

ALSO BY AMY CHUA

*World on Fire*

# DAY OF EMPIRE

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HOW HYPERPOWERS RISE TO GLOBAL DOMINANCE—  
AND WHY THEY FALL

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Adventism, Jehovah's Witnesses, and Pentecostalism.) Its democratic system of government was capable, both despite and because of its corruption, of giving newcomers some actual political influence, at least at the local level. And its rollicking free market sucked up labor, rewarded mechanical skill, and provided undreamt-of opportunities to the enterprising. Other nineteenth-century nations might offer bits or pieces of these three advantages; none had all three to the same extent as America.

Thus the United States became far and away the world's leading destination for newcomers. Between 1871 and 1911, some twenty million immigrants arrived in the United States. Over the same time frame, Argentina and Brazil together received six million immigrants, Australia and New Zealand 2.5 million, and Canada fewer than two million.<sup>17</sup>

#### THE TRANSFORMATION FROM REGIONAL TO GLOBAL POWER

At the approach of the twentieth century, for all its explosive economic growth and territorial expansion, the United States was still only a regional power. Militarily, it was a pygmy compared to the great powers of Europe. Its navy in the 1880s ranked twelfth in the world by number of ships, outclassed even by Sweden. Its army was "insignificant compared with that of even a middle-sized European country like Serbia or Bulgaria." Although its armed forces were sufficient to defend its borders and maintain dominance in the Caribbean and the Americas, the United States in 1900 barely registered as a significant power on the global scene.<sup>18</sup>

Within just a few decades, all of this would change. World War I gave the United States its first taste of global power. The American intervention in 1917 shifted the balance in favor of the Allies and, according to President Woodrow Wilson, thrust on the United States the role of showing "the nations of the world how they shall walk in the paths of liberty."

But the United States was not yet ready to follow Wilson's vision. Instead of projecting its power outward, the United States

took an "isolationist" turn, with the Senate refusing to ratify the treaty for the League of Nations that Wilson had poured his heart into creating.<sup>19</sup> At the same time, the nationalist passions inflamed by the war triggered a surge of xenophobia and nativism. In 1917, 1921, and 1924, Congress passed a series of immigration acts radically changing U.S. policy.

For the first time, these laws imposed numerical limits on immigration. More fundamentally, they created a national-origin quota system with an undeniable ethnic and racial bias.

The goal of the 1924 act, in the words of Congressman Albert Johnson, its principal author, was the achievement of a "homogeneous citizenry," putting an end to the "indiscriminate acceptance of all races." Johnson railed against the "dilution" of America's "cherished institutions" by "a stream of alien blood," specifically warning against "filthy, un-American" and "unassimilable" Jews. Accordingly, the number of immigrants allowed from a given country under the 1924 quotas was based on the number of natives from that country living in the United States in 1890. The result was a severe restriction on the admission of southern and eastern Europeans, not to mention an almost complete ban on Asians, Africans, and other nonwhites.

The Great Depression gave nativist politicians further opportunity to scapegoat the "hordes of penniless Europeans"—"mongrels" and "illiterates," many of them "dangerous radicals"—who were "lining up to come to America." President Hoover called for a tightening of immigration restrictions. Between 1931 and 1935, the United States experienced negative net immigration for the first time ever.

As World War II began, the first reaction of many Americans was to keep the United States out of the war—and to keep foreigners out of the United States. In 1939, in the wake of the Kristallnacht pogrom in Nazi Germany, a few members of Congress drafted a bill to admit 20,000 Jewish refugee children to the United States in excess of the normal German quota. Nativist organizations vehemently fought the bill, a majority of Americans opposed it, and it never came up for a vote in either house. Laura Delano,

President Roosevelt's cousin and the wife of the commissioner of immigration, famously warned that "20,000 charming children would all too soon grow into 20,000 ugly adults."

The negative immigration rates of the 1930s proved short-lived and completely exceptional in U.S. history. Ironically, the anti-immigration attitudes of the interwar years may have been a boon to the tens of millions of newcomers who had already arrived. The massive influx of Europe's "poorest and least fortunate"—almost a million Italians, Poles, Russians, Finns, Jews, Germans, Czechs, and Hungarians annually between 1900 and 1914—had created enormous social strains in America.<sup>20</sup> The relatively closed-door interwar years provided a respite, allowing these immigrant communities to be absorbed and assimilated. This was a lucky thing, because so many of the sons of these new Americans would be called on to fight and die in the war that relaunched America, this time irrevocably, onto the world stage.

