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Vice President Richard Nixon boasted about American color television to Nikita Khrushchev, the first secretary of the Communist Party of the Soviet Union, during their famous "kitchen debate" of July 1959, but the early Cold War was fought in black and white. The issues were monochrome and so were the images: stacks of Marshall Plan flour on an Italian wharf, C-47s approaching Tempelhof airport over the ruins of Berlin during the blockade, films of blast furnaces with white sparks emitted against a night sky, and the photos of the American vice president and the Soviet first secretary debating the path to household affluence in a Moscow exposition hall. At stake in that model American kitchen was consumer affluence or collective prowess, suburban dreams of the Eisenhower years versus Khrushchev's cocky promise from 1956, "We will bury you," rendered plausible a year later by the trail of sputnik in the night sky.¹

Still, when Nixon and Khrushchev debated their societies' respective achievements, they agreed that peaceful competition was preferable to ruthless military or political confrontation. Peaceful competition meant primarily economic competition: the rivalry between capitalism and state socialism. Divergent economic systems should not be so menacing that they compelled a strategic arms race; the two sides had not organized extensive alliances just to defend private or state ownership of capital, the market or the plan. Nonetheless, distinctions between socialism and capitalism seemed fundamental to ideological identity and to bloc cohesion in the 1950s, as they would again in the 1980s when the state socialist economies showed evident signs of decomposition. Neither were the distinctions just a source of

I For a transcript of the kitchen debate, see www.cnn.com/SPECIALS/cold.war/episodes/14/documents/debate/; "We will bury you" – perhaps too harsh in English translation – was uttered to Western ambassadors in November 1956, reported *Time*, November 26, 1956. In this chapter I do not cite from archival sources directly; references can be found in the essays and books listed.

ideological identity, no more than the stake of economic rivalry was just household appliances. The two economic systems had to provide the resources to sustain the military confrontation and subsidize allies. National power depended on economic achievement – a point the American vice president recognized when he conceded that the Soviets still led in getting payloads into orbit.

Economics, therefore, was crucial to the history of the Cold War. On the Soviet side, domination meant constructing an economic bloc of centrally planned economies that was designed to resist the seduction of the Marshall Plan and a reemerging West European capitalism. In the case of the United States, leadership meant helping to modernize its allies' economies and to integrate as much as practical the residues of older imperial economic zones - German and British above all - into a sphere of trade and exchange that posed no barrier to United States economic doctrines or ambition. National Socialist Germany's economic domain had been shattered with Hitler's defeat, but as much of it as feasible had to be reintegrated into the West. The Cold War's division of Europe would facilitate the transformation of West German industry from a threatening prewar and wartime rival system into an a major asset of an integrated Atlantic economy. With respect to the British system of imperial trade preferences, Washington faced a different choice. United Kingdom finances were strained by the great debts London had accumulated to fight the war, including those owed to its Asian dependencies, its "white dominions," and to Washington. To what degree the United States should compel Britain to liquidate its remaining international assets or help keep them intact for the sake of postwar partnership was an open issue, to be repeatedly debated in the administration and Congress.

American readiness to replace German and British international economic domination raised implicitly the parallel question of future American leadership in Asia. Washington had been drawn into the Pacific war by its unwillingness to surrender China to Japanese imperial control. With the defeat of Tokyo, Washington was potentially in a position to assume regional economic leadership in East Asia. US policymakers were concerned (as were Japanese conservatives) about the possible rise of a Marxist Left in defeated Japan and would soon seek to limit economic restructuring, just as they wanted to buttress the Chinese Nationalist regime against Mao's movement in North China. But whereas a thorough integration of Japan and South Korea was to be achieved, any voice in postwar China was lost with the advent of the Communist regime.

Even if Washington policymakers did not envisage the expansion of American economic reach in imperial terms, the exhaustion of earlier economic hegemons – regional in the instance of Germany and Japan, transoceanic in Britain's case – militated for a reorganization of global economic relations, which subordinated allies as well as opposing the emerging Soviet adversary. Believing the alternative to be the extension of Communist power, a bipartisan coalition in Washington repeatedly took on commitments from 1945 into the 1960s that consolidated a territorially extensive, though hardly universal, zone of trade, payments, and investments conducive to liberal capitalism. All these pressures – ideological, technological, and geopolitical – interacted to shape the economy of the Cold War, and this chapter will follow them in turn.

Ideas

As Nixon and Khrushchev agreed in the Moscow model kitchen, the Cold War invoked a competition over models of economic organization. The Soviets stressed the virtues of public ownership and central planning; Americans the capacity of the market, private ownership, and entrepreneurial control. Still, the Communists' economic program varied greatly over time. Ideology remained important, but its interpretation was malleable. Over the longer term, Communists professed belief that after successive crises of capitalism their vanguard party would seize authoritative power, allegedly on behalf of the industrial working class, and transfer economic assets from private to public control. Social democratic reformist or "revisionist" versions of Marxism in the Soviet Union and Western Europe might advocate incremental economic change, but earned only contempt from Lenin after 1914 and then from Stalin as he consolidated power in the late 1920s. By the end of that decade Stalin and his allies unleashed a campaign against peasant smallholding agriculture, embarked on collectivization, and introduced the first of many Five-Year Plans. The rise of Fascism and the threat of Nazi expansion led Stalin to shift course anew in the mid-1930s and seek broad alliances with the social democrats and even non-Marxian liberal democrats. From the Kremlin decisions of 1935 to encourage popular fronts until the formation of the Cominform in 1947, the Soviets soft-pedaled their earlier aspirations for single-party dictatorship and collectivization wherever it might be opportune. Instead, the Comintern, itself dissolved in 1943, called merely for "progressive" coalitions that would defeat Fascism and institute "people's democracies" in the countries liberated from the Germans. The ultimate form of the economy

was adjourned as an issue for the future. Western socialists and British Labour Party leaders remained more insistent on old ideas of nationalization. They believed, along with a now-rather-forlorn New Deal Left marginalized during the war, that political power would be based on control of economic institutions. The Soviets understood that economic structures would depend, conversely, on political control. Hence they wished to maintain a substantial share of power in the West, and increasingly total domination in Eastern Europe.

