornai, The Socialist System, 234

owning a car brings joy twice in an owner's life – when it is bought and when it is sold. In between there is only torture.'[49]

Communism in the European style appeared to offer the dream of modernized consumption, but without consumer sovereignty. In practice, consumers were continually threatened with relapse into rationing and the 'crisis mode of consumption' of communism's darkest years.[50]

The China Deal

With the important exception of China, the experience of reform communism was unsuccessful. The starting point was dissatisfaction with the results of the Stalinist command economy, in which both the party and the people gradually lost confidence. Officially sanctioned reforms were supposed to be the solution. In practice, power sharing and the delegation of authority to managers had both intended and unintended consequences. They were intended to put more pressure on managers and workers to exert effort, but this often led to unrest which immediately switched the traffic lights to red. Other unintended consequences included unpredictable changes in the pattern of demand and the distribution of income, which also led to dissatisfaction. Except in China, where the leaders managed the discontent and persisted with reforms, ruling parties tended to grab power back from other potential stakeholders and reverse the reforms, to the detriment of their own credibility. [51] The result was a progressive loss of faith in the capacity of the government to innovate solutions, which came on top of the original loss of faith in the traditional model.

A by-product was increased toleration of sideline economic activity, including the resort to unofficial markets to reallocate state products in ways not prescribed in government plans. The American economist James

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[49] Cited by Siegelbaum, *Cars for Comrades*, 243-4.

[50] Elena Osokina, Our Daily Bread: Socialist Distribution and the Art of Survival in Stalin's Russia, 1927-1941 (Armonk, NY: M.E. Sharpe, 2001); Julie Hessler, A Social History of Soviet Trade: Trade Policy, Retail Practices, and Consumption, 1917-1953 (Princeton, NJ: Princeton University Press, 2004).

[51] Vladimir Kontorovich, 'Lessons of the 1965 Soviet economic reform', *Soviet Studies* 40, no. 2 (1988), 308-316; Gertrude E. Schroeder, 'The Soviet economy on a treadmill of "reforms"', in U.S. Congress, Joint Economic Committee, *Soviet Economy in a Time of Change*, vol. 1 (Washington, D.C.: U.S. Government Printing Office), 312-340; Mark Harrison, 'Coercion, compliance, and the collapse of the Soviet command economy', *Economic History Review* 55 no. 3 (2002), 397-433.

R. Millar called this the 'Little Deal', after the original 'Big Deal', Vera Dunham's term for Stalin's pact with the new Soviet labour aristocracy.[52] Under the Big Deal, Soviet workers that worked hard, gained experience, and upgraded their skills were promised the rudiments of a middle class lifestyle. The Little Deal was Brezhnev's pact with workers and managers to permit private trading and the private use of state-owned facilities on the side as long as it was discreet and did not interfere with major important government priorities.

The sideline economy was a double-edged instrument.[53] The activities of thieves and private traders helped households to secure the commodities they desired. Trading on the side could help factories obtain the materials and supplies necessary to fulfil their plans. But officials and managers were corrupted, and work discipline, public morality, and the legitimacy of state property were undermined.

In short, the failure of the communist states of Eastern Europe to catch up and overtake the West is easily explained. Their polities were closed and authoritarian. Their economies were overcentralized and unreformable. Corruption got out of hand. In the endgame, insider interests 'stole the state'.[54]

In contrast, China has grown rapidly over three decades, significantly closing the gap with more advanced countries and levering hundreds of millions of people out of poverty. The state has not been pulled apart, and the government has not had to backtrack on reform. Yet the Chinese state remains authoritarian, secretive, and corrupt. Economic life is still politicized. The essential ingredients of a decentralized market economy – separation of the economy from politics, clear property rights, free and enforceable contracts, and the rule of law – are still missing.

How has China done squared the circle? After the death of Mao, China's leaders felt their way, by accident as much as by design, to a new deal within the party and society. More radical than Stalin's Big Deal, more ambitious than Brezhnev's Little Deal, the China Deal transformed the sideline economy into a legitimate (but not law-governed) private

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[52] James R. Millar, 'The Little Deal: Brezhnev's contribution to acquisitive socialism', *Slavic Review* 44, no. 4 (1985), 694-706.

[53] Gregory Grossman, 'Notes on the illegal private economy and corruption', in US Congress, Joint Economic Committee, *Soviet Economy in a Time of Change*, vol. 1 (Washington, D.C.: U.S. Government Printing Office (1979), 834-855.

[54] Steven L. Solnick, *Stealing the State: Control and Collapse in Soviet Institutions* (Cambridge, MA: Harvard University Press, I998).

sector, integrated into the system of regionally decentralized authoritarianism.

