Chapter Two

Toward a Premise for Grand Strategy

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> At the close of the nineteenth century, Britain's leaders shared a belief in the importance of "national economic power," but they lacked agreement on exactly what that concept meant or how it should be measured.
>
> —Aaron L. Friedberg[1]

> [T]he successful powers will be those who have the greatest industrial base
>
> . . . those people who have the industrial power and the power of invention and of science.
>
> —Leopold Amery[2]

> The greatest danger to American security comes from the national debt.
>
> —Admiral Michael Mullen[3]

In 1945, the United States became the guarantor of an international political and economic system that, by the end of the Cold War, was global. Today, America sustains that position primarily through two elements of its national power: its peerless military and its dollar currency, upon which the international monetary and economic system is largely based. A third element initially enabled that hegemony in the 1940s: the national economy—that is, the Nation's industrial might. Much of that element is no longer present today.

American Hegemony and Its Dependence on a Techno-industrial Base

Academics debate the idea that America's hegemonic role has been roughly analogous to that of Great Britain in the 19th and early 20th centuries, made possible by its Royal Navy and pound sterling. The parallels are striking. Yet often overlooked in the colloquy is an important distinction. Whereas Britain was an imperial hegemon *before*

it was an industrial power, U.S. military and monetary hegemony in the American Century was *based* on its industrial power. British institutions for governance—feudal, monarchical, and commercial—long preceded industrialization. In America—initially an agrarian and commercial republic—industrialization preceded its global role and establishment of the present U.S. system of national security governance, institutionalized by the National Security Act of 1947. We are thus left with the question: Does America have the institutions of governance to manage the strategic environment of its apparently "post-industrial" 21st century?

The postwar establishment of the U.S. national security system reflected three strategic preconditions specific *only* to that time:

- America's singular and expansive industrial preeminence, which was undamaged by war, and the means through which it was able to apply transformational technological advances for military use (for example, atomic science) effectively enabled the Allies to win World War II and, under U.S. leadership, reconstruct a postwar international economy.
- At the same time, America and its postwar allies immediately had to focus on a geostrategic threat from an ideologically driven Soviet Union. Moreover, by the 1950s, this single geostrategic adversary had the nuclear weapons capability to threaten the survivability of the American homeland—effectively capturing the national mind.
- Fortunately, though, mid–20th-century America was a time and place when and where a community of interest had arrived at the apex of national power in the political, economic, social, and cultural spheres. Notwithstanding the manifest tensions of the century, this established community of interest at bottom shared a common history and as such was able to sustain a workable cohesion and continuity at the top in New York and Washington, where strategic consensus was generally expressed with the term "bipartisanship."

Today, however, all three of these strategic preconditions are absent. No longer a nation in surplus with an unrivaled, expansionist, techno-industrial economic base, America is in debt and arguably becoming post-industrialized—or, as some would have it, de-industrialized. No longer faced with a single geostrategic adversary, U.S. national security governance attempts to manage strategic challenges

that neither generate consensus on prioritization nor lend themselves to military solutions. Yet diverse events and situations like 9/11, Hurricane Katrina, the ongoing debt crisis, uncontrollable immigration, and the BP oil spill in the Gulf of Mexico evince the new and more complex, multidimensional strategic vulnerability of America's heartland "core." Lastly, no longer a nation with an established community of interest providing cohesive leadership across all spheres of national discourse, America is becoming an unbounded space with multiple communities of interest. Most seriously, these communities often reflect conflicting borders-in and borders-out priorities and possess the means to effect them—through favored executive branch departments and agencies[4] and congressional committees with budgetary oversight.

Unfortunately, today's strategic environment frustrates and often daunts attempts to conceive a national economic strategy as a dimension of national security. And like the British at the turn of the last century, we may recognize the concept of national economic power, but we do not agree on what that concept means.

From the beginning of its history, America has pursued to varying degrees three objectives within a national economic strategy, often simultaneously. From 1789 to the present, expansion of national economic power has been a consistent goal. From roughly 1902 to 1992, economic strategy included preparedness or mobilization for war, whereby its Cold War application translated to government acquisition policies characterized as serving deterrence. During the post–Cold War 1990s, emphasis shifted to economic competitiveness, albeit in a form that did not benefit all economic sectors equally. Finally, since 9/11 and Katrina, still-amorphous notions of sustainability and resilience are taking root that may or may not be fully consistent with expansion. War has provided the bookends for each period of evolution, leaving the Nation in a different state than it was before. The American Revolution, Civil War, World Wars I and II, and Cold War mark those passages very clearly. Added to those familiar bookends is the conflated impact of 9/11 and Katrina, which, in terms of evidencing the need to transform American governance, rises to the level of war.

What follows proposes to characterize the evolution of the U.S. techno-industrial base and its relationship to finance, governance, and globalization in an effort to inform development of a national economic strategy for the 21st century that addresses the security and welfare of—to adapt the concept of the British geographer Halford Mackinder—the American heartland core.

From Colonies to Continental Colonizers

As for the familiar conceit comparing the hegemonic role of the United States in the 20th century to Britain's in the 19th, another distinction relates to so-called establishments. Great Britain is a constitutional monarchy, the foundations of which remain on feudal soil to this day.[5] Its commercial expansion was driven by royal charter; notable examples include the British East India Company (1600), Hudson's Bay Company (1670), the Peninsular and Oriental Steam Navigation Company (1837), and Cecil Rhodes's British South Africa Company (1889). British expansion also came through charter, proprietary, and royal colonies. In North America, the New England colonies were mostly charter colonies, although Massachusetts had a unique transition from a charter with proprietary aspects to a royal colony. Mid-Atlantic and southeastern colonies were proprietary colonies under a governor functioning as commercial enterprises under the authority of the crown and answerable to shareholders.

Overall, the British expansionist strategy was mercantilist, predating and generally continuing through industrialization. British institutions of governance provided for and were a reflection of establishment—an aristocratic continuity during these centuries of expansion. By contrast, the United States as a representative democracy pursued expansion in a manner that was led by the private sector and supported by government policies. Establishment continuity was thus not so obvious in America. With respect to an expansionist strategy, it is thus helpful to ask, *Cui bono*? Which regions, economic sectors, and interests benefited?

Seen from a historical distance, following revolution and independence, the 13 original states made a transition from colonies to, in effect, continental "colonizers." The most durable through-line is apparent for the New England states, where surplus agricultural production generated wealth, and a network of rivers provided access to commercial ports and upstream power to run textile mills. Here was the Nation's first integrated industrial and financial base built around Boston to enable an American establishment to pursue expansionist economic strategy. State and local governments raised capital and issued bonds to finance transportation systems—turnpike roads and canals. While not all canal projects were successful, the New England cotton-textile industry saw in them the opportunity to "export" to the rest of the United States. Rapid growth occurred following the War of 1812 to the

1850s. New York's underwriting of the Erie Canal dramatically changed the dynamics. Completed in 1825, the waterway opened the Great Lakes and Upper Midwest to immigration and farming and furthered New York City as a preeminent port, giving it the edge over Boston as the nation's commercial and financial hub.[6]

With advances in steam locomotion technology, railroad construction soon followed throughout New England and the Northeast. In particular, Pennsylvania was able to leverage its own integrated base. The Lehigh River Valley linked anthracite coal and iron mining with an established infrastructure of blast furnaces and incipient manufacturing to generate an extensive regional rail system, all feeding the regional port and financial center, Philadelphia.

In the 1860s, President Abraham Lincoln, whose political fortunes in Illinois were very much tied to rail interests, threw his weight behind Federal support to railroad companies when he signed the first Pacific Railway bill. Between 1850 and 1870, 80 railroad companies received land grants for over 129 million acres, mostly west of the Mississippi River—representing territory totaling approximately 7 percent of the continental United States. This expansionist strategy should be seen as continuing to benefit the industrial-financial interests of the Northeast and Pennsylvania that were vying in the mid-19th century with the slaveholding interests of the South and their pursuit of an agriculture-based expansionist strategy.[7] The Federal Government saw its role as organizing the Nation to develop unified commercial markets.[8] After the Civil War, Federal policy favored manufacturers and railroads over farmers through tariffs and those railroad land grants, which over time would yield recipients huge profits.

These Northern financial-industrial interests thus benefitted and deepened the linkage with Midwestern agricultural processing and extractive industries, which began to change the tenor of those heretofore self-sufficient frontier economies. Another through-line emerged as the Midwest "colonies" began to rebel. At the turn of the last century, the movement was called populism. Later, it was Progressivism. Following the Great War, it morphed into isolationism. By the end of the Cold War, the term economic nationalism came to the fore.

At the end of the 19th century, the United States was on its way to achieving a continental, unified commercial market with a concentrated financial-industrial establishment centered in New York City, the crown jewel of the Empire State. Yet profound social and economic tensions

required resolution via a new paradigm of governance. In the years surrounding the Great War, U.S. Presidential leadership embraced a now forgotten concept, called associationalism,[9] first introduced to America by Alexis de Tocqueville. Associationalist leaders—Theodore Roosevelt, Woodrow Wilson, and Herbert Hoover[10]—came from the ranks of Progressivism. Yet associationalist precepts, such as central planning and collective bargaining, came to define 20th-century American governance characterized as the collusion of big business, big labor, and big government.

Many commentators point to Franklin Roosevelt and the arrival of the New Deal as the moment when the Federal Government and the executive branch agglomerated the centralized power through which it governs today. However, this process actually began during Theodore Roosevelt's trust-busting and the run-up to the First World War. Indeed, it continued through the Great Depression and World War II into the 1960s, with Lyndon Johnson's Great Society programs that created large Federal bureaucracies to administer entitlements directly to individual citizens. Nevertheless, the most profound enablers of all that followed dated from the Progressive era. They were the 1913 establishment of the Federal Reserve System and institution of the Federal income tax.

From independence until the Civil War, comparatively modest Federal revenues had come from excise taxes, tariffs, customs duties, and the sale of public land. During the Civil War, the Federal Government instituted an income tax to cover the costs of war. It remained in effect until 1872.[11] After the Civil War, revenues came from taxes on liquor and tobacco, excise taxes, and high tariffs. With Woodrow Wilson's institution of the Federal income tax, the Federal Government had real clout for the first time in U.S. history by virtue of what tax revenues could mean for the size of its budget. The numbers make the point. Justified by war and largely funded by increased tax rates put into law by the 1916 Revenue Act, the Federal budget of 1917 amounted to a sum *almost equal to the total of all budgets from 1791 to 1916.*

Steel as the Foundation of the Early 20th-century U.S. Industrial Base

By many accounts, the Federal mechanisms created during World War II and the National Security Act of 1947, fueled by the 1950

National Security Council Report 68 (NSC–68), gave birth to the military-industrial complex. These ascriptions obscure a deeper understanding of its location in history and how today the classically conceived military-industrial base is no longer central to U.S. economic and national security.

The military-industrial complex evolved with accelerating industrialization in the late 19th century. The genesis can be said to have been during the Civil War, seeded by the railroad interests that had strong representation in Lincoln's war cabinet. Railroads provided the North with a war-winning logistical support capability. After the war, the Bethlehem Iron Company introduced the Bessemer process for converting iron to steel in 1873, followed by Andrew Carnegie's steelmaking start-up in 1875 at the Edgar Thompson Works.[12] Through these developments, rail made the transition from iron to steel.

Cheap steel rails substituted for those of iron, creating a continental market for this new technology, which in turn propelled further railway expansion. From railroads, steel made its way into modern boilers, ships, machine tools, heavy chemical manufacture, and bridge and urban construction. Inevitably, the ascent of steel would have military implications—especially for the Navy.

While the rise of American steelmaking in the 1880s was principally tied to the production of rails, the Navy started courting steelmakers. The military case was made by prominent navalists like Captain Alfred Thayer Mahan and Rear Admiral Stephen B. Luce. The first ships of what came to be known as the "steel Navy" were the so-called ABCD cruisers—the cruisers *Atlanta*, *Boston*, and *Chicago* and the dispatch boat *Dolphin*.[13] The first to launch was *Dolphin* in 1884, making her the U.S. Navy's first steel hull. The Navy would prove to be a reliable partner during depressions. For its part, Bethlehem Steel was by 1886 experiencing a poor market in rails and thus looking to diversify. The alliance between steel and the Navy was first embraced by the Democrats and Grover Cleveland in his first Presidency in the mid-1880s. Although Andrew Carnegie was morally against using steel for destructive purposes, his firm did business with the Navy anyway. When the Panic of 1893 depressed the rail and structural steel markets during Cleveland's second Presidency, Navy procurement was there in abundance to insure profitability for both Carnegie and Bethlehem Steel.