Non-Communist political leaders possessed no unified anti-Bolshevik economic ideology between the wars. Catholics clung to a vision of diffused property. Fascists wanted a vigorous program that combined state-led modernization, rearmament, and coordination of interest-group bargaining. They were defeated, but economic mobilization during the Depression and then World War II brought far more state intervention even to liberal economies. Given the sacrifices demanded from civilian populations, expanding welfarestate policies and sometimes nationalization of basic industries seemed a foreordained imperative for postwar social policy in many European societies. The balance of political forces changed - the Labour Party unexpectedly won the 1945 elections in Britain. Coalitions based on resistance forces defeated Fascists and collaborationists on the continent and were prepared to enact the enshrined goals of their socialist participants. Labor union and anti-Fascist political party leaders worked together on "charters" of the resistance or national solidarity pacts that provided for initial wage restraint but more social security, greater protection against unemployment, and further nationalizations of infrastructure. In Britain and the United States, "Keynesian" deficits were accepted as possible fiscal weapons to prevent a return to prewar unemployment. In occupied West Germany, both the Social Democrats and the labor-oriented wing of the Christian Democrats spoke out against any reinstitution of a powerful capitalist industry.²

Call all these latter concepts the ideas of 1945. They enjoyed significant but limited success until the end of the 1970s. The upshot was a social compromise in the West and in Japan. Welfare states were largely instituted, but they coexisted with a return of private enterprise and ownership. The American occupying authorities in Germany helped postpone irrevocable decisions for nationalization until left-wing energies dissipated after 1948–49. Nonetheless, trade unions and the Social Democratic Party sought and achieved a fundamental voice in corporate governance by winning the right of co-determination – that is, parity representation on boards of directors. In

² See Hans-Peter Schwarz's chapter in this volume.

Japan, following extensive debate, American occupation authorities supervised a "reverse course" that helped conservatives to rein in union activism and patiently reconstruct corporate control. Whereas German unions managed to institute co-determination, the Japanese unions worked to forge a system of lifetime job security for their workers. Fascism ended as a political discipline but left its habits and networks: entrepreneurs and political leaders wanted to recover a framework of social discipline and political conservatism. Whether in Italy, Germany, or Japan, labor and management fought to a draw, as American policies both restrained workers' new strength and assured their new voice. In other countries, conservatives returned to the governing coalitions after 1948 and through the 1950s, which became in general a decade conducive to economic growth under capitalist auspices.

Indeed, as Cold War confrontation congealed at the end of the 1940s, the economic "ideology" that came to play the greatest role in the non-Communist world was the idea of sustained economic growth - both as high theory and in the applied form that I have earlier termed the "politics of productivity." Ideas of progress and enrichment had marked earlier economic analysis from the eighteenth century. But the new formalized notions of sustained economic growth as measured by increasing national income could be traced to young Anglo-American economists on the eve of World War II, who assimilated John Maynard Keynes's 1936 General Theory of Employment, Interest, and Money. But they went beyond Keynes's concern with using government spending to recover high employment and defined economic goals in terms of achieving a continuous expansion of output. Early growth literature stressed how difficult it was to achieve the delicate equilibrium between consumption and saving so as not to veer off into inflation or recession. 4 By the late 1940s, however, New Deal economists and the Truman administration promised that technological innovation would assure continuing expansion year after year. Such steady enrichment would allow simultaneous gains for capital and labor. They were not locked into a class war - a

³ Charles S. Maier, "The Politics of Productivity," originally in *International Organization*, 1977; reprinted in Charles S. Maier, *In Search of Stability: Explorations in Historical Political Economy* (Cambridge: Cambridge University Press, 1987), 121–52.

⁴ For early discussions, see R. F. Harrod, "An Essay in Dynamic Theory," Economic Journal, 49 (1939), 12–33, 377, who used the term "knife-edge view"; and Evsey Domar, "Capital Expansion, Rate of Growth, and Employment," Econometrica, 14 (1946), 137–47. See also Moses Abramovitz, "Economics of Growth," in Moses Abramowitz, Thinking about Growth and Other Essays on Economic Growth and Welfare (Cambridge: Cambridge University Press, 1989), 80–124.

message that American labor delegates as well as entrepreneurs and government officials delivered throughout the late 1940s and 1950s.

Applied to the less-developed countries – then called more frankly "backward" or "undeveloped" – the idea of sustained quantitative growth was reshaped as a template for qualitative and structural change, that is, for economic development, which would be enshrined as an official program in Point IV of Truman's January 1949 inaugural address. The promise of the vast dam or steel complex attracted intellectuals and policymakers in Asia and Africa, who asked, however, whether their societies might industrialize without replicating the class divisions of the West. Each camp dangled development projects before the nonindustrialized world in an effort to marginalize the influence of the other. The Point IV aid requested, however, remained about 1 percent of Marshall Plan funding and tended to be extended as an adjunct of trade negotiations on behalf of American firms. Even had sums been larger, development would have remained elusive as even well-funded European areas such as the south of Italy persistently demonstrated.

Specific ideologies aside, the Cold War exerted a profound behavioral impact on economic habits in general. In effect, the protracted confrontation replaced the role of ascetic Protestantism to which Max Weber had ascribed so important a function in Western economic development. Envisaged as a long and enduring commitment, the unremitting vigilance that Cold War leaders invoked naturally reinforced the tradeoff between present and future that is always at the heart of economic progress. As George Kennan signaled in his famous long telegram and anonymous article (signed by "X"), Cold War victory, like economic reconstruction, would take a long time and demand continuing discipline. So, of course, did economic progress. Until the mid-1960s, socialism and capitalism both prioritized the future. Reconstruction required dreams deferred. Remarkably enough, each side did impose that discipline on itself - and this after the most costly war in history had already demanded so much sacrifice. Still, the overarching adversarial contest evoked a capacity for deferred gratification that economic aspirations alone might not motivate. The confrontation between "East" and "West" and the need to rebuild industries and urban centers led to a decade of extraordinary public cohesion. So, too, did the diffuse commitment to reconstituting traditional family and gender roles and the unavowed determination to repress the memory of wartime violence and occupation, complicity, and even betrayal. This extraordinary psychosocial discipline lasted until the mid-1960s. Then the claims of the present, of consumption and of social welfare, of youth culture and expressivity - of détente - reclaimed the present against the future; and

the great societal self-discipline – freely chosen or imposed – began to weaken and fray. Music and missiles, rockets and rock and roll began to pull in separate directions.