If World War I left the great European powers considerably weakened, World War II dealt the decisive blow. The world that emerged in 1945 was no longer Europe-centered. When the carnage and rubble were cleared, the United States stood as a world superpower, with the shattered nations of Europe dependent on its might and wealth.

Horrific in so many ways, the war triggered an unprecedented economic boom in the United States. Shaking off the Great Depression, U.S. industry between 1940 and 1944 exploded, expanding at a higher rate than ever before or since. By the war's end, the United States was the world's greatest exporter of goods and accounted for more than half of the world's total manufacturing output. It had gold reserves of \$20 billion (roughly two-thirds of the world's total) and boasted a higher standard of living and per capita productivity than any other country. Under the Marshall Plan, the United States provided Europe with \$13 billion, helping to get the ravaged economies of West Germany, Italy, and France back on their feet.

At the same time, the United States became the preeminent military power of the Western world. By the war's end, America had mobilized an astonishing 12.5 million service personnel. Its naval forces, with 1,200 warships and a devastating submarine fleet, had replaced the British Royal Navy as the world's most powerful. Its bombers commanded the air, with a thousand long-range B-29s that had obliterated Japanese cities. Most fatefully, the United States alone had the atomic bomb, which had turned Nagasaki and Hiroshima into infernos unlike anything the world had ever seen.

Tolerance played a critical role in every dimension of the United States' rise to superpower status. Again, the sheer manpower advantage possessed by the United States resulted directly from the country's open immigration policies before 1920. In 1816, America's population was just 8.5 million, compared to Russia's 51.2 million. By 1950, the United States' population was more than 150 million, while Russia's was around 109 million. Even more crucially, immigrants were also directly responsible for the revolutionary technological breakthroughs that catapulted the United States to military preeminence.<sup>21</sup>

In 1930s Europe, Nazi intolerance caused the loss of incalculable scientific talent. The list of brilliant physicists and mathematicians who fled Hitler is astounding, including Edward Teller, known as the "father of the hydrogen bomb"; the aeronautical genius Theodore von Karman; John von Neumann, a child prodigy and the cocreator of game theory; Lise Meitner, after whom Element 109, meitnerium, is named; Leo Szilard, conceiver of the nuclear chain reaction; Enrico Fermi, builder of the first experimental nuclear reactor; the Nobel Prize-winning physicists Hans Bethe and Eugene Wigner; Niels Bohr; and of course Albert Einstein. With the exception of Meitner and Bohr, every one of these scientists emigrated to the United States.

The immigration to the United States of these refugee scientists, most of whom were Jewish, represented the single greatest "influx of ability of which there is any record." Up until the 1930s, Germany and Hungary were home to some of the world's leading physicists. Practically overnight, their departure turned America

into "the world's dominant force in pure science." Einstein, whose property was confiscated by the Nazis in 1933, explained that he would "only live in a land where there reigns political freedom, tolerance and equality of all citizens before the law."<sup>22</sup>

Jews were hardly equal citizens in the United States in 1945. Formal quotas and informal social discrimination kept Jews largely out of the top universities and highest government posts until at least the 1960s. But *relative* tolerance is what matters, and by comparison to the other options, the United States was for Einstein and so many of his fellow brilliant scientists a new Jerusalem. It was their work that led to the development of the atomic and hydrogen bombs, giving America the world's first nuclear weapons. Perhaps never in world history has an infusion of immigrant talent so immediately translated into a scientific advance and military advantage of such planet-altering magnitude.

Within a few years, however, the United States was no longer the world's sole atomic power. To the east of Europe had risen another colossus, the Soviet Union, whose rivalry with the United States would be the defining geopolitical reality of the ensuing decades.

Interestingly, as the Cold War began, it was not at all clear which of the two superpowers was the more tolerant. While the United States certainly offered more religious freedom, its commitment to ideological openness was undermined by the McCarthy witch hunts of the 1950s. Moreover, in some parts of the country, racial apartheid was practiced under the name of Jim Crow. By contrast, the U.S.S.R. did not respect religious or ideological freedom but proudly proclaimed its racial and ethnic universalism.