Steel also transformed the world of ordnance and gunnery. In 1883, the congressionally authorized Gun Foundry Board established gun factories for each Service. The Navy got authorization to use the Washington Navy Yard. Known familiarly as the Gun Factory, the yard shifted from anchor fabrication to forging cast gun casings and polished liner tubes, becoming fully operational in 1892. The Army got funding to upgrade Watervliet Arsenal in Troy, New York, which in 1888 began manufacturing and supplying 8-, 10- and 12-inch cannons for the Army's coastal forts.

In the 1890s with the rise of steel, the United States made the transition from a Civil War "'militia' theory of industrial preparedness . . . to an integrated system which was capable of meeting the peacetime demands of an expansionist nation functioning in a hostile international climate." Concludes naval historian Frank Cooling, "The needs of the U.S. Navy—like those of navies abroad—became central for stimulating industrial modernization."[14]

From the time of the Revolution and War of 1812 to the First World War, strategic threats to the Nation were deemed to come by sea. Strategic defense of the United States—purely a military function (involving an army, navy, and various state militias)—primarily relied on fortifications defending the Atlantic ports. At the turn of the last century, the new great power industrial capabilities enabled battleship navies to threaten U.S. national security. In 1900, the U.S. Navy decided that the German fleet was the main threat to the Western Hemisphere. As irrational as it may seem today, Washington had a real fear of battleship bombardment of the East Coast, akin to the Cold War fear of a nuclear exchange, a national paranoia more familiar to contemporary policymakers. As much as battleships were symbols of international power and ultimate instruments of sea control, they were also deterrents to that very threat of bombardment.

With the 1899 annexation of the Philippines, moreover, Atlantic sea control responsibilities extended to the Pacific. U.S. industrial capabilities had also reached the point where America could shift its strategic defense doctrine from a reliance on coastal defense to an offensive sea control doctrine provided by its own battle fleet. Sustaining such a fleet (or eventually fleets) required for the first time major peacetime military expenditures, a mobilized industrial base, and broad public support.

Established in 1900 to address such issues, the Navy's General Board was the Nation's first organization to plan for war in peacetime.[15]

To make the deterrence argument, the Navy League, founded in 1903, hoisted as its motto, "Battleships are cheaper than battles." Proponents of latter-day deterrence would make similar arguments for the comparatively costly Mutual Assured Destruction and its successors, the Strategic Defense Initiative (SDI) and National Missile Defense.

Entering a new century, America was coming to grips with the sense-making of burgeoning technological advance, industrial expansion, and its increasing presence on the world stage. Domestically, consolidation in the banking, steel, railroad, and oil industries was giving rise to antitrust Progressive policies to manage the relationships among big business and what would become 20th-century big labor and big government. In the military realm, the transition to the steel Navy generated attempts to align industrial base planning and U.S. national strategy.[16]

Steel was thus the foundation for the late 19th-century to mid–20th-century industrial base. Initially, it had a mutually reinforcing relationship with railroads for accelerated expansion. The steel Navy was the first evidence of the military component of this complex. (Not yet a "big system" Service, the Army would not become a player in the complex until World War I and the introduction of tanks and airplanes.) The matrix of interests based on steel and its applications for railroads (and later the auto industry) and the Navy, together with oil and finance, characterized what can be called the "industrial" phase of the economic element of national power. Its genesis occurred just after the Civil War and would continue to the end of the Cold War. Its organizational expressions tended toward vertical and horizontal industrial integration and were based on fixed and centralized hierarchies.

Meaningful alignment of industrial base planning and strategy would first materialize with the Preparedness Movement prior to the U.S. entry into World War I. Preparedness came with a new realization that war mobilization had to extend from Government-managed resource allocation and production to Government resourcing of the *technology* base as well—specifically, the new fields of electronics and aviation that did not yet have fully mature commercial applications.

Planning for Wars: The Base Extends to Technology

The 1912 elections came at a time when Progressive antitrust sentiment was strong. The trusts had been busy merging or acquiring

corporations. New York financier J.P. Morgan was deemed to be at the center of the trust networks, evidenced in the steel industry, the bedrock of the U.S. industrial base. In 1901, Morgan had bought out Andrew Carnegie and formed U.S. Steel. In the midst of the 1907 banking crisis, he had notoriously engineered U.S. Steel's acquisition of a controlling stake in its rival, the Tennessee Coal, Iron, and Railroad Company. U.S. Steel was now in the crosshairs from both ends of its supply chain. Ore producers wanted competitive buyers; railroad operators wanted cheaper rails.

Voters spurned the Republican variety of Progressivism that espoused centralized government power to counter the trusts. They went with Woodrow Wilson, whose approach appealed to small business and more populist democratic ideals. Wilson believed in a national economic policy to balance big business and competition—something that the trusts sought to eliminate. The Federal Government would police industrial self-rule. Wilson was ready to target steel, particularly U.S. Steel.

The President was also set to reform the perceived plutocratic hegemony of big finance made evident after the banking crisis—the Panic of 1907. Congress had put together a commission to reform the banking system with Rhode Island Republican Senator Nelson Aldrich in the chair. Although Aldrich had Morgan representation on his committee, his work pushed a banking reform that would divorce investment from commercial banking and inform the Federal Reserve Act, which established the Federal Reserve System in 1913.

Despite these apparent successes, the onset of war in Europe interrupted the national discussion of industrialism and Wilson's brand of Progressivism. Arguably, when war came to America, the national economy, despite the financial reforms, reverted to the very aspects of centralized financial and industrial power that had been so objectionable to the Progressives.

Ironically, the Preparedness Movement made this reversion somewhat palatable to the Progressive cause. Prominent in the movement was Theodore Roosevelt, who raised his voice in 1914 during the outrage over the atrocities committed by the German army against Belgian civilians early in the war. Other preparedness leading lights were Elihu Root, who had been Roosevelt's Secretary of War and State; Henry Stimson, who had served as William Howard Taft's Secretary of State; and a number of financial and industrial heavyweights like Morgan, Charles M. Schwab, and Pierre du Pont, not exactly regarded as cohorts of Progressivism.

Roosevelt linked his imperialist sentiments with his Progressivist ideals in an advocacy for what amounted to armor and ordnance production. As the peacetime Navy had demonstrated by translating rapidly advancing battleship technologies to ship characteristic requirements, service life was becoming secondary to projections for the life of technology. The stage was set for annual system procurements for an army in addition to a navy. War preparedness now required an industrial mobilization. Those heretofore isolationist Progressives, like future columnist Walter Lippmann and commentator/publisher Herbert Croly, saw preparedness in terms of its potential to advance the liberal Progressive agenda internationally. Others felt that preparedness would require an income tax that would soak the rich and thus serve the domestic Progressive agenda. They found support in the Wilson administration, notably Lindley Miller Garrison, Secretary of War in the first administration; Franklin Roosevelt, Assistant Navy Secretary; and Colonel Edward House, the President's personal diplomatic advisor during the war.

In an informal way, the war in Europe reestablished the trusts before America's war declaration. J.P. Morgan and Company served as the "money trust" by providing the Allies with loans guaranteed by Wilson. It also represented the British to the materiel suppliers in the Northeast and Midwestern industrial belt eager to export to Britain and France. The armor trust, U.S. Steel and Bethlehem Steel, would enjoy fixed prices, while war-generated profits abroad particularly benefited Bethlehem. DuPont, the "powder trust," would profit on explosives. With nitrates as the most important raw material for explosives and food production, DuPont had been able in 1910 to break the Anglo-German nitrate cartel in Chile and thus dominate the wartime supply.

War in Europe and its worldwide effects thus shuffled the deck and dealt a Democratic President a hand different than he had expected or wanted. Two years before the U.S. entry, German U-boats in the Atlantic had a devastating impact on American maritime commerce and presumed neutrality. While Wilson was trying to keep the country out of the war, the U-boat—not the German battleship fleet—induced the Navy and shipbuilding interests to activate a formal alliance between science and the military to deal with it.

The May 1915 German torpedoing of the passenger liner *Lusitania* with great loss of life finally prompted action. The Navy thereupon invited inventor Thomas Alva Edison to chair the Naval Consulting Board in an effort focusing on submarine detection. Edison picked

practical-minded engineers and industrialists for his panel, as opposed to scientists. By example, the board's Industrial Preparedness Committee was chaired by Howard E. Coffin, the vice president of Hudson Motor Car Company, president of the Society of Automotive Engineers, and a renowned standards and specifications proponent.

Earlier in the year, the Naval Appropriations Act had established a National Advisory Committee for Aeronautics (NACA) to undertake, promote, and institutionalize aeronautical research. The creation of NACA along with Edison's effort pushed scientists to form their own group in 1916 with major support from the Carnegie Corporation and Rockefeller Foundation, nonprofit entities that reflected the core of the early 20th-century U.S. industrial base and establishment. Called the National Research Council (NRC), it also undertook extensive research into detection of submarines. To this day, the NRC is housed under the National Academy of Sciences, which dates from 1863, another wartime era.

The establishment of the Naval Consulting Board, NACA, and the NRC represented the first steps in the American march toward modern, government-sponsored research—led by engineers, industrialists, and scientists.

At the behest of his Secretary of the Treasury, William Gibbs McAdoo, Wilson met the legendary Wall Street financier Bernard Baruch in September 1915 to discuss the need for and mechanics of actual industrial mobilization for war. A key fundraiser for Wilson's 1912 Presidential campaign, Baruch came with a solid background in raw materials and railroad financing and reorganization. By the time of the 1916 elections, Wilson had fully embraced Baruch's counsel and would run and win on the preparedness issue. The President was aware that under the national leadership in the private sector, preparedness was already under way. The U.S. Chamber of Commerce had been pushing the idea and had made the president of Jersey Standard, A.C. Bedford, chairman of its Committee on Mobilization.

In August 1916, Congress established the Council of National Defense (CND). Envisaged by Hollis Godfrey, a New York banker who was president of Drexel University, the CND was funded by that year's Army Appropriations Act and would ultimately absorb the Naval Consulting Board. The CND principals were Cabinet level: the Secretaries of War, Navy, Interior, Commerce, Labor, and Agriculture. Several

months later, Wilson appointed an Advisory Commission of engineers and professionals to provide links to finance, transportation, merchandizing, industrial science, industry, labor, and medicine and tapped Baruch to serve on the panel. While the commission had little power and some 100 committees, the significant ones were on transportation, raw materials, munitions and manufacturing, and general supplies. Representatives came from associations like the American Iron and Steel Institute. The Steel Committee, for example, was chaired by Judge Elbert H. Gary, a key founder of U.S. Steel and a proponent of an industrial self-policing concept called "new competition."[17]

The U.S. entry into the war brought increased demands for economic and industrial mobilization for total war. Within 4 months, Wilson reconfigured the CND's Advisory Commission into the War Industries Board (WIB). Among other things, the WIB was supposed to establish priorities for raw materials, set production quotas, fix prices, and determine wages and hours. However, it was not until Baruch assumed the chairmanship in March 1918 that the WIB began to exercise real authority. A firm believer in national economic policy to forge a government-industry partnership for war mobilization, Baruch looked ahead to implementation of a construct to position American corporations for global postwar expansion.

This American attempt at public-private industrial mobilization for war was similar to what had already happened in Europe. The great power belligerents were settling into a new kind of war—protracted and total. Input came into general staffs and their quartermasters from corporations and private industrial organizations that functioned on behalf of stockholders as much as the national interest. Before the war, the great powers patronized deliberate or command invention only for their navies. Once at war, they saw that the deliberate invention process had to also apply to development of land forces. Technology and industry offered 20th-century operational solutions for 19th-century armies. Not 2 months into the war at the first battle of the Marne, the French reinforced their lines using some 600 taxis to transport reservists from Paris to the front. The stalemate of trench warfare prompted increased military use of aircraft for artillery spotting. The internal combustion engine thus was accepted as a key warfighting technology with potential applications for new concepts like "land cruisers." Nevertheless, armies still lacked systems expertise. In Britain, the army

had to rely on the Bureau of Naval Design for the early development of land cruisers (tanks). It was not until the British Plan 1919 that the Service finally embraced the idea of command invention for tank innovation; by that time, however, the war had ended.

During the war, the Navy Department, having a good systems expertise with the steel Navy, had adjusted to the CND Advisory Commission. The Army, however, did not yet have an equivalent peacetime industrial mobilization planning capability that could lend itself to wartime surge. Thus, it had opposed the commission's effort. As a result, when it sent its troops into battle on the Western Front, they could only fight using French heavy equipment. Once it was clear that modern warfare had become mechanized and an arms race in tanks and planes was under way, the Army embraced the need for industrial planning for war. With war's end, however, the War Industries Board ceased operations. Its role in a wartime command economy was a notion too un-American for peacetime, notwithstanding the stresses of postwar readjustment. The Government did see strategic utility in supporting the aviation industry, however. It did so by having the U.S. Postal Service relieve the Army of its airmail service prior to the end of the war and letting contracts for a civilian-operated airmail service.[18] The program generated demand for airplane production and led to development of commercial passenger services.