The Fordist zenith

Social theorists, such as Raymond Aron and Daniel Bell, argued that both Communist and capitalist economic systems constituted varieties of a common "industrial society." Given the bureaucratic logic of industrial organization, liberal intellectuals explained as the Soviet regime began to "thaw" after Stalin's death, the contending systems might "converge" on a mild sort of planned economy with a developed welfare state. Underpinning this prognosis was a form of industrial structure interwar European business leaders had termed "Fordism," a concept that subsequently migrated into postwar social theory. Fordism envisaged that the mass-production factory was at the heart of the modern economy, an impression reinforced by national industrial mobilization during wartime. As of the 1950s, Fordism entailed deploying mass factory labor at highly mechanized factories that were involved above all with the transformation of steel. For both sides in the Cold War this process seemed crucial, and annual steel tonnage measured relative success. The continuous broad-band rolling mill, developed in the United States, became the iconic component of postwar modernization for German Ruhr firms, the Italian steel industry, and the French Commissariat du plan. Until the later 1960s Cold War economic rivalry remained a Fordist competition that seemed to turn on winning the hearts and minds of the laboring masses who were yoked to the machines and assembly lines that worked the metal.

Nonetheless, industrial relations still remained adversarial into the 1950s. Employers felt they had to restore a discipline to the factory that had been undermined after 1945; unions believed that employers were trying to reimpose the harsh authority they had enjoyed before the war. Into the mid- to late 1950s employers benefited from a robust supply of factory labor as mechanization and fertilizers massively increased the productivity of the European countryside and workers moved into urban areas – from southern Italy to the country's north, from French and Dutch farms into the greater urban areas, then from the southern peripheries of Europe into Germany. In France, Italy, and Belgium employers recovered the power to lay off workers who had been hired during the triumphant days of the anti-Fascist Resistance. Under the impetus of American ideas, and by means of a series of monetary reforms that ended a decade of prevalent inflation and sometimes hyperinflation,

employers amended pay schemes by reducing the cost of living increases or indexation that over time leveled wage differentials. They reintroduced piecework and bonuses for production. Trade unions affiliated with the Social Democratic and Christian Democratic Parties largely concurred in this effort because they tended to represent skilled or white-collar workers whose relative wage position had been eroded by inflation and fixed-increment indexation. Communist industrial federations, in contrast, sought to speak for the less-credentialed masses and resisted wage differentiation. But while they retained working-class loyalties, they did not win more general victories.

Elsewhere there was less resentment. Britain and Scandinavia rewarded their working-class parties with political power or shares in power; in West Germany employers and workers made common cause in the late 1940s against industrial dismantling for reparations. Moreover, one encompassing trade union federation, the Deutscher Gewerkschafts bund (DGB) spoke for almost all industrial workers. The Communist regimes allowed no scope for independent trade-union action, and relied on state planning mechanisms to impose more demanding "norms" or productivity demands from above. Calculating the norms branch by branch in terms of hourly effort, work time, and wage premiums became a continual activity under the socialist planned economies. But precisely because the norms might provoke resistance if screwed too tight (as they did in East Germany in June 1953 and as Moscow warned East Berlin they would), the Communist regimes often left a lot of room for waste and slack, relying instead on Stakhanovite campaigns of socialist "emulation." Despite implicit negotiations, increasing subsidies, and assured employment, they still faced restive workforces: after East Germany in 1953, labor protests shook Poland in 1956 and again in 1970.

The balance of power in the Western workplaces began to erode in the 1960s as labor markets tightened, and there was upward pressure on wages and renewed working-class militancy. Two decades into the postwar era, the priority of reconstruction became less urgent, the demand for present rewards more compelling. Dutch workers in 1964 and German unions in 1966 went out on major strikes; French workers briefly joined student protestors in 1968; Italian labor boiled over in its "hot autumn" in 1969. African-American labor pressed for civil rights gains in the cotton South in the mid-1960s. By this time, another great transition in the organization of work was underway. Costly coal mines and steel smelters – initially the shared achievement of reemerging Europe, the vanguard of the Common Market – would enter a period of overproduction and decline; the miners would troop dispiritedly to employment centers and no longer to the pits.

The classic European proletariat was, in effect, dissolving as Europeans groped toward a post-Fordist economy. The peasant of the Third World or the North American Black Panther replaced the industrial worker as the heroic protagonist of revolutionary change. Even as industrial labor seemed to lose its salience for Western economic progress, the lingering disputes over Berlin and East Germany seemed to be settled by Social Democratic "Ostpolitik" and Soviet-American détente at the beginning of the 1970s. The dramatic sites of Cold War rivalry moved to Asia, the Middle East, Latin America, and Africa. "North-South" struggles subsumed the formerly "East-West" division and helped to reignite radical aspirations in Europe and North America among those not yet safely integrated into the capitalist labor force. These included such diverse groups as the recent migrants from the Italian south to the factories of Turin, the vastly expanded cohort of university students in Europe and Latin America, and the antiwar protesters and the African-American populations of the United States. The result was a decade of destabilization between the mid-1960s and mid-1970s, as the volatility in Asia, Latin America, and Africa, as well as the racial and student conflict in the Atlantic world, undermined the stalemate earlier achieved in East-West relations.