The territory taken over by the Bolsheviks in 1917 included a complex array of ethnic, national, and tribal minorities. In their rise to power, the Bolsheviks harnessed the discontent of Russia's ethnic minorities, promising them "equality" and "the genuine right to self-determination." The first all-Union Census of 1927 identified 172 separate "nationalities" in the Soviet Union, although (through various political and ethnographic manipulations) by 1939 this number had been whittled down to just 57. At

least in principle, Soviet "nationalities" policy was supposed to promote non-Russian cultures and languages, to give "all the nations" within the Union considerable autonomy, and to allow the best and brightest non-Russians to participate and rise in the Soviet system. On the international front, the U.S.S.R. invited delegates from Cuba, China, and African nations to Moscow in order to strengthen ties within the Communist bloc. At the same time, Soviet propaganda reported constantly on American blacks' "semi-slave" status and the "frequency of terroristic acts against negroes," including "the bestial mobbing of four negroes by a band of 20-25 whites" in Monroe, Georgia, in 1946.<sup>23</sup>

There is no doubt that racism caused the United States considerable international embarrassment. In one notorious case, when Haiti's secretary of agriculture arrived in Biloxi, Mississippi, in 1947 for a conference, the hotel (not expecting the secretary to be black) refused for "reasons of color" to let him stay with the other conference attendees. After the incident, an outraged editorial in a Haitian newspaper wrote, "The Negro of Haiti understands that the word democracy in the United States has no meaning."

In part, the U.S. government's postwar receptivity to civil rights reform reflected American interests in bolstering the country's international stature. In a 1948 *New York Times Magazine* article, Robert E. Cushman, a member of President Truman's Committee on Civil Rights, argued: "[T]he nation finds itself the most powerful spokesman for the democratic way of life, as opposed to the principles of a totalitarian state. It is unpleasant to have the Russians publicize our continuing lynchings, our Jim Crow statutes and customs, our anti-Semitic discriminations and our witch-hunts; but is it undeserved?" Cushman concluded, "[Americans] are becoming aware that we do not practice the civil liberty we preach; and this realization is a wholesome thing."<sup>24</sup>

As the twentieth century unfolded, the oppressiveness of the Soviet regime became increasingly manifest, and its claims of equality increasingly bankrupt. Corruption, patronage, and ossification spread throughout the Soviet Union. Even its supposed ethnic tolerance proved hollow. Russian hegemony and chauvinism

vis-à-vis non-Russian peoples—not to mention occasional brutal military interventions—generated intense resentment throughout central Asia, the Baltic Republics, and Eastern Europe. Meanwhile, as the U.S.S.R. grew ever more closed and stagnant, the United States went in a very different direction.

America's civil rights revolution in many ways began with the 1954 landmark case of *Brown v. Board of Education*. In *Brown*, the Supreme Court struck down race-based school segregation, rejecting the doctrine of "separate but equal" in public education. In the early 1960s, President John F. Kennedy put his presidency squarely behind the cause of civil rights, passionately arguing in a nationwide television address:

We preach freedom around the world, and we mean it, and we cherish our freedom here at home, but are we to say to the world, and much more importantly, to each other that this is a land of the free except for the Negroes; that we have no second-class citizens except Negroes; that we have no class or [caste] system, no ghettos, no master race except with respect to Negroes?<sup>25</sup>

Kennedy also summoned to Washington the leaders of America's most prestigious universities and implored them to diversify their student bodies, telling the group, "I want you to make a difference. . . . Until you do, who will?"

President Kennedy was assassinated in 1963. A year after his death, Congress passed the 1964 Civil Rights Act, which enacted sweeping voting reforms, required employers to provide equal employment opportunities, and made it illegal to discriminate on the basis of race in public places such as hotels, restaurants, and theaters. Around the same time, Yale University president Kingman Brewster embarked on unprecedented institutional reforms, with Harvard shortly following suit. Brewster hired R. Inslee ("Inky") Clark to be Yale's new admissions director, with the mandate of

building a more pluralistic student body. Brewster and Clark eliminated geographical factors for admission—which had been a way to limit Jewish students—and reduced preferences for alumni legacies and prep school students. The result was a spike in the percentage of Jewish students in the freshman class, from 16 percent in 1965 to about 30 percent in 1966. Clark's first class contained 58 percent public school students, more financial aid applicants than non-financial aid applicants, more minorities of every kind—and the highest SAT scores in Yale's history.

Clark's new admission policies came under direct fire from members of the Yale Corporation and alumni contributors. Summoned before the Yale Corporation in 1966 to discuss the changes, Clark explained that in a changing country, leaders might come from nontraditional places, including in the future minorities, women, Jews, and public school graduates. A Yale Corporation member retorted, "You're talking about Jews and public school graduates as leaders. Look around you at this table. These are America's leaders. There are no Jews here. There are no public school graduates here."