In 1922, the War Department founded the Army-Navy Munitions Board (ANMB) for the two Services to coordinate planning and mobilization. The ANMB proved ineffective and rarely met. The Navy, having for decades had its own internal planning (the General Board) and industry liaison processes, ignored the ANMB. Undeterred, the War Department proceeded in 1924 to found the Industrial College primarily for the study of mobilization problems. Army planners had to convince the General Staff that plans had to be based on economic reality. This thrust led to the Industrial Mobilization Plan of 1930.

At the forefront of the Army embrace of planning was the Office of the Assistant Secretary of War's Major Dwight Eisenhower, who from late 1929 spent over 2 years of his career on the planning effort. His mentor was former WIB chairman Bernard Baruch, who had been instrumental in getting the office to establish the Industrial College. Eisenhower's work on the so-called M-Day Plan brought him to the attention of Major General Douglas MacArthur, the Army Chief of Staff, thus making his career. In a June 1930 *Army Ordnance* article written by

Baruch's "apt pupil" but bylined by his boss, Assistant Secretary Patrick J. Hurley, "Eisenhower explained that modern war was a conflict between economies; production of the weapons and supplies of war was as important as sound strategy and tactics."[19]

The M-Day Plan of 1930 was the first of four Army interwar industrial mobilization plans. The Service department and Service were not initially in sync, however. In the view of the Army General Staff, supply had to adjust to strategy, and the staff's subsequent Mobilization Plan of 1933 reflected this logic. The Office of the Assistant Secretary of War and the bureaus viewed the relationship in reverse. The later Protective Mobilization Plans of 1936 and 1939 thus adjusted strategy to align with the Nation's industrial potential, reflecting the verities that Eisenhower expressed in his *Army Ordnance* article and that would inform his approach both as a wartime military leader and Cold War President.

Entangled Expansionism: A Nation Not Ready

The Great War had drawn the United States into European entanglements and fueled an expansionism no longer bounded by America's continental coasts and two great oceans. Once entangled, the Nation would require a grand strategy.

As war clouds darkened in the last week of July 1914, British and French investors started to liquidate their U.S. holdings and convert dollars into gold in order for their countries to finance war. The move threatened a run on U.S. gold reserves and financial panic. The financial establishment was not prepared to go through a repeat of 1907—particularly just as the preventive measure to such panics, the Federal Reserve System, was being put in place. By his own account, Wilson's son-in-law, Treasury Secretary McAdoo, at the behest of the governors of the New York Stock Exchange, supported the exchange's 4-month closure to stop the trading of dollar-denominated securities, thus preventing further liquidations.[20]

The U.S. action forced European treasuries to exhaust their foreign exchange holdings, currency, and gold reserves to fund the spiraling carnage. Some countries issued instruments for sovereign bonded indebtedness to allow them to purchase war materiel from the United States and elsewhere. In 1914, the U.S. debt had been $3 billion, primarily to British creditors. By 1917, the Nation would be a net

creditor of roughly the same amount by virtue of underwriting $6 billion in war credits provided to the Allies. First evidence of the shift came suddenly in January 1915: as a consequence of the suspended trading on the stock exchange, gold was shipping from Europe to New York in ever-increasing amounts.

"American capital, by itself, could not buy the credibility needed to challenge sterling as international money—only the gold standard could."[21] By wedding America to gold, New York was able to rise above other principally European gold standard centers to become the postwar rival to London.

When the Great War finally ended, the European powers were prostrate. The Continent was in chaos—if not revolution. The Allies would present the Germans with a burdensome bill for $32 billion in reparations. Britain, France, Italy, and other countries owed the United States some $9.5 billion for their wartime loans. The British costs of war required them to liquidate their overseas investments. With the United States emerging from war as a creditor nation, American finance was primed to step into the breach. The Nation was now in a position to complete the shift of international finance from London to New York.

When Wall Street initially had made overseas private investments, they tended to be hemispheric—in Canada and Latin America. American financiers now recognized an expansive potential to capitalize on the opportunities presented by European reconstruction. Loans to help resolve German war reparations could create markets for U.S. corporations, enabling them to pursue export-led growth. Wall Street representatives to international negotiating teams could help establish forward-leaning Anglo-American bilateral regimes (for example, governing oil) and refashion the international monetary system, which heretofore had been dominated by Britain.

Domestically, the war had accelerated change in America. While Europe was in ruin, this nation was bursting with potential. Gross national product had doubled. The population had migrated from the farms to the cities—the United States was now over half urban. Industrialization had advanced. In the rural areas, the introduction of farm tractors generated a shift from family farms to agribusinesses. Developed in the late 19th century for the sewing machine and typewriter industries and then applied by Henry Ford to automobiles, the U.S. mass production capability was without peer in Europe. America could

look to a robust postwar world economy, confident that it had the organization, credit, raw materials, ships, and industrial base to restore economic stability and employment on both sides of the Atlantic.

The war had also revealed within that base an emergent community of scientific and capital-intensive industries closely aligned with Wall Street and poised for postwar growth. It was now possible to speak of a techno-industrial base of large-scale firms—in chemicals, radio, and electronics. In 1922, these interests organized around the Institute of Economics, which later became the Brookings Institution, named for Robert S. Brookings, who had served on the War Industries Board. Similar private sector–led efforts had resulted in establishment of such entities as the American Petroleum Institute in 1919 and the Council on Foreign Relations in 1921. The United States was preparing to take its associationalist ideas abroad.

This expansionist drive did, however, expose a fault line in the U.S. political economy. Postwar "readjustment" was stressing civil societies, even in America; in the years 1920–1921, the United States experienced inflation, strikes, and depression. The populist movement railed against the New York bankers, particularly those associated with J.P. Morgan and Company, for entangling the Nation with the European Allies as the result of their wartime loans. Representing a more traditionally minded community of interest were the non–petroleum extractive industries and their small business allies, which remained primarily geared to the domestic economy. This community was isolationist. The immediate postwar Washington policy debate was over American participation in Woodrow Wilson's League of Nations. Lawmakers divided into hostile camps of isolationists versus internationalists—that is, those who identified with the apparent beneficiaries of war.

The league had been a U.S. war aim. It became so through a deliberative process that began several months after America entered the war when Wilson ordered Colonel Edward House, his informal national security advisor, to assemble and chair a group of leading academics to study war aims and peace plans. The hundred-odd group worked from the New York City headquarters of the American Geographical Society. Key participants in "The Inquiry," as it was known, included Isaiah Bowman, the society's president and a geopolitical theorist comparable to Britain's Halford Mackinder, and Walter Lippmann. From their efforts came Wilson's peace plan for the

Versailles Conference, the January 1918 "Fourteen Points." Some two dozen Inquiry members served on the American delegation.

The internationalist voice of Wall Street regarded the German reparations program demanded by the Allies in the Versailles peace treaty as a radical mistake. American financiers deemed Germany central to European reconstruction. Evidence of this assessment was in the work during the 1920s at the Council on Foreign Relations. By far, the preponderance of council studies focused on Germany.[22] With the 1924 Dawes Plan and its follow-on in 1929, the Young Plan—both international attempts to resolve the German defaults on reparations payments—it was representatives from the private and central banks who crafted the international repayment plans that provided for Germans to use a cycle of money originating from U.S. postwar loans to repay reparations. The committee responsible for the latter plan was led by an American, Owen D. Young, president of General Electric, founder and president of the Radio Corporation of America, and coauthor of the predecessor Dawes Plan. Among the Young Plan's provisions was agreement to establish a Bank of International Settlements (BIS) to assume responsibility to collect, administer, and distribute the annuities payable as German reparations. The BIS was a trustee for the Dawes and Young international loans issued to finance reparations. Today, the Basel-based BIS is an intergovernmental organization of central banks that furthers international monetary and financial cooperation and serves as a "bank for central banks."

Unfortunately, the Wall Street crash of 1929 collapsed the repayment system and led to the shattering of world trade. The isolationists in Congress succeeded in passing the harshly protectionist Smoot-Hawley Tariff of 1930. Although President Herbert Hoover opposed the measure, Republicans in Congress successfully pressured him to sign it into law. Protectionist repercussions abroad further deepened the Depression, finally unraveling the international economic system based on the gold standard. In 1931, its 19th-century financial hegemon, Great Britain, chose to devalue the pound and abandon the standard to staunch a run on British gold. Hoover did not follow suit. Foreign investors assumed he would and generated a run on American gold. Instead, he had the Federal Reserve raise interest rates to entice foreigners to leave their dollars in U.S. banks. The following year, in Ottawa, Canada, the British concluded a preferential tariff and trade

agreement for the Empire's pound sterling area that reversed Britain's policy of free trade. Germany and Japan responded by erecting their own trade barriers. Franklin Roosevelt came to the Presidency in 1933 vowing to break with Hoover's internationalist-inspired monetary policies. In his First New Deal, he adopted the stance of an economic nationalist and took America off the gold standard.[23] What followed was a breakdown of the international monetary system followed by the rise of imperial or regional blocs.

In the midst of the Great Depression, America turned inward. Internationalism was in retreat. Republican isolationist ire intensified against the forces that appeared to have led to the economic malaise and given rise to the centralized New Deal bureaucratic players characterized as big government, big business, and big labor. The Progressive Republican Senator from North Dakota, Gerald Nye, launched into an investigation of wartime profiteering sponsored by the War Industries Board. The Special Committee on Investigation of the Munitions Industry, or Nye Committee, ran from 1934 to 1935. Among its concerns were the perceptions that the United States had entered into some sort of commercial alliance with Britain and that the pursuit of preparedness had taken America down the road toward a warmaking German model of concentrated economic power. The impact of the Nye investigation led to the passage of the four Neutrality Acts of the late 1930s, whose various embargoes only ended with the passage of the Lend-Lease Act of 1941. For the balance of the 1930s, Populist forces and the Depression arrested attempts by Washington and Wall Street to reinstitute internationalist economic policies, even as Roosevelt was shifting in that direction with the so-called Second New Deal. The United States would not reengage with Europe, even in the face of the manifest threat to world peace presented by Nazi Germany.

Instituting Techno-industrial Governance: From War Mobilization to Deterrence

Despite the macro-level anti–New Deal and isolationist criticisms of centralization and centralized planning, interwar mobilization planning nevertheless continued. Accordingly, once war came, military-industrial relations would be better than they were in World War I, except in the minds of left-wing New Dealers, labor, and small business.

In mid-1939, just prior to the outbreak of war in Europe, Roosevelt put Bernard Baruch in charge of creating an advisory War Resources Board (WRB) around his mobilization and planning ideas. Baruch likened the WRB to the CND and felt that it should be put under his authority. Roosevelt was not prepared to go that far and wanted Edward Stettinius, Jr., a Wall Streeter who ran U.S. Steel, to chair the board.[24] While the WRB enjoyed the support of the National Association of Manufacturers and the U.S. Chamber of Commerce, liberal Democrats saw it as a Morgan entity and forced Roosevelt to kill it in November 1939.

After the fall of France in May 1940, Roosevelt resuscitated the CND Advisory Commission. That summer, just after the Republican National Convention, he added Republicans Henry Stimson and Frank Knox to his Cabinet to present a bipartisan, coalition face to his internationalist policies. In turn, Stimson and Knox brought in the New York lawyer Robert P. Patterson, while FDR secured James V. Forrestal, another Baruch associate. Forrestal's effectiveness derived from his Wall Street background. Prior to coming to Washington to serve as the Navy Under Secretary, Forrestal had been president of the investment bank Dillon Read, a Wall Street institution whose networked reach into Washington in the first half of the 20th century was analogous to that of Goldman Sachs today.

A January 1941 executive order formally established the White House Office of Production Management (OPM), which would be led by a director general, General Motors executive William S. Knudsen. Initially, Knudsen was not able to engage the steel and automobile industries, which were not inclined to shift civilian auto production to defense. With the Lend-Lease program for the Allies, things changed. Enacted in March 1941 and initially run by Stettinius, Lend-Lease provided material support primarily to Britain and France and formed the basis, in terms of transatlantic personal and business relationships, of the Bretton Woods Agreements and the Marshall Plan. Defense orders now came to heavy industry. In 1941, three-quarters of all OPM contracts serving the "arsenal of democracy" and Lend-Lease went to the big corporations.