It was historically fitting that by the end of the 1960s the hearts and minds of peasants in the Third World seemed to emerge as the most dramatic ideological battleground of the Cold War. The years of Cold War antagonism coincided not just with the zenith of Fordism, but also with the final stage in the long agonizing global transformation of rural life. Just as Communism and capitalism represented different principles for ownership and control of the industrial economy, so they proposed rival policies for transforming the world's farmers and peasants. This transition managed to frustrate each system but in different ways. Socialist prescriptions for collectivization tended to keep farmers inefficient and a source of chronic shortages more than plenty. Only opening new "virgin land" or importing grain from the West overcame their own deficiencies. Capitalist agriculture, on the other hand, with its mechanization and consolidation of holdings, made farmers so efficient that their family incomes had to be maintained by subsidy, while their surpluses were sold to the East or to less-developed countries whose subsistence agriculture was yielding to monoculture exports.5

⁵ Marcel Mazoyer and Laurence Roudart, Histoire des agricultures du monde: de néolithique à la crise contemporaine (Paris: Seuil, 1998), 457-73.

Looking ahead a decade and more, though, we can see that the intractable difficulties of global agricultural transition and even the dramatic resurgence of peasant revolution did not spell defeat for either side in the Cold War. Rather, the transition out of Fordism proved ultimately disabling for state socialism, even as a revived market capitalism rode out the difficulties. Stalin's successors had sought to loosen the yoke of a system that had become increasingly paranoid and repressive. They were prepared to envisage an effort to accommodate market forces in the 1960s - half-hearted compromises with planning known as Libermannism or khozraschet (autonomous firm accounting) in the Soviet Union, identified with Ota Sik in Czechoslovakia, and introduced by Walter Ulbricht's New Economic System in East Germany. East German and Soviet planners became interested in cybernetics – both as an area to which technology might be applied and as an approach to social planning in general. In practice, however, the reforms of the 1960s ran into difficulty as the freedom to set prices or retain profits created shortages in other sectors. Moreover, they were ultimately discredited in Leonid Brezhnev's eyes by the infectious political reforms that soon thereafter swept over Czechoslovakia.

Yet without market-based reforms - above all without the freedom to redeploy labor from older Fordist to post-Fordist employment - the state socialist economies were doomed to lag. Layoffs and, in effect, enterprise closures were excluded under socialism, which ultimately contributed to its undoing. What its major analyst has called the soft-budget constraint - never really facing a bottom line - always deferred facing up to inefficiency, redundancy, and waste and, ironically, produced constant scarcity.6 Until the mid-1970s, both social "partners" in Western Europe also tended to accept the policy imperative of assuring reasonably full employment. It was part of the postwar social contract that had secured a quarter-century of economic growth. Still, there were reality checks on economic behavior under capitalism that did not exist under socialism - preeminently a functioning price system and the presence of the market with its continuing transformative dynamic, its constant rewarding of innovation, and its unremitting constraint on a mass of employees who might otherwise believe they should continually seek a greater share of national income.

So the Cold War, which began in an age when coal and steel were the base of industrial power, continued into an era when these underlying elements – and

⁶ János Kornai, The Socialist System: The Political Economy of Communism (Princeton, NJ: Princeton University Press, 1992), esp. 129–59, 203–61.

the industrial structures based on them — no longer seemed crucial for progress. It began preoccupied by East—West issues, but concluded with problems we shorthand as North—South. (In fact, the North—South aspect was never absent from the Cold War, for stabilizing East—West tensions required reshuffling North—South exchanges and power as well.)⁷ These changes did not spell the end of American economic preponderance. The United States would extricate itself from Vietnam; accept counterrevolutionary regimes in Latin America and the Caribbean; reorganize its overextended financial leadership around a flexible dollar still necessary as an international means of exchange; and eventually by the 1980s roll back many of the remaining elements of nonmarket regulation that had emerged out of World War II. As in the 1950s, Washington would do so in a partnership with a weaker Britain, whose ideological and occasional military support still remained legitimating.

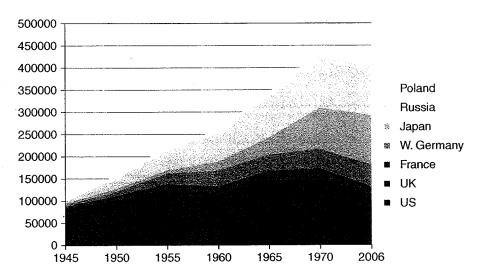
Even as these transformations took place, postindustrial society undermined the emphasis on labor and production that had characterized what the Italian sociologist Aris Accornero has written would be remembered as the century of work. New lifestyles, the expansion of consumption, new migrants: all dissolved this once heroic austerity. Even the shiny kitchen appliances Nixon had brandished a decade before were no longer enough – all the more since they came burdened by gender typologies that a new generation sought to transcend. The Cold War began in black and white, but ended in color. We cannot finally comprehend its totality unless we see it within the context of that half-century advent of mass prosperity based originally on a mass-production industry, but destined to fragment into a kaleidoscopic society shaped by migrations, job evolution, ideological reassessment, and insecurity.

Restructuring global economic space

Cold War rivalry was territorial as well as ideological. Influence was sought in particular territories and regions – Europe at first, but then Asia and Africa. This was not really rivalry over resources or raw materials despite many statements to the contrary. Each side was plentifully endowed with strategically important commodities, including oil. What the Soviets and their

⁷ See Matthew Connelly's chapter in volume III.

⁸ Aris Accornero, Era il secolo del lavoro: come era e come cambia il grande protagonista del 900 (Bologna: Il Mulino, 1997), esp.62–73.