But Brewster and Clark, as well as their counterparts at other institutions, persisted. The number of black and other minority students accepted to Ivy League schools rose dramatically during the sixties. In 1960, the "Big Three" had collectively just 15 African American freshmen; in 1970, there were 284 (83 at Yale, 103 at Princeton, and 98 at Harvard). Overall, between 1970 and 1980, the number of African American college graduates increased by 91 percent.<sup>26</sup>

The changing face of U.S. higher education was part of a much more radical transformation of American society. The sixties and their aftermath did not end the primacy of white Anglo-Protestant men in the corporate world or in Washington, but women, blacks, and other minorities made impressive inroads in American business, politics, and culture. At the same time, new immigration policies dramatically changed the demographics of American society.

The 1965 Immigration Act abolished the racially and ethnically discriminatory national-origin quota system instituted in the

1920s. Immigration rates exploded, from roughly 70,000 a year during the quota years to about 400,000 a year by the early 1970s, 600,000 a year by the early 1980s, and over 1 million in 1989. Between 1990 and 2000, approximately 9 million immigrants arrived in the United States, more than in any other decade except the heyday of Ellis Island at the turn of the century. The sources of immigration changed as well. Whereas before 1965 the vast majority of immigrants to the United States hailed from Europe, after 1965 they came overwhelmingly from Asia and Latin America. The rise in legal migration was accompanied by an increase in illegal entries. In 1960, foreign-born residents of the United States were distributed principally as follows:

Italy	1,257,000
Germany	990,000
Canada	953,000
United Kingdom	833,000
Poland	748,000

In 2000, the distribution was as follows:

Mexico	7,841,000
China	1,391,000
Philippines	1,222,000
India	1,007,000
Cuba	952,000 <sup>27</sup>

#### AMERICAN WORLD DOMINANCE

In January 1991, during the First Gulf War, viewers around the world watched, rapt, as the world's most powerful bombs and smartest missiles, fired from history's first stealth aircraft and guided by the world's most sophisticated satellite navigation system, took out target after target—bunkers, bridges, air defense towers, Scud missile launchers—with laser precision. For the next five weeks, U.S. Apaches, Pave Lows, Hornets, and Nighthawks

pounded enemy territory, inflicting maximum destruction with a staggeringly low American fatality rate. Then, it was over: "the most awesome and well-coordinated mass raid in the history of air power." If there was any doubt before, the breathtaking precision of Operation Desert Storm made it crystal clear: The U.S. military was light-years ahead of any other military force on the planet.<sup>28</sup>

It was not only in military might that the United States had achieved a stunning global preeminence. In the 1980s, the productive capacity that America *added* to what it already possessed exceeded the *entire* productive capacity of West Germany—Europe's largest economy. After a relatively mild recession in 1990–91, the U.S. economy exploded yet again, reaping massive gains from the microprocessing revolution and yielding "the greatest period of wealth creation in the history of the world." While only a decade before, doubters had wondered whether U.S. business could remain competitive with Japan and a uniting Europe, by the 1990s America's economy had opened up a staggering lead over all other nations of the world. At the opening of the twenty-first century, America's gross domestic product, calculated in current dollars, represented an astonishing one-third of total world output, twice the size of Japan's and China's economies combined, and more than three times Great Britain's share of gross world output at its imperial height.

America was the country that benefited most from globalization. In the words of George Soros, an immigrant who had built a multibillion-dollar fortune in the United States from scratch, "The trend of globalization is that surplus capital is moving from the periphery countries to the center, which is the United States." Throughout the 1990s, American corporations like Wal-Mart, Nike, McDonald's, ExxonMobil, Coca-Cola, and Disney continued to dominate the world economy, despite anti-American sentiments. The dollar was the world's dominant currency, English the dominant language, and America's the most emulated culture. As the twentieth century came to a close, with Russia in chaos, Europe stagnant, and Japan mired in recession, the United States of America had no real competition—militarily, economically, even culturally. The world had a new hyperpower.<sup>29</sup>

There were many reasons behind the United States' sudden vault to world dominance, the most spectacular being the collapse of the former Soviet Union. Had the U.S.S.R. not imploded, we might still live in a bipolar world today. On the other hand, all the same factors that had steadily brought the United States to superpower status also underlay its achievement of world dominance.