Once America was in the war, the civilian mobilization structure Roosevelt created became confused and convoluted. In an attempt to resolve the confusion, he established in early 1942 another White House mobilization entity, the War Production Board (WPB), led by Sears Roebuck executive Donald Nelson. His efforts were not wholly

successful. He was confounded by the military departments. War and Navy had likewise built their own mobilization structures, which proved to be more effective than those of the White House, largely due to their respective Under Secretaries, Patterson and Forrestal.

The White House effort on the research and development (R&D) front was more successful. The threat of war had prompted Roosevelt to consider a concept for a Government-sponsored research entity focused on air defense, called the National Defense Research Committee (NDRC). The idea originated from Vannevar Bush, president of the Carnegie Institution and founder of Raytheon. Roosevelt made Bush the NDRC director with direct access to Presidential funds without congressional oversight. The NDRC work plan was tagged "federalism by contract." Grants went to private research bodies whose researchers would not work for the Federal Government per se but rather would remain with their organizations to form a national research network. The arrangements were similar to those made by the National Advisory Committee for Aeronautics with its network of universities. From June 1940 to April 1941, $3 billion went to the NDRC principals' companies and institutions, something government ethics laws would restrict today.

In developmental terms, as its title stated, the NDRC was a *research council* reporting to the President. It needed firmer legal ground. In May 1941, Bush was able to get Roosevelt to establish the White House Office of Scientific Research and Development (OSRD), which absorbed the NDRC. Subsequent legislation bestowed statutory authority and congressionally appropriated funding. The new name made it a *research and development office*—an organization reporting to the President. As such, it now had authority to prototype small numbers of weapons.

At the highest levels, scientific advances and technological development now fed into policymaking and in turn were themselves fed by massive funding in a command innovation partnership that owed its power to OSRD. Reporting directly to President Roosevelt, its director, Vannevar Bush, was now a czar with almost unlimited budgetary authority. By 1944, OSRD was funding projects to the tune of $3 million per week. Money was going to some 6,000 industrial and university researchers at over 300 labs. In addition to radar and radio-controlled fuzes, the wartime OSRD-backed labs would give the Nation missiles, mass-produced penicillin, and the atomic bomb.

Roosevelt, however, wanted responsibility for the Manhattan Project, the initiative to develop atomic weapons, to go to an organization

other than OSRD. He chose to bury it in the Army budget for the Corps of Engineers. Manhattan thus became the Nation's first "black" program. The Army now had another arsenal and armory system that promised to be exponentially greater than small arms and ordnance production. Undoubtedly, the Army bureaucracy would survive postwar demobilization and indeed prosper with a capital-intensive atomic weapon strategy. For the first time, the Service potentially could have a new industrial configuration that would rival the Navy's. If the bomb worked, it was all about the bang. Then would come the question of the delivery system—which weapons platform could best serve to put it on target. Initially, it was deemed to be aircraft; in the end, it would be missiles.

By 1944, it was clear that the military had been organizationally looking ahead to the postwar period. Mobilized defense manufacturing of aircraft and ordnance on a continental scale in the United States had given life to a victorious warfighting strategy. Vannevar Bush did not see a near-term value in missiles and rocketry, but the chief of the Army Air Forces, General Hap Arnold, did, and he took steps to build a separate network of scientific support within his Service. Arnold instituted his own OSRD-type organization in the Army to advise him: the Special Bombardment Group. It was led by the Massachusetts Institute of Technology's (MIT's) Edward Bowles, who was scientific advisor for radar and communications to Arnold and Secretary of War Stimson. "For Bowles, the source of the Army's power would lie in postwar military budgets, likely to reach record levels for peacetime."[25] In the fall of 1944, Arnold, now a five-star general, formed the Scientific Advisory Group chaired by the California Institute of Technology's Theodore von Karman to explore rockets. These efforts by Arnold and Bowles would give birth to RAND, which would become the preeminent think tank for nuclear strategy and deterrence for over three decades.

Washington military planners and policymakers in 1945 were emerging from a global war with hard-won insights. In a purely military sense, they saw that the world had entered an era with a new strategic threat: that of offensive strategic airpower. Meeting it would require a national security paradigm supported by a more formalized peacetime preparedness alliance of government, science, industry, academe, and the military. The environment required new national security structures and processes for planning and resourcing a strategy to maintain a postwar peace and American prosperity. What emerged was a national security establishment that would last through the end of the Cold War.

Once the end of World War II was in sight, the Roosevelt team began to plan for transforming the economy for a return to peacetime. During the war, the driver of the economy was military procurement. The Navy Department under Secretary James Forrestal led the thinking. Forrestal chose a Wall Street colleague from his Dillon Read days, Ferdinand Eberstadt, for this transition task, and for good reason. Even in the early stages of the war, Eberstadt as Army-Navy Munitions Board director had oriented his agency toward the long term—precisely the direction needed to ensure a smooth shift to peacetime production and postwar national policy and organization. Forrestal charged Eberstadt with preparing a report on how to structure that transition.

Thus empowered by Forrestal, Eberstadt assembled a gifted team of Naval Reserve officers and others who had Wall Street backgrounds and Ivy League credentials. Viewing structural problems with a financial lens, he applied Wall Street verities to his designs for solutions.

Eberstadt and Forrestal, as well as Clark Clifford, the Naval aide upon whom President Harry Truman relied for national security insights, saw the world entering a new era with no distinction between war and peace. Eberstadt thus saw atomic-age mobilization as a continuous state, occurring even in peacetime. "Eberstadt's plan would create paths through which business could dominate national security. It recommended formal cooperation between the state and major economic power blocs."[26]

The Eberstadt team presented its report to Forrestal in September 1945. The document became the basis for the National Security Act of 1947, which, among other things, provided for a national security structure resting on three pillars: a National Security Council (NSC), a Central Intelligence Agency (CIA), and a largely forgotten third pillar, a National Security Resources Board (NSRB). "The National Security Council became the keystone of Eberstadt's coordinate system."[27]

His vision was resource-driven. The NSC was to serve as an interagency vehicle to weigh options and advise the President on aligning strategy with the allocation of resources for industrial mobilization coordination. The CIA would provide it with foreign resource assessments for competitive strategies. The NSC would collect its domestic inputs for such strategies from the NSRB, the "basic mechanism to balance the nation's supply of resources with its military demands."[28]

Far from being an unfamiliar idea, the NSRB echoed Eisenhower's conception of an industrial mobilization planning agency as provided

by the Army's interwar M-Day Plans.[29] Specifically based on the examples of the World War I–era War Industries Board and the World War II War Production Board, the NSRB was a carryover from the various civilian entities in the White House for wartime mobilization. It reported directly to the President. In policy formulation, it was intended to be the NSC's equal. The NSRB chairman was a civilian appointment requiring Senate approval. Inspired by the influential Bernard Baruch, Eberstadt "considered this agency as the key mechanism to connect [Department of Defense] unification to a larger corporate political-economic organization by coordinating military, industry, labor, and business in a national security program."[30]

Truman and the left-wing New Dealers were suspicious of the NSRB. The President would not go so far as to make it into a War Production Board in line with the intent of its architects, Eberstadt and Baruch. Instead, he wanted it to be merely a body to coordinate mobilization plans across government. In December 1950, 6 months into the Korean War, Truman declared a national emergency and by executive order established the Office of Defense Mobilization (ODM), an independent White House agency that absorbed the responsibilities of the NSRB.

Because of its potential impact on collective bargaining, Korean War mobilization was not fully accepted by labor, whose representatives left various government mobilization boards. In 1952, the crisis over mobilization came to a head in the steel sector, where collective bargaining was failing. Industry hung tough, and labor went into a strike mode, an action that threatened to disrupt the steel supply and cripple the war effort. Truman responded by nationalizing the steel industry in the interests of national security. In late April, he seized the mills. A legal case resulted and quickly went to the Supreme Court. The President ultimately lost in the landmark Youngstown Sheet and Tube Company court decision 2 months later.

The Youngstown decision killed Presidentially led mobilization. Notwithstanding his attempted force majeure in the steel sector, Truman was philosophically uneasy about the NSC and NSRB. He and the New Dealers on his left saw in the NSRB and ODM structures for Wall Street's corporatist managerial elite. Thus, the NSRB never functioned as intended.

Whereas Truman failed to nationalize steel, the United States was far more comfortable in nationalizing the new technology of atomic energy in 1945. Civilians, not the military, controlled the postwar

successor to the Manhattan Project, the Atomic Energy Commission (AEC). The AEC management culture was more scientific/academic than corporate—that is, it was without overt and obvious profit and labor concerns. The atomic energy enterprise was gigantic. Some 120,000 employees had worked on the wartime Manhattan Project. The AEC was in effect a government-sponsored monopoly. The cover story of the January 14, 1952, issue of *Time* magazine tells the tale. Titled "The Atom: The Masked Marvel," the article introduced a snapshot of the AEC with the following profile of its commissioners:

> These almost unknown men are responsible for making the weapon that holds in check all-out Communist aggression. They spend billions of public funds, tie up a good part of U.S. scientific and business brains, and operate an industrial empire that may be the pioneer of a new technological era. The AEC controls a land area half again as big as Delaware—and is growing more rapidly than any great U.S. business ever did. Its investment in plant and equipment ($2,174,000,000) makes it bigger than General Motors Corp. At the end of its present expansion program, it will be bigger than U.S. Steel Corp. and General Motors combined. AEC will soon ask for (and probably get) another $6 billion. When this chunk of money is spent on new, strange, secret and dangerous equipment, the AEC will be bigger than the Bell Telephone System, now the largest business organization in the U.S.[31]

Truman's successor, Dwight Eisenhower, finally abolished the NSRB with his national security reorganization in 1953 and transferred its responsibilities to the Pentagon. "[T]his vital corporatist agency [the NSRB] had seemingly been removed from the national security system. In fact, industrial mobilization planning, stockpiling, contracting, and research and development functions shifted to the defense establishment. Assistant defense secretaries and a collection of functional defense agencies replaced the NSRB."[32]

Mobilization may have failed conclusively in the postwar era as something managed by civilians at the Federal level in the White House or an independent agency, but the concept did not go away. Ironically, along with the AEC, it survived under another structure and another name: Pentagon acquisition. The mammoth postwar aerospace and

missile programs would thus be housed in the Department of Defense (DOD), effectively a government-sponsored monopsony.

Taken together, it was the mortal urgencies of the Second World War, atomic age, and Cold War that sharpened the concept of a U.S. techno-industrial complex around the postwar conception of a *defense* industrial base.[33] This base supported a perpetual "peacetime" mobilization. Essentially, DOD and the AEC—the forerunner to the Department of Energy—acquisition would ultimately provide the material linkage between the defense industrial base and national security strategy. The size of the Pentagon R&D and procurement budgets relative to those of other departments and agencies was the expression of a U.S. techno-industrial policy—albeit without a name. Throughout the Cold War, Pentagon acquisition would be the government driver for science and technology innovation and a government-created market for aerospace, electronics, and nuclear weapons. In an era of postwar growth, this policy was justified by this market's capability to "spin off" a succession of technologies into the commercial sectors well into the 1970s.

Distinct from the approach taken by the previous Democratic administrations, Eisenhower made no pretense of attempting to manage any peacetime mobilization in the White House. The AEC would continue to administer and fund programs to develop and produce atomic bombs and ultimately nuclear warheads. The Pentagon would exercise responsibility for the means of delivery and the broad range of other complex weapons system programs via defense acquisition.

Upon coming to the Presidency in 1953, Eisenhower initiated the Solarium discussions, which were led by his closest security advisors. Their object was to craft a more affordable national security policy than the national security expenditures supporting Truman's NSC–68, which, along with the costs of the Korean conflict, were busting the Federal budget. The findings of the various Solarium task forces informed a policy to build strong strategic offensive and continental defense capabilities. The resulting policy, outlined in NSC–162/2, was sold as the administration's "New Look." Galvanized by the unexpectedly rapid Soviet advance in atomic weapons, NSC 162/2 recognized that the U.S. nuclear superiority and capability for a retaliatory strike in response to a surprise Soviet strategic attack would not last for long. In a January 1954 speech at the Council on Foreign Relations, as the administration finalized its fiscal year 1955 budget, Secretary of State John Foster Dulles articulated this first real U.S. nuclear strategy, tagging it "massive

retaliation." Any Soviet aggression or attack on the United States or its allies would trigger an all-out nuclear attack on the Soviet homeland.