The world economy and the Cold War in the middle of the twentieth century

1. The Cold War as a Fordist competition: crude steel output, 1945–1970 (in thousands of metric tons)

Note: Steel tonnage was widely considered as a proxy indicator of industrial prowess, as well as being a basic input into industrial products. Polish data suggests the partial industrial transformation of Eastern Europe. During successive decades, steel output moved to newly industrializing countries and stabilized in Europe and North America. Global steel output in 2006 was 1,250 million metric tons, over twice the world total of 59 million. tons in 1970, of which China produced over a third (422.3 million tons), India 50 million tons, and South Korea 48.5. Sources: B. R. Mitchell, European Historical Statistics, 1750–1950, abridged ed. (London: Macmillan, 1978), 223–28; American output from Historical Statistics of the United States (New York: Cambridge University Press, 2006), vol. IV, 636 (converted from short tons to metric tons); 2006 data from Steel News of the Iron and Steel Statistics Bureau (London), and special assistance from Arnulf Grubler of the International Institute for Applied Systems Analysis, Laxenburg, Austria.

dependants could tap within their vast land mass, the Western allies effectively controlled in areas of former colonial dependency or longstanding special access. The confrontation between the Soviets' coalition and the Americans' developed rather as a struggle for territorial and political control in the wake of German and Japanese military collapse in Europe and Asia.

The urgent economic task set to both sides in the postwar era was recovery from the damage of World War II. But this was an asymmetric task. The Soviet Union had lost 20,000,000 or more of its 1939 population of about 170,000,000. While a great deal of economic plant had been moved to the Urals, western Russia was physically devastated. The estimate of real national output in 1945 was about 80 percent of the 1940 gross national product. 9 In

⁹ B.H. Mitchell, European Historical Statistics 1750–1970, abridged ed. (London: Macmillan, 1978), 7 (population), 415 (GNP).

contrast, the United States economy had grown during the war; it had mopped up the 15 percent unemployment that still idled so many workers as late as 1940. Insofar as the Soviets wished to maintain any sort of legitimacy in the East European nations where their armies were to remain, the Kremlin had also to assure these countries some prospect of recovery.

In the European arena Germany appeared the key to the job for both sides. As a political conflict, the Cold War originated as a struggle against the postwar exclusion of non-Communist political leaderships in Poland and Eastern Europe. As an economic contest, the Cold War originated as a struggle for Germany. Under the inter-Allied reparations program discussed at the Yalta Conference in February 1945, German industry beyond the minimum needed for survival was set to be dismantled and its productive resources distributed to both East and West. This would allegedly avoid the protracted annuities that Versailles had stipulated and which had remained a source of continued friction throughout the 1920s. But reparations proved a wedge for conflict after World War II as well. At Yalta, the Allies named a reparations sum of \$20 billion, half of which could be claimed by the Soviet Union, but at Potsdam in July the new administration – less moved than its predecessor by the emotional tug of the joint war effort - claimed the old figure had never been binding and sought to fix a new total of \$10 billion. The compromises finally worked out stipulated that German productive capacity would be rolled back to the level of 1932 and that excess industrial plant would be dismantled for reparation. Each occupying power would draw 75 percent of its reparations from these surpluses in its own zone, which left the Soviets a free hand in the East. Additionally the Western powers would provide 10 percent of their reparation assets to the Soviets free and clear, and a further 15 percent in return for agricultural commodities to be provided from the East. Critics of reparation and dismantling - in the United States increasingly business leaders and Republican senators - complained that the projected ceilings on German output would permanently hobble its economy. Secretary of State Byrnes reassured a German audience at Stuttgart on September 2, 1946, that Washington had no intent to prevent their economic recovery - the first major public revision of strict occupation guidelines.

By this time, the reparation agreement was disintegrating in any case amidst recriminations on each side. In May 1946, General Lucius Clay ordered a stop to reparation deliveries to all recipient countries, and the Americans sought to gain a greater voice in policy in the industrial regions of western Germany administered by the British. The British likewise found paying for their zone a growing strain and agreed to creation of a joint economic

administration – "Bizonia" or the Bizone – to come into effect at the beginning of 1947. Germans were put in charge of its rudimentary economic administration, and its Economic Council (Wirtschaftsrat) would become the predecessor of the West German parliament. The French opposed American efforts to relax the constraints on German production. At the Moscow and London meetings of the Council of Foreign Ministers of April and December 1947, the Americans refused to make any further concessions on constructing the unified German institutions that the Soviets pressed for – fearing they were intended to serve only as a fulcrum for Communist influence in the West.

Thus the united economic area that Germany had once constituted disintegrated, and two economic realms would emerge. The UN's Economic Commission for Europe to be headed by Gunnar Myrdal would seek to counter the trend and to preserve a united economic space, but Myrdal tended to be held in contempt by policymakers in Washington and London. The Allies had supposedly acted on behalf of a reunited Europe at Yalta, but the reparation agreement at Potsdam left each zone to be milked by its respective occupying power. Growing distrust about political intentions – Washington's conviction that the Soviets wanted to dominate all of Germany; Moscow's conviction that Washington preferred to partition Germany – both turned out to be well founded.

The division of Germany meant the economic division of Europe more generally. A whole series of incremental decisions from 1945 through 1948 led to that result, but the most dramatic and far-reaching was American organization of the European Recovery Program (ERP), or the Marshall Plan, announced after the failure of the spring 1947 Moscow Conference. By that time, it had become evident that Europe's dollar deficit, which meant its need for United States commodities, remained an urgent problem despite the effort to assure postwar liquidity by the Bretton Woods agreements negotiated in the summer of 1944 and significant relief payments through UNRRA (the UN Relief and Rehabilitation Administration). Britain could not sustain anti-Communist assistance in Greece; the French, Belgian, and Italian Communist Parties were making inroads among a working class whose standard of living seemed threatened; Germany's currency was no longer serving to coax goods into the market.