The deal was made first of all with the provincial leaders; these were given new ways to contend with each other for advancement by promoting competing regional models of economic enterprise, always provided these did not challenge party rule. Then, China's entrepreneurs were offered the chance to accumulate personal wealth by competing with each other to serve the consumer directly in regional markets. [55] But the right to enter the market was restricted to those whose absolute loyalty was assured by political connections. Without some external discipline, restricted access would create large rents and threaten to destabilize the distribution of income. One source of discipline was the competition among regional models, which forced China's new elite to accumulate rather than consume. In Chenggang Xu's opinion, without fierce rivalry among provincial leaders the Chinese government and economy would collapse.[56] The other source of discipline was the world market, where Chinese firms were also made to compete.

Finally, the China Deal embraced the poor. Hundreds of millions of people would be allowed to migrate to successful regions and to rise out of abject poverty, provided this did not lead to pressure for mass political rights.

The China Deal radically extended the stakeholder concept of a communist society. New stakes were granted in unprecedented number; at the same time, the government retained the senior stake by maintaining a large public sector and withholding secure private property rights. Competition among entrepreneurs harnessed the private sector to the objectives of national economic modernization. Rivalry among provincial leaders broke resistance to continuous policy reform. Thus, China's modernization has proceeded without universal market freedoms, third-party enforced property rights, or the subjection of the rulers to the rule of law.

In 2005 for the first time China's private sector exceeded the state sector by value of output. China's private sector has proved consistently more innovative than its state-owned enterprises and (except in the case

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[55] Yasheng Huang summed up the resulting combination of competing regional models and strong regional border effects as 'one country, thirty-one economies', in *Selling China: Foreign Direct Investment During the Reform Era* (Cambridge, England: Cambridge University Press, 2003), p. 141.

[56] Xu, 'Fundamental institutions', 1141.

of state monopolies) more profitable.[57] Private firms have made higher profits despite the fact that state-owned enterprises have benefited from nearly exclusive access to bank credit and a valuable credit subsidy arising from implicit government guarantees. The profit gap implies, however, that China still has too much productive capital locked up in the state sector. Moreover, there is a question mark over whether China's private firms can continue to exploit the opportunities of the information revolution, given oppressive and corrupt regulation, the relatively small size of most private firms, and shortfalls in China's human capital.[58]

China's experience with political modernization suggests circumstances in which the ruling party's desire for 'stability of the rear' might hinder continued policy reform. In 1989, faced with the overthrow of communism in Eastern Europe, the Chinese communist party decisively rejected the so-called 'fifth' modernization, democracy. China's rulers remain above the law. As Xu has pointed out, in China 'regions have no inherent power, and regional power is granted by the central authorities'.[59] Whatever has been granted can be confiscated. The same can be said of the personal rights of all China's junior stakeholders, including private proprietors.

Can China's modernization continue beyond the 'middle income trap'? By the 1970s most countries of Latin America and the Middle East had risen from low to middle income status, as China has now done, but none went on to join the club of high income countries.[60] As we have discussed, movement towards the global frontier requires policy reform to continue, and this must continually infringe on established economic and political interests. The chance that at some point defensive coalitions will form in China that have the power to block further change, and thus halt the process of catching up, remains high.

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[57] The World Bank, *China 2030: Building a Modern, Harmonious, and Creative High-Income Society* (Washington, DC: The World Bank and Development Research Center of the State Council, the People's Republic of China, 2012), 111.

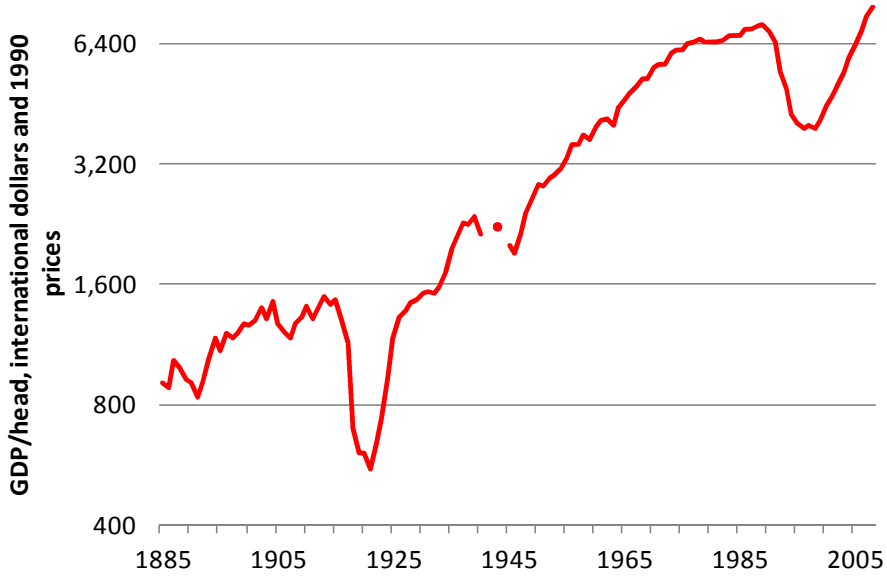
[58] China's issues today have parallels with Italy's in the recent past; on the latter see Crafts and Magnani, 'The golden age'.