The council, however, received the speech badly.[34] Despite the wisdom of Eisenhower's vaunted "great equation," which sought to balance policies seeking simultaneously to provide security and prosperity, council members regarded the strategy as dangerously restricting policy options. That November, it convened a study group on nuclear weapons and foreign policy led by government attorney Gordon Dean, the former chairman of the AEC. Said Dean with regard to the urgency of such a study, "For all practical purposes we have in terms of nuclear capabilities reached a point which may be called 'parity.'"[35] In the council's view, parity deprived massive retaliation of its credibility.[36] Dean's study director was Harvard's Henry Kissinger. His panel included some heavy hitters in the evolving field of nuclear strategy, notably NSC–68 architect Paul Nitze, Robert Bowie of the State Department's Policy Planning Staff, and Army Lieutenant General James Gavin. Also participating in the study was Republican Presidential hopeful David Rockefeller, who was with Chase Manhattan Bank, representing New York's financial establishment.

In early 1956, the study group reported its findings with an endorsement of gradual employment of force and arguments that would form the basis of limited nuclear war concepts and shape nuclear strategy into the 1960s. This material reached a wider audience via Kissinger's book *Nuclear Weapons and Foreign Policy*, a surprising 1957 bestseller. Among the key findings in the study was the realization that all-out nuclear war demands the use of "forces-in-being"—in other words, industrial mobilization for war in the nuclear age was no longer a viable concept. "The only way we can derive an advantage from our industrial capacity is by utilizing it *before* the outbreak of war."[37] Thus, the transformative impact of nuclear weapons meant that the two geostrategic adversaries would be fighting the Cold War not with their militaries on a battlefield but rather with their techno-industrial bases in a peacetime chess match. "The goal of war can no longer be military victory, strictly speaking, but the attainment of certain specific political conditions which are fully understood by the opponent."[38] In the nuclear era:

> [t]echnical skill and ingenuity were devoted to the design and production of offensive weapons, reducing the opportunities for enemy defenses, but in the process also reducing the demands of professional military talents. . . . The problems of national defense were those of the management of

> technical innovation, large-scale engineering projects and far-flung organizations, and of the formulation of a credible doctrine for the employment of the means of unprecedented destruction. The responsible politicians turned to civilian specialists to provide guidance and assistance.[39]

The think tank RAND become "the spiritual, and often actual, home of the new strategy." In a widely read book published in 1960, RAND said, "Essentially we regard *all* military problems as, in one of their aspects, economic problems in the efficient allocation and use of resources."[40]

Engaged Expansionism: A Nation Now Ready

The Dean study group expressed a deeper, irrefutable ground truth. The position of the established community of interest recognized that the Nation was now inextricably internationally entangled, whether the isolationists liked it or not. Nuclear parity meant America could not retrench behind two oceans as it had done after World War I, despite the financial sector's engagement with Europe in the 1920s. In any event, after the loss of China and the Korean War, the isolationists had morphed into unilateral interventionists more inclined to pursue an expansionist policy in the Pacific than to support Wall Street Atlanticism. The debate over nuclear strategy for the remainder of the Cold War would take the form of whether to emphasize pursuit of nuclear superiority or arms control.[41] Eventually, the policy would devolve to what Paul Nitze called "dynamic stability." Both geostrategic contenders in the nuclear arms race, in his view, would come to accept the "lack of need for significant change over time by either side."[42]

As long as postwar growth continued, the community of interest so triumphant in 1956 believed it could apply Eisenhower's "great equation" with guns and butter, both to wage cold war against the Soviets and to reinvent the world in America's image. The Soviets had sunk their money into guns into Eastern Europe and made the costly decision to go nuclear. The U.S. defense industrial economy in the 1950s had the leverage to outspend the Soviet Union on guns to the extent that it would have precious little left for butter at home, much less to apply for policies in the Soviet Bloc or abroad.[43] In the late 1950s, the Soviets nevertheless tried to do so by advancing a series of economic and disarmament initiatives. Eisenhower's trusted propagandist and psychological warfare specialist C.D. Jackson took the stance that U.S.

policy should force the Soviets to spend money on arms to prevent them from releasing it for foreign aid.[44] Jackson's view was informed by a grand strategy that was in the making during World War II and harkened to the Wilsonianism of World War I.

When war once again had come to Europe in September 1939, the Council on Foreign Relations launched what it called the War and Peace Studies Project. This effort performed the same task in the wartime 1940s as did the American Geographical Society's Inquiry for Postwar Planning during World War I. A key player was a major Inquiry participant, Isaiah Bowman. A geostrategic thinker in the Mackinder mold, Bowman, a week after Pearl Harbor, said of America that the "Arsenal of Democracy" "cannot throw the contents of that arsenal away [after the war]. It must accept world responsibility."[45]

In 1940, the project arrived at the conclusion that a German-dominated Europe was more self-sufficient than the Western Hemisphere—unless America could configure another wartime sphere with the British Empire and Far East. The study continued its line of reasoning to argue that the U.S. national interest now necessitated free access to the markets and raw materials in the British Empire, Western Hemisphere, and Far East. In other words, the war required the United States and Britain to move beyond Depression-era protectionism and economic nationalism. The project's aide-memoire dated 24 July 1941 on a so-called Grand Area concept proposed a sphere of interest to include the Western Hemisphere, United Kingdom and Commonwealth, Dutch East Indies, China, and Japan. Key was the additional language proposing that lasting integration be achieved by international financial institutions to stabilize currencies and by international banking institutions to invest in development. Essentially, these proposals would create an international system of payments—which was lacking after the interwar abandonment of the gold standard and the disastrous attempt at floating rates that followed. They would build on the Bank of International Settlements established under the 1929 Young Plan, and they would find their way into suggestions made in February 1942 for an International Monetary Fund (IMF) and World Bank. This language was an early enunciation of U.S. postwar strategic goals.[46]

The 1944 Bretton Woods monetary and financial conference in New Hampshire formalized these proposals. Bretton Woods built upon the contractual and personal relationships solidified via the Lend-Lease Agreement. What emerged from the gathering were agreements

that established a regulated postwar world economy. In addition to the IMF and World Bank, these accords provided for the Inter-American Development Commission and ultimately the General Agreement on Tariffs and Trade (GATT) upon which to base multilateral trade. For the next several decades, the preponderance of U.S. capital would enable the IMF to oversee the international monetary system. The keystone of Bretton Woods was the agreement that the postwar international monetary system would have fixed exchange rates based on the full convertibility of national currencies into the dollar, pegged at a rate of $35 per ounce of gold, the price set by the 1934 Gold Reserve Act. The dollar would thus serve as the global reserve currency for the world's central banks—in other words, an international monetary system based on the dollar standard.

When America triumphed in World War II, it became a nation with supreme power—military, industrial, and monetary. Informed by the War and Peace Studies discussions, U.S. strategic objectives in the broadest sense were internationalist:

- restore Europe
- establish a world economic and monetary system
- obtain worldwide access to raw materials
- create a favorable climate abroad for U.S. goods, services, and investment
- reduce global tensions.

The war had revealed that the locus of the American industrial base had shifted from extractive industries to manufacturing, as well as toward a structured relationship to government-sponsored R&D for military applications. Extractive combines were now looking overseas for raw materials; agriculture was looking to sell its surpluses abroad. For manufacturers, an economic policy of export-led growth would allow them the freedom to produce by creating a market for their goods. As was the case after World War I, investment banks and capital-intensive firms and their allies in labor and organized agriculture saw in prostrate Europe opportunities for expansion.

The Marshall Plan for European reconstruction met and mutually reinforced foreign and industrial policy objectives, essentially revisiting the frustrated policies of the post–World War I internationalists. The United States would now seed Herbert Hoover's associationalist ideas in Europe and around the world. It would replicate the American

managerial and political-economic system to put right the Old World and its empires and keep international order.

Of course, the deepening Cold War interrupted the process. To these strategic goals, the grim acknowledgment that the Soviet Union was already America's postwar geostrategic adversary necessitated another policy objective: containment. The Soviet demonstration of an atomic weapons capability in 1949 and the means to deliver nuclear warheads to the American homeland in the next decade shifted the U.S. strategic priority to national security in what policymakers would characterize as a bipolar world. The paradigm for strategic defense of the homeland and the "West" would remain into the 1980s—even as the world became politically and economically polycentric in the 1960s and 1970s.

Despite the vaunted bipartisanship of the World War II years, this grand strategy had its opponents—generally Midwestern Progressive Republicans, most notably Ohio Senator Robert Taft and Indiana Representative Charles Halleck. Like the interwar isolationists, they were hostile to the Atlanticist bent to U.S. foreign policy. They put priority on the Pacific and Far East, where they saw America as able to function unilaterally. These areas were at the farthest reaches of the crumbling European empires. Along with China, they were potentially the primary suppliers of resources for America. When Mao Tse Tung's Communists came to power in 1949, these opponents of the Atlanticist grand strategy turned from isolationism to unilateral interventionism, believing that—vis-à-vis the Soviet Union—the preservation of American nuclear superiority would enable unilateral interventions. This difference in point of view in the 1940s and 1950s illustrates how those reflecting the community of interest among the extractive industries and attuned to the strategic importance of access to raw materials were not entirely on the same page as those representing another community of interest—the financiers, manufacturers, and traders. Grand strategy during the Eisenhower period required a balancing act for the crafting of his "great equation."

During the early 1950s and into the Eisenhower years, a number of study groups generated papers suggesting directions for the country, akin to what had been done with Woodrow Wilson's World War I Inquiry and the Council on Foreign Relations' World War II–era War and Peace Studies Project. Eisenhower strategist C.D. Jackson put together in late 1954 a high-level conference in Princeton that brought the fruits of these studies together.[47] The Eisenhower-era preference was to promote private investment approaches as an alternative to public development projects

characterized by residual New Deal thinking. These efforts by Jackson were to form the basis of America's world economic policy for the balance of the decade and into the next. MIT economists Walt Rostow and Max Millikin collated and published the Princeton findings. Framing them as constituents of a global development project, Rostow and Millikin offered them to the Third World as an alternative to European imperialism and neocolonialism and to the Communist bloc as an alternative to costly struggle with the West. Millikin and Rostow were proposing a threefold approach: a Marshall Plan for Asia, a mutual security program for Latin America, and foreign aid for everywhere.[48] Eisenhower's successor, John F. Kennedy, would eventually modify and pursue these ideas when the Nation began to look beyond Atlanticism in the 1960s.

After the 1961 Berlin and 1962 Cuban missile crises, the United States and the Soviet Union were able to settle many of their geopolitical issues, stabilize the strategic balance, and manage their (by then mutually accepted) spheres of interest.[49] Yet the apparent strait-jacketing of Soviet-American relations fostered discontent in Europe, particularly in West Germany and France, and in China. Both Cold War "poles" of the globe chafed at having to live under an imposed bipolar division. France and China commenced atomic weapons testing in 1960 and 1964, respectively. In 1970, West German Chancellor Willy Brandt pursued rapprochement with the Soviet bloc through his *Ostpolitik*. By that time, the Soviets and Americans were managing—to a degree—their escalating strategic arms race, arguably a costly nuclear parity all along, as they struggled toward and then away from détente.[50] Yet they had been colliding in the Third World for the better part of the 1960s. There, the Soviets had underwritten (with both rhetoric and aid) various proxies in so-called wars of national liberation. The Kennedy administration had responded by exporting the New Frontier via Walt Rostow's widely cited model of economic growth and industrial development as a containment mechanism. The inextricable collision—at least for America—came in Southeast Asia, where the United States committed itself to South Vietnam without a strategy for defeating an enemy and consequently squandered its blood and treasure.

The costs of the Vietnam War escalated during President Lyndon Johnson's watch and led to dramatic increases in U.S. inflation and deficits that stressed the international monetary system. Germany, France, and Japan, whose strong economies had appreciated their currency values against the dollar, held major dollar surpluses. The

situation continued to worsen into the administration of Richard Nixon. Fearing these U.S. deficits would reduce the value of their holdings, they had started exchanging dollars for gold. Nixon had the Federal Reserve continue to print money to stabilize the currency. By mid-1971, Germany, Switzerland, and France were opting unilaterally to leave the Bretton Woods system, further accelerating the run on American gold.

In August, Congress recommended devaluation, and Nixon closed the gold window, put in place wage price controls, and introduced an import quota. Critics were quick to accuse him of not consulting with the allies, although governments had already ceased to coordinate their monetary policies. It was clear that the Bretton Woods system would not survive. While the United States was still at the center of the system, Europe and Japan were now credible rival centers of international economic power.

The so-called Nixon shocks of August 1971 further deteriorated relations among the United States, Western Europe, and Japan. The President's New Economic Policy of 1971 unilaterally devalued the dollar, demonetized gold, and raised U.S. tariffs. His critics accused him of returning America to a policy of disastrous isolationism and protectionism. In part, Nixon's economic nationalism was intended to help U.S. exporters and manufacturers, who were competing with foreign imports, as was his introduction of a 10 percent import surcharge that disregarded GATT. But it did not necessarily help the multinational corporate and banking interests.