What was the magnitude of American assistance? Over four years the ERP authorized almost \$14 billion of assistance. When it began in 1948, the first authorization (comprising first so-called Interim Aid, then assistance under the European Recovery Program per se) amounted to about 2% of US gross domestic product; by 1951 it was closer to 1%. This was a significant transfer of

resources, but not at all disabling. (Americans had already been spending 40 to 45 percent of GDP on war-related expenses by 1944-45.) As for the recipient countries, the sums received had a qualitative more than a quantitative impact: they alleviated balance-of-payments or budgetary constraints. The national income of European countries tended to recover the levels of 1938 or 1939 by 1948. Getting back to prewar levels of national income, however, did not mean that national wealth destroyed, damaged, or depreciated in wartime was reconstituted in five years. Iinfrastructure had to be rebuilt and, after that, housing needed to be repaired; ruins, shabby transport, and makeshift accommodation persisted for years afterward. Long-accumulated private savings held as monetary assets often for the next generation (bank accounts, bonds) were diminished either deliberately in monetary reforms, as in Belgium, West Germany, and Eastern bloc countries, or by living with inflation. Perhaps most farsightedly, Washington agreed to help finance the dollar pool needed to let the Europeans return to partial currency convertibility through the European Payments Union during the 1950s. By the time EPU was wound up in 1958, it was becoming clear that, against all expectations, the international dollar shortage was becoming a dollar glut. The era of a weakening but tethered dollar from 1958 to 1973 - at which latter date the Nixon administration accepted a regime of floating exchange rates - may have contributed to the unprecedented length of real economic expansion throughout the non-Communist world. At the same time, the outflow of dollars helped set the stage for the decade of inflation in the 1970s and ultimately discredited the neo-Keynesian assumptions that had justified the welfare-state policies and monetary expansion of the previous quarter-century.

All in all, the economic initiatives on both sides of the Iron Curtain profoundly changed Europe's economic geography and its economic institutions. The European Recovery Program helped confirm the division of Europe, but placed the major onus on Moscow for this result. In theory, Marshall Plan aid was offered to all European states that might join in a cooperative effort to increase international trade and output. Moscow planners felt this must undermine their own central planning and domination of East European economies and quickly withdrew cooperation. Only the Czech coalition government would stay until the fall of 1947 and pay for this autonomy with a Communist takeover in February 1948.

Within Western Europe, the Recovery Program – organized through the new autonomous European Cooperation Agency (ECA) – became an agency for transformative thinking, especially from the fall of 1949 on when Paul Hoffman – facing a congressional fight for renewed authorizations and

seeking a dramatic initiative – called for an admittedly ill-defined "integration" among the West European recipients. The ECA's Washington economists, trained just before the war as interventionist ideas flourished, continually urged a more coordinated and even planning-type intervention on the Europeans. The ECA itself spurred recipient countries – organized initially as the Organization for European Economic Cooperation (OEEC), then as the Organization for Economic Cooperation and Development (OECD) – to develop common Western criteria for measuring economic performance, including better national income statistics. The North Atlantic Treaty Organization (NATO) and the Mutual Security Administration (MSA) that succeeded the Recovery Program pressed statistical coordination even further when the NATO Temporary Council Committee of the autumn of 1951 began to measure members' military expenses as a ratio of their gross national product in order to overcome lagging rearmament.

In a long-run perspective, the postwar transformation of European economic space served also to restructure two major prewar trade and investment relationships: the German–Russian and the British–American exchanges. East Germany ended up taking on most of the burden involved in reconstructing the first of these relations. It was a territory to be stripped for so-called war booty, then for reparations. As the East–West rift deepened, however, the Soviets decided to take East German industrial output as reparations, rather than its equipment, perhaps up to 40 percent during 1947–48. Throughout its existence, East Germany and later the German Democratic Republic (GDR) would remain the major supplier of machine tools to the Soviet Union. Moscow further sought to establish an integrated state socialist economic bloc that could dispense with imports from the West, and the countries they controlled zealously replicated Soviet-style central planning and collectivized industry and land, with Polish farms remaining the great exception.

The Soviet domination of Eastern Europe and East Germany and the multiyear American program for West European aid meant that there would be no socialism in just one country – and no capitalism either. Within the two blocs, participating states strove for greater amounts of trade and exchange. Just as the Marshall Plan would seek to reconstruct multilateral Western trade, the Soviets would establish the Comecon (Council for Mutual Economic Assistance, CMEA) for the planned economies. In effect, the Comecon was designed to offer an alternative for the economies to which Moscow denied access to Marshall Plan aid; it thus had to establish its own intrabloc trade in lieu of dollar purchases, but it was to remain a region of second-class

manufactures, at times exploited by the Soviet Union and at times subsidized with inexpensive oil and raw materials.

British-American economic relations also changed profoundly. While the Soviets could treat Germany as a defeated power, Britain and the United States were victorious allies. London, moreover, retained a privileged relationship with its imperial dependencies and dominions. Nor was London alone in drawing on such vestiges of empire. British-American economic relations before the war had been troubled by the 1931 Ottawa Agreements that had put the Commonwealth countries, including Canada, behind new tariff walls. Lend-lease assistance had been granted under the condition that after the war such trade discrimination would be dismantled. But Britain faced acute balance-of-payments strains. The country had fought its East Asian war by levies on its Suez-to-Singapore dependencies (or the businesses and plantations within them). In return for materiel, the Exchequer had credited its suppliers with sterling accounts in London. After the Bretton Woods agreements and the negotiation of the American loan, these balances were supposed to be made convertible into dollars. United States officials tended to believe that British pretensions outweighed its real economic resources and that London should ultimately shed the imperial privileges or monetary immunity it sought to retain. Accepting convertibility of sterling (that is, ending what UK policymakers described as a two-world system) would compel the British, so the Americans were convinced, not without reason, to strengthen their own industrial resources. Still, pressure from Washington was only intermittent. Britain retained an important voice in the reorganization of Ruhr resources, was fighting putatively Communist guerrillas, briefly in Greece and then in Malaya, and might help stabilize Iran and Arab lands. The British had friends among the State Department and other elites, but Republican congressmen, who controlled the House after 1946, fretted about the supposed indulgence of a semi-socialist welfare state.