[59] Xu, 'Fundamental institutions', 1087.

[60] The World Bank, *China 2030*, 12.

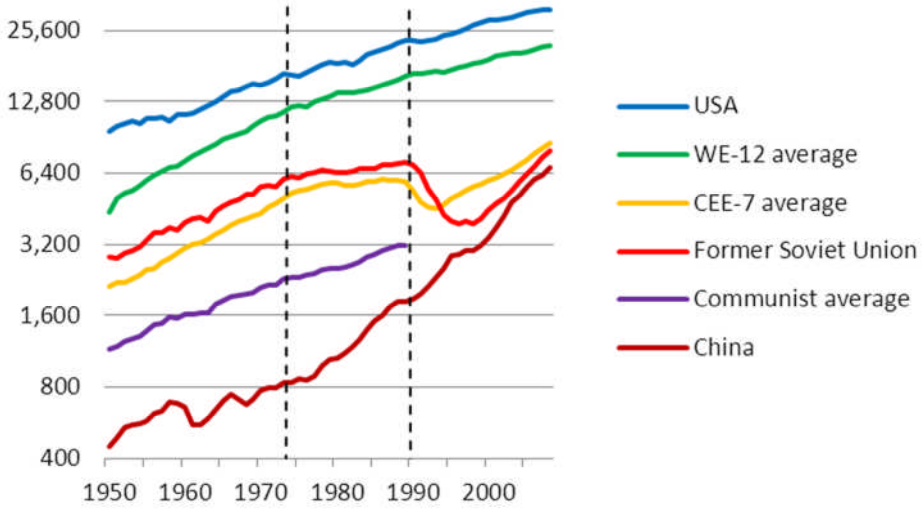
Figures

Figure 1. Real national income per head, Russia and USSR, from 1885 to 2008



Source: Andrei Markevich and Mark Harrison, 'Great War, Civil War, and Recovery: Russia's National Income, 1913 to 1928', *Journal of Economic History* 71, no. 3 (2011), p. 693.
Notes: All figures are measured in international dollars and 1990 prices.

Figure 2. Real national income per head: selected countries and regions from 1950 to 2008, at 1990 prices and international dollars



Source: Data by Angus Maddison at www.ggdc.net/maddison.
Notes: All figures are measured in international dollars and 1990 prices. The two vertical lines are drawn at 1974 and 1990. With a logarithmic vertical axis, per cent gaps are proportional to vertical distance and per cent growth rates are proportional to slopes. The West European 12 are Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Sweden, Switzerland, and the United Kingdom. The Central and Eastern Europe 7 are Albania, Bulgaria, Czechoslovakia, Hungary, Poland, Romania, and Yugoslavia. The 'communist average' covers the former Soviet Union, China, the CEE-7, and North Korea from 1950 to 1989.

Tables

Table 1. 'Overtake and outstrip the advanced countries economically': real national income per head of selected communist countries and regions in selected years, per cent of market-economy countries and regions

	1950-54	1970-74	1983-87	2003-07
Soviet Union, per cent of:				
USA	28.8	36.6	33.1	...
Western European 12	57.1	51.7	46.3	...
Central and Eastern European 7, per cent of:				
USA	22.0	30.1	28.7	...
Western European 12	43.5	42.5	40.2	...
China, per cent of:				
USA	5.1	5.1	7.3	18.4
Western European 12	10.0	7.2	10.2	26.7

Source: Data by Angus Maddison at www.ggdc.net/maddison.

Notes: Figures given are five-year averages. All figures are measured in international dollars and 1990 prices. The West European 12 are Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Sweden, Switzerland, and the United Kingdom. The Central and Eastern Europe 7 are Albania, Bulgaria, Czechoslovakia, Hungary, Poland, Romania, and Yugoslavia.