Nixon's demonetization of the dollar returned the world to the dangerously unstable system of floating exchange rates of the 1930s. Yet the circumstances were significantly different in two respects. First, in the 1930s, the United States may have gone off the gold standard by devaluing the dollar, but it still pegged it to gold at $35 an ounce. In the 1970s, when Nixon cut the dollar loose, it was truly floating. Second, in the 1930s, the international system had fractured into economic and monetary spheres of interests. In the 1970s, however, the dollar was ubiquitous as the world's only international reserve currency. With that realization came another: one country alone could determine the direction of international monetary policy, and that country was the United States.

The Cold War Endgame and the Primacy of Monetary Strategy

Nixon's sharp reversal of American monetary policy, which struck the decisive blow that felled Bretton Woods, prompted a reaction

among the internationalists. The theoretical origins to inform that reaction came from Columbia University's Zbigniew Brzezinski. Writing in 1970, Brzezinski said that U.S. policy must shape a new world monetary structure. The United States must further abandon restrictions on American corporations operating foreign subsidiaries and plants in favor of a "truly international structure of production and financing." Finally, policy must reflect a theory of international production to supplement theories of international trade.[51]

Brzezinski was representing the coming of age of so-called transnational or multinational corporations. These private international actors often functioned according to their own interests and priorities—as opposed to national ones. Postwar national policies in Britain and the United States in fact did support such corporations.[52] The American approach, however, differed from the traditional 19th-century British policies. Whereas British imperial policy supported the sending of capital and labor overseas to its colonies and dominions, postwar U.S. policy promoted the dispatching of corporate management to foreign subsidiaries, thereby creating a system where U.S. corporations functioned more like trading companies. While U.S. policy was not imperial, it was not exactly free trade.

As early as 1956, American food giant H.J. Heinz Company received 70 percent of its income from abroad.[53] In the 1970s, foreign subsidiaries produced four times the value of what the United States exported, and most of those exports were internal transfers to those very subsidiaries. As for capital transfers, postwar U.S. policy encouraged corporations to make direct investments abroad. In 1956–1957, direct foreign investments by U.S. firms increased by $4 billion, with 40 percent going to Latin America, mostly in the petroleum sectors, as well as to Africa and the Middle East.[54] U.S. overseas investments flourished—especially in Europe after the 1958 establishment of the European Economic Community (EEC), the original iteration of the European Union. As this trend continued into the 1960s, America became more a foreign investor than an exporter of domestically manufactured goods. In the 1970s, U.S. corporations extended their investments beyond Europe into rapidly developing countries, putting capital in their growth sectors, this time primarily in manufacturing. By 1971, U.S. corporations held 52 percent of worldwide foreign direct investment.

U.S. domestically based manufacturers did not always benefit. In the 1960s, U.S. support for EEC protectionist policies made American exports less competitive. Yet Europeans placed no restrictions on the

transfer of U.S. capital into Europe. Nixon reflected these manufacturing equities in choosing to impose import quotas as part of his package to resolve the 1971 monetary crisis. His retrograde economic nationalism did not square with the forward-thinking Brzezinski. The Columbia professor held that economics, science, and technology were propelling nations and societies to functional forms of cooperation with limits on national sovereignty. The role of oil companies helped prove his point. Since the 1920s, the U.S. policy supported use of American oil firms to manage U.S. relations with the Arab world. By the 1970s, once U.S. consumption of overseas oil surpassed the supply from domestic fields, those very firms were increasingly inclined to represent Arab equities.

With support from the Brookings Institution, Brzezinski launched a course on what he called Tripartite Studies at Columbia in December 1971. Brzezinski's work aligned with the views of Chase Manhattan's David Rockefeller. The preeminent New York banker had concluded that financial institutions in America were dominating the industrial sectors of the economy.[55] Further, he proposed to eliminate any restrictions on multinational corporations in their pursuit of world economic development. In July 1972, the banker assembled a 17-person gathering at the Rockefeller estate at Pocantico, New York, to consider in effect a grand strategy with the foremost aim of stabilizing the international monetary system.[56] Among their numbers were former Kissinger associate Fred Bergsten and Henry Owen, both from Brookings, Harvard's Robert Bowie, Ford Foundation President McGeorge Bundy, and Council on Foreign Relations President Bayless Manning. From this Pocantico planning session came the storied Trilateral Commission. The following July, Brzezinski became its director.

The strategic vision that emerged was for streamlining the U.S. economy by emphasizing high-tech, high-productivity, high-profit industries like advanced electronics, aerospace, and energy over labor-intensive, low-tech, poorly competitive industries like textiles and steel. The so-called Trilateralists suffered criticism for failing to appreciate the threat posed by the Soviet Union's determined strategic nuclear modernization. This criticism, however, did not apply to Brzezinski, who as Jimmy Carter's national security advisor pushed for a strong U.S. stance on nuclear modernization and arms control negotiations, which those very critics credited the Reagan administration for pursuing. Ronald Reagan also benefitted from a notably prescient Trilateralist analysis that predicted the declining Soviet economy going critical in the 1980s.[57]

When the Reagan administration came to Washington in 1981, the focus of U.S. national security policy had already returned to the Soviet Union. The United States would fund strategic modernization to counter the Soviet program that had been under way throughout the 1970s despite the jewel of détente, the 1972 Strategic Arms Limitation Treaty. After the Soviet invasion of Afghanistan, the United States was ready to rise to the challenges presented by Soviet activity in the Third World. Reagan agreed with Brzezinski: the Soviet system was going bankrupt. His administration would go for broke with a full-court press to stress Soviet imperial overreach.

At the same time, America and the West had their own stress fractures. Western economies were suffering through what was called stagflation—simultaneous high interest rates and high unemployment. The second set of Organization of the Petroleum Exporting Countries oil price hikes in 1979 had created energy shortages and led to Third World debt defaults. Coincident with the Iranian Revolution, the price increases were leading to renewed moves toward economic nationalism. U.S. economic rivals Germany and Japan were pursuing independent and competitive paths. Although high growth was occurring in information-based industries, the West was facing industrial overcapacity in traditional heavy industry—steel, autos, and shipbuilding—where additional competition was coming from production in the Third World. The linchpin of the international system was still the United States with its strategic power, military alliances, and the dollar. The Carter administration's attempt to manage the system using a multilateral approach was seen to have failed. Ascendant Reagan Republicans and their neoconservative Democratic allies would reassert U.S. unilateralism and supremacy.

Nevertheless, fault lines could be found in the administration. It had fashioned itself with representation from national industries and defense contractors who had formed an uneasy Reagan-inspired coalition with representatives from big banks and corporations more inclined to free trade and détente. The locus of the former was Reagan's circle of White House advisors, plus Secretary of Defense Caspar Weinberger. Representing the internationalist side were Vice President George H.W. Bush, White House Chief of Staff James Baker, and George Shultz, who succeeded Alexander Haig as Secretary of State in the second year of the Reagan presidency.

In the second term, Shultz would emerge as the key player to bring the administration together. Shultz was an economic strategist, a tough-minded moderate attuned to the nuances. His background included high-level work in monetary policy at a critical time: in 1972, just after the Nixon shock, he succeeded John Connally as Nixon's Treasury Secretary. His main task was to pull together a plan to restore the international monetary system, working alongside Federal Reserve Chairman Arthur Burns, Secretary of State William Rogers, Council of Economic Advisors Chairman Herb Stein, Assistant to the President for International Economic Affairs Peter Flanigan, and Under Secretary of the Treasury for International Monetary Affairs Paul Volcker.[58] In March 1973, Shultz assembled the so-called Library Group of finance ministers, which met at the White House. Guided by Volcker's desire for an international solution, this assemblage ultimately formalized into a regular mechanism for international financial consultation under the rubric Group of Six (G–6), now expanded to the Group of 8.

The conservative circle around Reagan emphasized both strategic and conventional defense modernization to further stress the Soviet economy. Reagan's Strategic Defense Initiative (SDI), deemed a wasteful, destabilizing, and technically unsound effort, generated particular criticism at the time. However, SDI reflected the recognition of the deeper truth of the battle of techno-industrial bases that was the Cold War. It was not so much whether SDI could work, but rather with enough resources whether it might lead to a strategic paradigm shift, analogous to that produced by the Manhattan Project. Career intelligence professional Robert Gates offered the best insight: "SDI was a Soviet nightmare come to life. America's industrial base, coupled with American technology, wealth, and managerial skill, all mobilized to build a wholly new and different military capability that might negate the Soviet offensive build-up of a quarter century. A radical new departure by the United States that would require an expensive Soviet response at a time of deep economic crisis."[59] He adds, "I think it was the *idea* of SDI and all it represented that frightened them."[60] In the military realm, in the end, the United States defeated the Soviet Union on the techno-industrial battlefield in a war of budgetary attrition. As Eisenhower strategist C.D. Jackson had foreseen in the 1950s, when it came to guns and butter, the United States was supremely able to out-produce the Soviet Union in both to bankrupt its system and win the Cold War.[61]

At the same time, the Reagan administration had to preserve the Western international system whose multiple fissures posed risks to the American grand strategy. When James Baker became Secretary of the Treasury in the second term, item one on his agenda was the dollar.[62] His approach aligned with the thinking of those behind Shultz, as well as with the international monetary views of Volcker and Brzezinski: preserve the dollar as the world's reserve currency by finding a means for "international economic policy coordination." Baker understood the need for coordination: governments, companies, and investors had difficulty planning for the long term, because since the end of Bretton Woods, it was the market that set currency values. Baker thus worked with other foreign financial leaders to establish a process for multilateral, macroeconomic policy coordination that resulted in the 1985 Plaza Accord. The United States got agreement from Britain, France, West Germany, and Japan to have central banks intervene in the currency markets to revalue the dollar against the Deutschmark and yen. Baker maintained that the accord was a crowning achievement.[63]

Meanwhile, George Shultz emerged unscathed by the Iran-Contra arms-for-hostages scandal that broke in 1986. In the administration shakeout that followed, Reagan gave Shultz the foreign policy lead. The Cold War was already in its endgame. Shultz sent his Deputy Secretary of State, former Goldman Sachs executive John Whitehead, on a fact-finding mission to Eastern Europe. The sojourn revealed cracks in the bloc and in the Soviet Union as well, which, Shultz recognized, prevented the Kremlin from taking action to preserve its control over Eastern Europe. With the Western economies solidifying their macroeconomic coordination on a global scale, Shultz could envision the end. After George H.W. Bush was elected, Soviet Premier Mikhail Gorbachev in a speech before the United Nations General Assembly evinced his acceptance that "the world economy is becoming a single organism."[64] Shultz drew from the remark the realization that Gorbachev was ready to engage with the West and that his desire arose from a position of weakness. The only Soviet strength was in strategic weapons. The incoming Bush administration would arrive with a broken adversary looking for Western economic and technological aid.

And so the Cold War ended during the Bush Presidency with the final economic and political bankruptcy of the Soviet system, stressed by U.S. national strategy. The elements of that strategy only became fully integrated in late 1986 when the Iran-Contra scandal forced the Reagan

administration to reorganize. The leadership team that emerged from the wreckage successfully represented and knit together the strategies for nuclear and conventional force modernization with arms control vis-à-vis the Soviet Union, and the various approaches for facilitating international monetary and trade policy coordination with Europe and Japan. In its Cold War victory, the United States thus achieved its broad strategic goals of 1947, albeit almost half a century later.

George H.W. Bush presided over the end of the Cold War and with his national security advisor, Brent Scowcroft, wrote its epitaph: "The Cold War struggle had shaped our assumptions about international and domestic politics, our institutions and processes, our armed forces and military strategy." [65] Observed Robert Gates, "It was a glorious crusade."[66] As for America's future role in the post–Cold War world, Bush and Scowcroft offered their view: the United States was the only power able to "engender predictability and stability in international relations."[67]

The Nineties: (Not) the End of History

In January 1989, the Bush team had assumed the reins of national power with Jim Baker as Secretary of State. The new President trumpeted the appointment, saying, "As secretary of state, he will be my principal foreign policy advisor."[68] As for his foreign policy expertise, Baker claimed his previous international work in the Treasury Department with the world's finance ministers and central bankers.[69] Baker's assessment of his appointment was an early signal of what promised to be a post–Cold War power shift in Washington and the Executive Branch: the decline of the Pentagon and the rise of Treasury and the Federal Reserve. As the Nation proceeded into the 1990s, it would become clear how the strategic priorities, whether expressed in declaratory policy or not, would move from considerations of national security informed by the community of interest around the defense techno-industrial base to those of monetary policy counseled by a community associated with the financial services sector.