Were the powers partners or rivals? The answer, repeatedly vouchsafed but only after episodes of hard bargaining, was partners of a kind. Thus the United States extended assistance first by a postwar credit of \$3.75 billion and then by granting Britain the largest single share of Marshall Plan

¹⁰ I borrow the title of Christopher Thorne's valuable book on British-American wartime relations, Partners of a Kind: The United States, Britain, and the War against Japan, 1941–1945 (New York: Oxford University Press, 1978). Joyce and Gabriel Kolko captured the ambiguities of the economic relationship in The Politics of War: The World and United States Foreign Policy (New York: Random House, 1968) and The Limits of Power: The World and United States Foreign Policy, 1945–1954 (New York: Harper, 1972).

authorizations. Simultaneously, however, American Treasury officials pressed Britain toward a quickly rescinded attempt in July 1947 to restore the convertibility of sterling, and two years later toward significant devaluation of the pound in September 1949. On the other hand, ERP and State Department officials put less pressure on London; they envisaged Britain as an important partner in containment; neither did they object so viscerally to expensive welfare-state commitments. The ECA agencies that administered the ERP authorized Britain to use its Marshall Plan allocations to reduce its overall debt burden. Similar considerations led Washington to tolerate the French use of Marshall Plan funds to help balance their budgets, lest fiscal austerity increase the domestic role of the Communists and undermine the French military effort in Indochina.

The upshot of all these arrangements between 1944 and 1973 was that Washington first funded, then replaced, British and French imperial commitments, often in the cause of containing Communist challenges in the Third World. Direct loans to London and Paris, then Marshall Plan aid and military assistance, helped Paris and London pay for their forlorn wars in Asia and Africa. Increasingly Washington intervened directly without intermediaries. In effect, the United States became the de facto heir to the "Third World" empire, now exercised through economic influence and selective military or covert action. Some sites were new, such as Iran, some old, as in Central America.

From 1950 on, nationalists throughout the Middle East would be seeking to claw back the profits of Western oil companies. The US Arabian-American consortium, ARAMCO, its position reinforced by Franklin Roosevelt's cultivation of Ibn Saud, conceded the Saudi claim to half their oil revenues, in part because the American firms were entitled to claim equivalent tax deductions at home. The British Anglo-Iranian Oil Company, with its great offshore refinery at Abadan Island, enjoyed no equivalent tax exemption and resisted an equivalent bargain. When the leader of the nationalist party coalition, Mohammed Mossadegh, successfully urged Iranian nationalization of the industry as of May 1951, the Truman administration initially dissented from London's ideas for a military response. But the Republicans who took power in 1953 had different sympathies, and sponsored a Central Intelligence Agency intervention that ousted Mossadegh and restored the young Reza Shah Pahlavi from his brief exile. Although the nationalization remained in effect, marketing of the oil was turned over to an international consortium in which American firms now participated. The new status quo lasted for another twenty years - providing cheap energy for the West, guaranteeing profits

for the oil firms, confirming Iran's pro-American orientation, and reining in any British dreams of reexerting imperial methods – at least until London faced the next nationalization crisis over Suez two and a half years later.

Rivalries over oil are often identified as a major stake in the Cold War. But the politics of oil perhaps exerted less impact as a stake in the Cold War than as a major resource that the two superpowers used to organize their respective blocs. In 1973–74, when the era of cheap energy threatened to end, and the control of prices was at stake, another Republican administration managed to reassert American interests through monetary hegemony which, though weakened after 1971, could not easily be replaced. Since payment to members of the Organization of the Petroleum Exporting Countries was collected in dollars, Americans did not face the exchange constraints their allies did. American firms collected oil revenues for Middle Eastern producers who held them in dollarized assets. Similarly, as the global price of oil rose sharply in 1974, the Soviets used their vast reserves to subsidize their Comecon partners and assure their continued adherence to the Communist economic bloc. Control of oil and scarcity of oil thus served the primacy of each superpower.

Raw materials were hardly the only stake in the Third World. Certainly American and British oil firms had powerful interests in the Middle East, as did the United Fruit Company in Guatemala, where Americans worked to unseat the reformist Guatemalan premier, Jacob Arbenz, in 1954. So, too, did the Belgian Union Minière, which supported the secessionist Moise Tshombe in Katanga province of newly independent Zaire in 1960–61, while Washington helped to eliminate the Marxist premier Patrice Lumumba. But the stakes in the regions described successively as "backward," then "underdeveloped," then "less developed," then just as "developing," transcended their commodities. From Lenin on, Communist leaders envisaged that the colonial regions would be a decisive arena of ideological conflict. North–South contention would influence East–West outcomes. As the Cold War became global, each side sought to forestall the influence of its adversary from becoming decisive in the postcolonial world.

Hence, alongside the colonial wars that would ravage successive societies, a system of competitive aid structures would emerge by the 1950s. The Egyptian leader, Gamal Abdel Nasser, would turn to the Soviets to help build the Aswan dam (and nationalize the Anglo-French Suez Canal Company) when the West walked away from the project in 1955. After West Germany recovered formal foreign-policy autonomy in that year, the two Germanies would offer assistance to the Third World, the Federal

Republic in large part to keep quarantining the GDR as its "Hallstein Doctrine" stipulated. China entered the arena in the 1960s in large part to contest the Soviet Union. As for the African states, no matter how inclined toward socialism, they also sought to balance their suitors. The Western powers, moreover, had the capacity to vastly outweigh the credits and grants that their Eastern rivals offered. From 1954 through 1963 the Soviet Union opened credits of \$4.94 billion to the "developing world" and made payments of \$1.62 billion; OECD payments reached almost \$23 billion."

Looking back at the economic results achieved, it might be asked in what respects the recipient countries benefited from the aid received. Funds poured into mines and extractive industries did not advance manufacturing capacity; ambitious leaders could use the aid to reinforce systems of personal rule that reinforced tribal loyalties and clientelism; the big project that donors assisted often misallocated resources; farming could be discouraged as agricultural prices were held down to subsidize the new industrial labor forces. Too often, despite the well-meaning effort of so many individuals who labored to improve the health and welfare and progress of Africans and others on the margins of subsistence, the stake of aid was not welfare but control.