Table 2. Three regions divided by the Cold War: real national income per head, selected years

	1936	1950	1973	1990	2008
West Germany	4,570	4,280	13,147	18,691	…
East Germany	4,781	2,796	7,695	5,101	…
Per cent of West	105%	65%	59%	27%	…
Finland	3,729	4,253	11,085	16,866	24,344
Estonia*	…	…	8,657	10,820	19,951
Per cent of Finland	…	…	78%	64%	82%
South Korea	1,437	854	2,824	8,704	19,614
North Korea**	…	854	2,824	2,841	1,122
Per cent of South	…	100%	100%	33%	6%

Sources: Data by Angus Maddison at www.ggdc.net/maddison, except Germany, East and West, within 1990 frontiers from Angus Maddison, *The World Economy: A Millennial Perspective* (Paris: OECD), p. 178.

Notes: All figures are measured in international dollars and 1990 prices.

* Angus Maddison, *The World Economy*, pp. 208-209, noted that 'In 1940 North Korean GDP per capita was nearly 50 per cent higher than in the South …so it seems reasonable to suppose that 1950 North Korean per capita GDP was at least as high … I have assumed that per capita GDP was the same in the North as in the South from 1950 to 1973, with no progress to 1991. Thereafter, North Korea stopped receiving Soviet aid, and its per capita income has fallen a great deal.'

** Timo Myllyntaus, 'Standard of living in Estonia and Finland in the 1930s', in *Proceedings of the Estonian Academy of Sciences, Humanities and Social Sciences* 41, no.3 (1992), pp. 184-191, compared nominal wages, food prices, and the diffusion of consumer durables in Finland and Estonia between the wars. Without endorsing any particular figure, he concluded that 'at the end of the interwar period, the level of real earnings per capita was higher in Finland than in Estonia. The difference was then not so huge as it is nowadays [circa 1990], but presumably it was so great that contemporaries could not avoid noticing it.'

Table 3. Degrees of socialization: selected countries, 1953 and 1960, and per cent

	Per cent of agricultural land		Per cent of national income produced
	1953	1960	1960
Soviet Union	94	97	100
Bulgaria	56	91	100
Czechoslovakia	54	87	99
Hungary	39	77	91
Albania	13	85	88
East Germany	5	90	85
Romania	21	84	83
Yugoslavia	37	10	73
Poland	19	13	63

Sources: Brus, 'Institutional change', 9, 80, 83, except USSR from TsSU SSSR, Narodnoe khoziaistvo SSSR v 1960 godu. Statisticheskii ezhegodnik (Gosstatizdat: Moscow, 1960), 82, and Narodnoe khoziaistvo SSSR. 1922-1972. Iubileinyi statisticheskii ezhegodnik (Statistika: Moscow, 1972), 240. China is not shown but, according to Carl Riskin, China's Political Economy: The Quest for Development since 1949 (Oxford: Oxford University Press, 1987), 86, at the end of 1953, 39 per cent of Chinese peasant households were enlisted in mutual aid teams, and 99 per cent in rural people's communes by the end of 1958.

Select Bibliography

Brus, Włodzimerz, 'Institutional change within a planned economy', in M. C. Kaser, ed., *The Economic History of Eastern Europe, 1919-1975*, vol. 3 (Oxford: Clarendon Press. 1986).

Davies, R. W., 'The "modernization" of the Soviet economy in the inter-war years', in Markku Kangaspuro and Jeremy Smith, eds, *Modernisation in Russia since 1900*, 71-83 (Helsinki: Finnish Literature Society, 2006).

Gregory, Paul R., *The Political Economy of Stalinism: Evidence from the Soviet Secret Archives* (Cambridge: Cambridge University Press, 2004).

Gregory, Paul R., and Robert C. Stuart, *Comparing Economic Systems in the Twenty-First Century* (Mason, OH: South-Western Cengage, 2003).

Hare, Paul G., 'Economic reform in eastern Europe', *Journal of Economic Surveys* 1, no. 1 (1987), 25-59.

Kornai, János, 'The Hungarian reform process', *Journal of Economic Literature* 24, no. 4 (1986), 1687-1737.

Kornai, János, *The Socialist System: the Political Economy of Communism* (Oxford: Blackwell, 1992).

Maddison, Angus, *The World Economy: A Millennial Perspective* (Paris: OECD).

Stalin, J. V., 'The tasks of business executives,' in *Works*, vol. 13 (Moscow: Foreign Languages Publishing House, 1949), 31-44.

Xu, Chenggang, 'The fundamental institutions of China's reforms and development', *Journal of Economic Literature* 49, no. 4 (2011), 1076-1151.