Narrowly conceived, the Federal Reserve was supposed to supervise and regulate banks, implement monetary policy, and maintain a strong official payments system. In August 1987, Alan Greenspan had become its chairman. Greenspan took the position that the Federal Reserve should assume a more activist role by adopting policies of market interventions—policies somewhat beyond those of free-market economics. Under Greenspan, Washington thus would

have a regulatory policy for the financial services sector (read *bailouts*). Prompted initially by the credit and debt crises of the 1980s, the dollar value of these accelerating interventions would eventually rival the oft-criticized Pentagon budget amounts that benefitted the sometimes maligned Cold War military-industrial complex. As the Cold War priorities began to recede and the impact of the 1980s debt crises began to be felt, political power realigned toward lenders, banks, investment firms, mutual funds, and the like.

The 1990s would prove to be a decade without any sustained global national security distractions. Policymakers could finally and fully address the formalizing of the international monetary and trading regimes envisaged in 1944 at Bretton Woods. Fifty years on, the international political-economic system was markedly different: the new fact of life was globalization.

The United States may have entered the 1990s as the world's sole superpower. Absent a geostrategic military rival, the military component of national strategy quickly assumed diminished importance. Yet initially, the U.S. military-industrial sector and defense policymakers did not recognize the full extent of the meaning of globalization. Abroad was a very competitive Japan and a Europe moving toward some sort of union under what was at the time tagged "EC 92." The American defense community saw potential geostrategic rivals converging into neomercantilist blocs. In response, defense managers proposed to apply "competitive strategies," a concept developed during the Cold War endgame. The approach had relied on net assessments to make the material link between operational concepts, specifically for North Atlantic Treaty Organization warfighting, and acquisition. In the post–Cold War era, advocates sought to translate this approach to strategies for economic competitiveness. They aligned themselves with another carryover initiative to identify, prioritize, leverage, and acquire critical technologies that would serve as a basis for informing a U.S. techno-industrial policy. The model was the late 1980s government-funded 14-member Sematech consortium for semiconductor manufacturing, the U.S. attempt to regain competitiveness in the information technology (IT) base vis-à-vis Japan. Sematech enthusiasts assumed that the vaunted "peace dividend" afforded by the end of the Cold War could reprogram to underwrite similar efforts to retool American manufacturing—for example, by making it agile—for other critical technologies that offered a competitive, high-tech value-add. Sematech, however, was not repeated.

The majority opinion among Republicans and Democrats opposed use of any techno-industrial policy that would "pick winners and losers."

At the same time, facing certain cuts to Pentagon budgets, tier-one prime contractors put emphasis on loosening export control policies. In their pursuit of the anticipated closing of the common European defense market, they secured—when and where they could—approvals for offset agreements, at the expense of their own third-tier defense suppliers in America, to overcome nontariff barriers such as rules of origin and local content requirements. These global strategies led to the point where some tier-two defense electronics firms, notably EDS Defence, were unabashedly claiming to be "stateless corporations."

The consumer electronics sector in the 1980s and 1990s was driving technology advances. Whereas in the Cold War era, the defense sector generated "spinoff" technologies for the commercial sector, the private sector had surged ahead offering "spin-in" technologies for defense applications, notably in IT, the EDS core competency. In short, the defense and the commercial techno-industrial bases had merged and were no longer conceived as a "national" base but rather as enterprise elements exchanging intellectual property, human resources, goods, services, and capital in a global commons.

Advances in information technology enabled corporations to flatten their organizational structures. No longer traditional hierarchies, corporations were moving toward network structures. They were embracing joint ventures and strategic alliances, often with foreign partners. Transnational corporations could use IT to accelerate their use of global R&D and manufacturing strategies. In a move away from fixed assets, which stranded capital, they could outsource and implement just-in-time logistics management strategies whereby they could "warehouse" inventories in the supply chain, a strategy that assumed that strategic-level security threats would remain things of the past and a distant concern.

Corporations made competitive assessments based on an increasing capability to use IT to develop and perfect algorithms for return on investment. In the early 1980s, a trend became evident. Increasing numbers of institutional investors were serving on corporate boards. Accordingly, major corporations began to assess themselves differently, no longer simply looking at production as their profit centers; their financial services divisions suddenly became more interesting. These divisions are now very familiar: examples include General Motors' GMAC and General Electric's GE Capital, both of which are heavily into

home mortgages and commercial financing—far removed from what their core businesses were during America's industrial era.

Whatever date or event historians may ascribe as the precise end of the Cold War, Bill Clinton was inaugurated in January 1993 as the first post–Cold War President. In a sense, the 1990s were comparable to the post–World War II era when the United States pursued European reconstruction via the Marshall Plan. In that respect, the Clinton administration would continue its predecessor's policy to resource development in Eastern Europe and the former Soviet republics, adding to it the objective of arriving at some kind of economic and security condominium with China. As for national security, the administration cut Pentagon acquisition, privatized defense functions, and changed the mission of the Department of Energy nuclear complex of laboratories and sites from development and production of nuclear weapons to "environmental management." In effect, the Clinton administration put an end to what had been America's Cold War techno-industrial policy.

In its stead, the administration adopted a policy associated with Third Way centrism. Its adherents in Britain and America proposed to build upon the policies of Prime Minister Margaret Thatcher and President Reagan that embraced deregulation, privatization, and globalization. In effect, the techno-industrial policy that emerged for the 1990s would benefit not defense, but telecommunications, the utilities, and financial services.

In terms of pure size, the financial services sector was America's biggest, outstripping manufacturing, health, wholesale/retail, and agriculture. The community of interest was a constellation around a core of Wall Street investment banking and the Federal Reserve Bank of New York. Yet whereas the investment bankers had served the interests of their shareholders, the profusion of shadow banking mechanisms and instruments made loyalty somewhat situational.

For the most part, shadow banking arose as one consequence of the floating currency exchange rates following the breakdown of Bretton Woods. No longer were governments effectively able to use controls as principal means to administer monetary policy and the supply of money. When the dollar ceased to be based on gold convertibility, it became based on projected future value, and that entailed risks that needed to be hedged. By the 1990s, the widespread use of hedge funds, derivatives, credit default swaps, and other financial instruments to address risk could also serve as vehicles for speculation, spawning the

unregulated world of shadow banking. In this world, loyalty was now to the "deal." And more often, the deal was a financial instrument for some aspect of an enterprise in the global commons whose raison d'etre was just that—the deal. The decade was all about the mobility of capital—indeed, though still denominated in dollars, capital that was stateless. In sum, globalization was really the globalization of financial markets.

If Henry Kissinger had the stature of a Metternich of the Cold War, Robert Rubin was the Cavour of the New World Order. As the co-chairman of Goldman Sachs, Rubin participated in Clinton's transition team. By this time, Goldman had become the Dillon Read of the end of the American Century. In 1968, John Whitehead had led the firm toward a global and strategically minded enterprise. Whitehead brought Lyndon Johnson's Treasury Secretary, Henry Fowler, to the firm. At the same time, he turned Goldman into the first international investment banking firm, establishing a London office with the capability to offer American-style commercial paper, corporate promissory notes, in a sense equivalent to government-issued paper currency.

In his 2003 memoir, Rubin says the global priorities were clear to Clinton's transition team. When the President-elect's economic policy advisors considered bond markets, they took as their starting point for analysis and advice the international—as opposed to the U.S.—bond market. Rubin determined that his role as Clinton's Secretary of the Treasury would be to craft policy precisely on the basis of a globalization of financial markets.[70] Other authors cite a September 1993 speech by National Security Advisor Anthony Lake at Johns Hopkins University as the key statement of what was going to be the Clinton administration's grand strategy focus. Lake spoke of the transition from a policy of containment to a policy to enlarge market democracies.[71] In effect, this approach was a continuation of the postwar policies of the two wars, which were interrupted by the Cold War. Rubin and Clinton stood for free trade, financial deregulation, and IMF leverage to further international monetary and economic policy coordination. The United States would serve as the facilitator of a single, globalized market. Its security responsibilities would be to maintain peace and stability to enable multilateral banking and trade to thrive further.

Rubin and his senior Treasury team,[72] which included Larry Summers, Tim Geithner, David Lipton, and Caroline Atkinson, worked closely with Alan Greenspan to craft policies that supported the Federal Reserve chairman's goals for American banking when he

succeeded Paul Volcker in 1987. In the last decade of the 20th century, international banking was dominated by superbanks such as the Japanese Mitsubishi, the British Hong Kong Shanghai Banking Corporation (HSBC), the Swiss Credit Suisse, and the German Deutsche Bank. When Greenspan became chairman, the United States had no banks in the world's top ten. Greenspan and the Federal Reserve became advocates of the idea that America should have its own superbanks to compete. Federal Reserve policy thus moved to support the idea. After a decade as chairman, Greenspan was able to say that the Fed was able not only to cut interest rates but also bail out banks—and, like the Bank of Japan, intervene in "market events." It could, for example, buy futures or equities from mutual funds and other institutional sellers to forestall panic and pump money into the system. It could even buy state and local debt, real estate, or gold mines.[73] With a Washington policy for bailouts, the Federal Reserve provides liquidity and benign regulation. In effect, Greenspan's approach was an industrial policy for the U.S. financial services sector. The repeal of the 1933 Glass-Steagall Act in the 1999 Financial Services Modernization Act, which eliminated the barriers to commercial banking, insurance, securities, and mortgages, was the final enabler for Greenspan's superbanking competitive strategy. By 2003, the United States had three banks in the world's top ten. Citigroup stood at number one, accompanied in the rankings by Bank of America and JPMorgan Chase.

The enhanced confluence of the Federal Reserve and Treasury in the 1990s elevated the monetary policy of the United States to a postwar grand strategy built around the Nation's superbanks as the competitive core and the dollar as *the* U.S. export. The techno-industrial base would appear no longer to be the American core. As always, the numbers tell the tale. In 1950, just into the start of the Cold War, manufacturing represented 29.3 percent of gross domestic product (GDP); finance was a mere 10.9 percent. That year, manufacturing generated over 50 percent of U.S. corporate profits; finance accounted for 10. Fifty-five years later in 2005, manufacturing provided just 12 percent of GDP, while finance contributed 20.4. Yet the really telling numbers are that year's figures on corporate profits: in 2005, manufacturing tallied less than 10 percent, while finance was responsible for 40 to 50 percent of all corporate profits in the United States.

In today's national economic policy debates, the globally oriented financial services sector is dominant over what had been the Cold

War military-industrial complex, many of whose elements are more nationally oriented. The post–Cold War budgetary retrenchment in the 1990s consolidated this complex into a handful of behemoth defense firms, such as Lockheed Martin, Northrop Grumman, Boeing, Raytheon, and General Dynamics. The Pentagon monopsony gave way to these defense-industrial "trusts," reduced to begging for business. If Lockheed Martin represents the first among equals "inside the Beltway," it is Goldman Sachs who is the big dog with Washington suasion on Wall Street. Once, the industrial policy debates had been over "picking winners and losers." In the first decade of the 21st century, the debates are over "too big to fail."

And what geostrategic threat now rises to focus the national mind on a grand strategy? After 9/11, the George W. Bush administration tried to tie rogue states with weapons of mass destruction capabilities to al Qaeda to pursue a global war on terror. Some saw this as, at best, a declaratory policy. They would argue that the Bush grand strategy was a resource strategy, the subject addressed by Vice President Dick Cheney's National Energy Policy task force. Or is it, at bottom, preservation of the dollar as the international reserve currency? If so, the threat could be coming from a truly geostrategic rival who not only holds a significant amount of our national debt but is also developing information warfare capabilities that could end American life as we know it without firing a shot. Can we assume that we can manage this cyberspace standoff as successfully as we did with nuclear deterrence? And swimming in an ocean of debt, how does our nation resource what remains of our heartland (if such a descriptive still has meaning) techno-industrial base to rise to these challenges?

History indeed is without end. We have our work cut out for us.

Notes

[1] Aaron L. Friedberg, *The Weary Titan: Britain and the Experience of Relative Decline, 1895–1905* (Princeton: Princeton University Press, 1988), 79.

[2] Leopold Amery, "Comments on Mackinder," *Geographical Journal* 23 (1904), 439–441.

[3] Admiral Mike Mullen, USN, Chairman of the Joint Chiefs of Staff, August 26, 2010.

[4] Today, most notably the Pentagon, Treasury, and Federal Reserve.

[5] All properties in England and Wales are either freehold or leasehold. The owner of freehold properties fully owns the land and buildings. Leasehold properties do not include ownership of the land and in some cases the buildings—for example, in the case of apartments. Leaseholders are granted the right to live there by the freeholder and own the property for as long as the lease specifies. Many leases were originally granted for up to 999 years, but existing leases on properties

are usually shorter—for example, 99 years. At the end of the lease, possession of the property reverts to the freeholder. The largest freeholders in the West End of London include the Queen, the Church of England, the Duke of Westminster, the Earl of Cadogan, the Howard de Waldens, and Viscount Portman.