Costs and benefits

Since this is an inquiry into the economic aspects of the Cold War, which so dominated global international relations for almost half a century, it is fitting at the end to inquire into its costs and benefits even if the gains and losses of any grand national project, such as a war or an arms race, can never be fully determined. If there are benefits – perhaps employment levels maintained at a higher level than might otherwise be the case, or stimuli for innovation – it is impossible to attribute them unambiguously to the conflict. Conversely, the levies imposed on a society represent not just what was actually spent, but the opportunity costs of postponed or discarded alternatives; and it is hard to price even plausible counterfactual paths of development. Perhaps we can compare the societies caught on different sides of the Iron Curtain – East and West Germany, North and South Korea, in which case the indices of economic welfare clearly favor the non-Communist side. Between 1936 and 1955 East German GNP rose 10.4% while West German GNP increased 80.3%. The East Germans did relatively better from 1950 to 1955, when their GNP rose 40.6%

¹¹ See Sara Lorenzini, Due Germanie in Africa: la cooperazione allo sviluppo e la competizione per i mercati di materie prime e tecnologia (Florence: Edizioni Polistampa, 2003), 148.

while the West German went up 63.5%.¹² To be sure, West Germany had received Marshall Plan aid while East Germany had paid heavy sums in reparation; nonetheless, even at the time of reunification almost four decades later, East German productivity and per capita national income were probably about half those of West Germany. The toll taken by a cumbersome state socialism is not the same as the costs imposed by the rivalry between the systems. Communism and the Cold War were not the same, but the Cold War helped to congeal the differences between systems as well as being in part their consequence.

We should question, I believe, one popularly held hypothesis, namely that in the West, at least, the military rivalry imposed a great burden on civilian investment and general progress. Western defense-related expenditures in the Cold War were highest for Britain and the United States; the UK was spending roughly 10% of GDP on defense in 1947, almost twice the US ratio of 5.25%, and, in 1948, 7.26% or 1.5 times the US share. The Korean War and the NATO rearmament effort brought US expenditure to almost 15%; Britain's peaked at about 10.5%; and France hit its maximum - even higher than before World War II - of about 12% in 1952. Other Western societies did not approach this level. The most careful study of the economic impact on Britain concludes correctly, I believe, that even allowing for indirect costs, such as the higher interest rates for civilian expansion, and for short-term strains, no major economic drag intervened. France's war in Indochina was largely funded indirectly by the Americans, according to the best study we have. The demands of defense probably stimulated research and development in what would prove to be the most advanced sectors of the civilian economy namely computers and related electronic and software industries - beyond what civilian demand alone might have encouraged. NATO forces also continued to lower Europe's current account constraints. On the other hand, Soviet expenditures may have been 20 percent of GDP, and probably did contribute to the difficulties of its economy. 13

¹² Wolfgang F. Stolper, The Structure of the East German Economy (Cambridge, MA: Harvard University Press, 1960), 417.

Till Geiger, Britain and the Economic Problem of the Cold War: The Political Economy and the Economic Impact of the British Defence Effort, 1945–1955 (Aldershot: Ashgate, 2004), 38–44, 121 n. 3. As Geiger argues, Britain may have made some unfavorable tradeoffs within the defense budget, but consistently from 1947 through 1957 spent between 54 and 66 percent of its public expenditure on defense and accepted a "warfare state" without really stinting. See also Hugues Tertrais, La piastre et le fusil: le coût de la guerre d'Indochine 1945–1954 (Paris: Comité pour l'Histoire Économique et Financière de la France, 2002), 356–96.

What impact, one might finally ask, did the Cold War have on the global environment that was its arena? The emphasis on industrialization and economic growth, the privileged access to minerals, fossil fuels, and hydrocarbons, either by Western companies or state socialist governments, probably increased the rapid exploitation of these resources. Of course, this toll would have been even higher if, absent the Cold War, economic growth had been even more rapid. Still, it makes sense that insofar as each side felt it must press industrial and military output to a maximum, it would sacrifice ecological and even safety considerations. The East Germans, for example, expanded brown coal production, dirty chemical firms, and an exploitative use of their once-extensive forests, The emphasis on heavy industry, whether in the Soviet paradigm of socialist planning or the American encouragement of import substitution, spurred industrial construction that had grave impacts on the environment.

Without the competitive pressures of the Cold War, according to John McNeill, the "green revolution" might have been far slower to make its effects felt in Mexico or India. On the other hand, in Third World regions where the superpowers competed, their prescriptions for import substitution and industrialization encouraged the sacrifice of subsistence agriculture, and the abandonment of farms for shantytowns. The Chinese regime embarked on the reckless "Great Leap Forward" in the late 1950s and helped produce one of the most disastrous famines of its history. But a megalomaniacal leader, not Cold War competition per se, motivated this policy, and China drew appropriate lessons. Old-fashioned national economic competition would probably have been intense even without the Cold War. Brazil and Africa incurred deforestation without extensive Cold War motives; barrios and favelas have continued to spread after the Cold War ended. And even state socialism brought to its lands public goods - literacy and access to basic health care - that might otherwise have lagged. And of course the environmental costs were not produced by one side alone: the American consumerism that Nixon vaunted in that Moscow kitchen, with the personal auto as its center piece, has played its role in global warming and other externalities that have yet to be tallied.

Should we not also assign some cost to the fact that at many moments hundreds of millions of men and women and children and the accumulated monuments of their many civilizations were hostage to atomic destruction? Would humankind not collectively and individually have paid a substantial premium to have that very real danger removed? Or was the danger itself, as deterrence theory suggested, the premium we had to pay so that these weapons were never used? Alternatively, the danger could be construed as

the premium that political leaders on both sides claimed was needed to avoid political subjugation. Could we have developed a less risky and more rational premium? Or was its rationality ultimately demonstrated by the fact that the wager was never called? With such inquiries, however, we reach the limits of history and of political economy.