[6] The Federal Government also provided support for transportation infrastructure projects. The noteworthy example was the Cumberland or National Road over the Allegheny Mountains. Construction began in 1811 at Cumberland, Maryland, and finished in 1818 in Wheeling, on the Ohio River, in what is now West Virginia. A series of turnpikes connected the road to Baltimore by 1824. To the west, the National Road continued to Illinois, finishing in Vandalia in 1839.

[7] Although the United States sees itself as the historical champion of free trade, New England and the North were generally protectionist at this time, whereas the South was for free trade. At issue was the use of tariffs to protect infant industries—an industrial policy, as it were, that benefitted the North. The Southern and Midwestern agricultural interests, which were at the time generating the vast majority of U.S. exports, did not wish to see America contributing to tariff wars with Europe and European colonies—their overseas markets. Moreover, not having their own regional industrial bases, they did not want the costs of imported manufactures burdened by further costs imposed by high Federal protectionist tariffs. This disconnect was a continuance of the creative tension that began with the Founding Fathers, specifically New York's Alexander Hamilton and Virginia's Thomas Jefferson, and endures as an American historical narrative motif. In the 19th century, tariff policy was one key manifestation that divided centralizing industrial and financial interests from decentralized agrarian and small business interests in the South and Midwest. Then, tariffs were the principal means for the Federal Government to collect revenue. Yet high tariffs protected home industry and further supported those deemed critical to the Nation's defense, an argument put forth by Kentucky Hamiltonian Henry Clay on behalf of his so-called American System, which included policies for Federal funding of infrastructure projects and a strong national bank.

[8] Postwar American policymakers essentially took this approach and applied it to Europe with the Marshall Plan.

[9] Michael J. Hogan, *The Marshall Plan: America, Britain, and the Reconstruction of Western Europe, 1947–1952* (Cambridge: Cambridge University Press, 1987), characterizes the American version of the "associative state" as having a:

> political economy founded on self-governing economic groups, integrated by institutional coordinators and normal market mechanisms, led by cooperating public and private elites, nourished by limited but positive government power, and geared to an economic growth in which all could share. These efforts married the older traditions associated with the localized and fragmented political economy of the nineteenth century, including individualism, privatism, competition, and antitrust, to the twentieth-century trend toward an organized capitalism characterized by national economies of scale, bureaucratic planning, and administrative regulation. (3)

[10] Prior to his political career, Hoover was a mining engineer. His brand of associationalism owed much to Fredrick Winslow Taylor's Efficiency Movement. In Britain prior to the Great War, Halford Mackinder was identified with the British iteration, the National Efficiency Movement. The effort, championed by Mackinder while at the London School of Economics, had similar technocratic goals—for example, to reverse the deterioration of efficiencies in the military, business, and government administration, first revealed in the Boer War, oft cited as Britain's Vietnam.

[11] After the Panic of 1893, President Grover Cleveland restored the income tax until the Supreme Court declared it unconstitutional in 1895.

[12] Carnegie named the works after the Pennsylvania Railroad president, in homage to Thompson's mentoring him as a young man.

[13] The Industrial College of the Armed Forces' Benjamin Franklin Cooling marks these awards as the origin of the Nation's military-industrial complex. See Cooling, *Gray Steel and Blue Water Navy: The Formative Years of America's Military-Industrial Complex 1881–1917* (Hamden, CT: Archon Books, 1979), 55.

[14] Ibid., 12–13.

[15] John S. Craighill, David E. Jeremiah, Howard K. Schue, and John F. Morton, "The Navy General Board: Balance Wheel to Receiving Ship," *Technology Strategies and Alliances*, Report to the Office of Net Assessment, March 31, 2005.

[16] To be sure, a case can even be made that presteel shipbuilding "industrial" base priorities were evident in Federal policies as far back as the early years of the Republic. By example, 3 years into the 19th century, Congress recognized the importance of the shipbuilding base after fire ravaged Portsmouth, New Hampshire. The Congressional Fire Disaster Act of 1803, which provided ad hoc assistance to the city, was the first instance of Federal disaster legislation. At the time, Portsmouth was not only the cradle of American shipbuilding but also a major port whose commerce provided the Federal Government with substantial tariff revenues.

[17] Gary, from whom the city of Gary, Indiana, takes its name, brought together Morgan, Carnegie, and Schwab to create U.S. Steel and served as its president and board chairman.

[18] Similarly, the Federal Government had contracted with steamship companies starting in 1847 and railroad companies in 1869.

[19] Kerry E. Irish, "Apt Pupil: Dwight Eisenhower and the 1930 Mobilization Plan," *Journal of Military History* 70 (January 2006), 40.

[20] William Gibbs McAdoo, *Crowded Years: The Reminiscences of William G. McAdoo* (Port Washington, NY: Kennikat Press, 1931), 290.

[21] William L. Silber, *When Washington Shut Down Wall Street:The Great Financial Crisis of 1914 and the Origins of America's Monetary Supremacy* (Princeton: Princeton University Press, 2007), 168.

[22] Robert D. Schulzinger, *The Wise Men of Foreign Affairs: The History of the Council of Foreign Relations* (New York: Columbia University Press, 1984), 22.

[23] In fact, it was the Gold Reserve Act of 1934 that changed the nominal dollar price of an ounce of gold from $27.67 to $35. The dollar itself was thus pegged; it did not float against gold.

[24] Along with Stettinius, the WRB had Walter S. Gifford of AT&T, Harold G. Moulton, president of Brookings, Karl Compton of MIT, John Lee Pratt of GM, and Robert E. Wood of Sears—but not Baruch.

[25] G. Pascal Zachary, *Endless Frontier: Vannevar Bush, Engineer of the American Century* (New York: The Free Press, 1997), 229.

[26] Jeffrey M. Dorwart, *Eberstadt and Forrestal: A National Security Partnership* (College Station, TX: Texas A&M University Press, 1991), 105.

[27] Ibid., 106.

[28] Ibid.

[29] Irish, 40–41.

[30] Dorwart, 155.

[31] "The Atom: The Masked Marvel," *Time*, January 14, 1952, available at <www.time.com/time/magazine/article/0,9171,806177,00.html#ixzz0fXoL6Tqb>.

[32] Dorwart, 178–179.

[33] Over time, the notion of a defense industrial base assumed a somewhat negative cast as the military-industrial complex, famously enunciated in 1961 by President Eisenhower in his farewell address to the Nation.

[34] Schulzinger, 150.

[35] Gordon Dean, foreword to Henry A. Kissinger, *Nuclear Weapons and Foreign Policy* (New York: Harper & Brothers, 1957), vii.

[36] Paul H. Nitze, *From Hiroshima to Glasnost: At the Center of Decision* (New York: Grove Weidenfeld, 1989), 151–152. Nitze wrote that in the State Department view, massive retaliation reduced the value and effectiveness of diplomacy. He himself saw it as ending the wartime and postwar bipartisan foreign policy consensus. By 1955, it was clear to him that massive retaliation was only a declaratory policy. In actual fact, he wrote, the policy had become graduated deterrence.

[37] Kissinger, 93.

[38] Ibid., 225.

[39] Lawrence Freedman, *The Evolution of Nuclear Strategy,* 2d ed. (New York: St. Martin's Press, 1989), 175–176.

[40] Ibid.

[41] Robert Gates has addressed at length a hidden bipartisan continuity to Cold War policy: "Hidden because, regardless of philosophy, the public approach of challengers in our politics is usually to tear down rather than to promise to build upon the work of incumbents—especially if the incumbent is in the other party. . . . Indeed, I believe that the conventional wisdom that Vietnam shattered the American consensus in foreign policy was not borne out by experience." Liberals, he says, opposed CIA operations; conservatives felt its assessments were too soft and supportive of arms control. "The terms 'hawks' and 'doves' do oversimplify the contending factions in the American government from 1969 to 1991." Gates says disputes occurred in all five Presidencies in which he served, but "these disputes were neither unusual nor weakening. They represented, in fact, a healthy contention of ideas and approaches. . . . Presidents needed both hawks and doves, because this aviary mixture allowed the Presidents, more often or not, to be the 'owls.'" Robert M. Gates, *From the Shadows: The Ultimate Insider's Story of Five Presidents and How They Won the Cold War* (New York: Simon & Schuster, 1996), 556–571.

[42] Nitze, 170.

[43] This situation was a geostrategic reversal of Mackinder's axiom, "Who rules East Europe commands the Heartland. Who rules the Heartland commands the World-Island. Who rules the World-Island commands the World."

[44] Blanche Wiesen Cook, *The Declassified Eisenhower: A Divided Legacy* (Garden City, NY: Doubleday and Company, 1981), 325.

[45] Laurence H. Shoup and William Minter in *Trilateralism: The Trilateral Commission and Elite Planning for World Management*, ed. Holly Sklar (Boston: South End Press, 1980), 146.

[46] Ibid., 142.

[47] One study was the November 1950 Gray Report, led by Gordon Gray and Edward S. Mason, which focused on Third World development. Another was the March 1951 Rockefeller Report, recommending a new international finance agency. Others were the June 1952 Paley Report on raw materials, the February 1953 Bell Report on trade and tariff policy, and the January 1954 Randall Report on world shortage of dollars, the so-called "dollar gap." Cook, 304–307.

[48] Ibid., 309.

[49] Jeremi Suri, *Power and Protest: Global Revolution and the Rise of Détente* (Cambridge: Harvard University Press, 2003), 95.

[50] Robert Gates wisely observed:

> Détente's greatest achievement was the opening of consistent contact between the United States and the USSR in the early 1970s—a gradually intensifying engagement on many levels and in many areas that, as it grew over the years, would slowly but widely open the Soviet Union to information, contacts, and ideas from the West and would facilitate an ongoing East-West dialogue that would influence the thinking of many Soviet officials and citizens. At the same time, détente was discredited after 1974 because, by then, it was readily apparent that neither power was prepared to change its basic adversarial approach to the competition. Further, neither party could get from détente what it most wanted. The United States wanted to stop the Soviet arms build-up and to obtain Soviet help in extracting itself from Indochina. It was unsuccessful on both counts. The Soviets wanted an ally against China and help in dealing with its increasingly severe economic problems. It, too, was unsuccessful on both counts.

Gates, 49.

[51] Zbigniew Brzezinski, *Between Two Ages: America's Role in the Technetronic Era* (New York: Viking Press, 1970), 300.

[52] For example, in 1954, U.S. firms were getting tax breaks on profits earned from overseas subsidiaries. Cook, 303.

[53] Ibid., 322.

[54] Ibid., 319.

[55] Peter Collier and David Horowitz, *The Rockefellers: An American Dynasty* (New York: Holt, Rinehart and Winston, 1976), 407.

[56] Sklar, 484.

[57] Ibid., 34.

[58] George P. Shultz, *Turmoil and Triumph: My Years as Secretary of State* (New York: Charles Scribner's Sons, 1993), 147.

[59] Gates, 264.

[60] Ibid., 266.

[61] In their 1957 *Nuclear Weapons and Foreign Policy*, the Dean study group interestingly observed that once the Soviets had nuclear weapons, they suddenly had an ideological problem. A sustained nuclear stalemate compromised the root Marxist doctrine of historical inevitability. Nuclear weapons established that the forces of technology were superior to the forces of history and demonstrated that technological innovations could paralyze the dialectic of class struggle. Kissinger, 384.

[62] James A. Baker III, *"Work Hard, Study . . . and Keep Out of Politics!" Adventures and Lessons from an Unexpected Public Life* (New York: G.P. Putnam's Sons, 2006), 428.

[63] Ibid., 426–432.

[64] Shultz, 1107.

[65] George Bush and Brent Scowcroft, *A World Transformed* (New York: Alfred A. Knopf, 1998), 564.

[66] Gates, 574.

[67] Bush and Scowcroft, 566.

[68] Baker, 283.

[69] Ibid., 282.

[70] Robert E. Rubin, *In an Uncertain World: Tough Choices from Wall Street to Washington* (New York: Random House, 2003), 121.

[71] Derek Chollet and James Goldgeier, *America Between the Wars From 11/9 to 9/11: The Misunderstood Years Between the Fall of the Berlin Wall and the Start of the War on Terror* (New York: PublicAffairs, 2008), 65.

[72] See Rubin, 387, for his account of how this team continued to convene out of office to consider the financial issues of the day.

[73] Kevin Phillips, *Bad Money: Reckless Finance, Failed Politics, and the Global Crisis of American Capitalism* (New York: Viking, 2008), 59.