It is well known that the United States won the race for the atomic bomb because of the contributions of Albert Einstein and other refugee physicists. Less well known is the similar role that immigrant scientists played in America's stunning triumph in the "information technology" race, which has transformed the world in the last quarter century. The boom America enjoyed during the 1980s and 1990s was directly fueled by two revolutionary developments, one technological and one financial: the discovery of the microchip and the creation of venture capitalism. The former gave birth to the computer age, and the latter to Silicon Valley, which in turn allowed new "information technology" to be exploited at lightning speed. The origins of these two developments are closely connected, and, once again, both were the fruit of American openness to immigrant talent and enterprise.

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Eugene Kleiner arrived in the United States in 1941 at the age of eighteen, having fled Vienna just before the Nazi takeover. Although lacking a high school diploma, Kleiner later graduated from Brooklyn Polytechnic with an engineering degree. In the early 1950s, Kleiner was recruited to California by the controversial physicist William Shockley, who, a few years earlier at Bell Labs, had participated in an unexpected invention. Using a bent paper clip, strips of foil, and a small piece of semiconducting material, Shockley's team produced a tiny device that, to their astonishment, amplified electric current. They called the device a transistor.

Shockley left Bell Labs to start his own company with the idea of developing a multiple-transistor semiconductor. Shockley insisted on using germanium as the semiconducting material. Kleiner and others on the team believed silicon would be superior, but the difficult and increasingly paranoid Shockley brooked no disagree-

ment. Soon, Kleiner and seven colleagues broke away, scraping together \$3,500 of their own money to pursue their silicon-based research. But even in the 1950s, \$3,500 was woefully inadequate, and it was virtually impossible to secure investment funding to back an untried scientific idea in its germinal stages. Nevertheless, after writing a now famous letter to a New York stockbroker, Kleiner managed to get his group funded. As a result, Kleiner and his colleagues became the officers of their own company, Fairchild Semiconductor.

Shockley won the 1956 Nobel Prize for his role in discovering the transistor. He also went on to gain considerable attention as a professor at Stanford, particularly for his racist eugenic beliefs. (He often publicly warned that "intellectually inferior" blacks were procreating at a dangerously high rate.) But his company, Shockley Semiconductor, was a commercial failure.

By contrast, Kleiner and his colleagues succeeded in producing the world's first commercially practical integrated circuit—out of silicon. Within a short time, Fairchild Semiconductor grew from twelve employees to 12,000, with revenues of \$130 million a year. Santa Clara Valley, previously known mainly for its plums and walnuts, would never be the same again.

Now wealthy, Kleiner decided to try something new. No doubt reflecting on his own difficulties starting Fairchild Semiconductor, Kleiner had the idea of creating an investment fund for breakthrough scientific innovations. Although venture capital is a familiar concept today, it was not in the early 1970s. Virtually unique in its time, the investment firm that Kleiner cofounded—which eventually became the now legendary Kleiner, Perkins, Caufield & Byers—adopted the strategy of aggressively searching out and betting big on untried technology while allowing (indeed encouraging) the inventors to retain a large ownership stake in the new companies. The formula succeeded: The companies that Kleiner, Perkins helped launch include AOL, Genentech, Compaq, Lotus Development, Netscape, Quantum, Sun Microsystems, Amazon.com, and Google.

Kleiner, who died in 2003, is often credited with both "starting

Silicon Valley" and "virtually inventing venture capital." The Kleiner, Perkins business model transformed American finance, fueling an explosion of venture capitalism in the last quarter of the twentieth century. It is no coincidence that the rise of venture capitalism owed so much to a refugee from Nazi Europe or that it played so large a role in America's world leadership in the computer age. Venture capitalism was nothing less than a late-twentieth-century incarnation of strategic tolerance. Just as in Rome or the Great Mongol Empire, America's global dominance has depended on its ability to bring in and mobilize the world's cutting-edge talents and intellectual capital. In the 1980s and 1990s, American venture capitalism was phenomenally successful in doing just that, offering enormous inducements to young scientists, inventors, and entrepreneurs of all backgrounds, rich or poor, white or minority, native or immigrant, to pursue their ideas in America.

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Andrew Grove, born András Gróf in Budapest, Hungary, was one of those entrepreneurs. In 1956, the twenty-year-old Grove and his family fled the turmoil of the Hungarian Revolution, arriving in New York City onboard a rusty ship the following year. Like Kleiner, Grove did not attend a fancy school. He graduated at the top of his class from the City College of New York, waiting tables to cover tuition. Hating the cold Northeast winters, Grove then made his way to the University of California, Berkeley, where he received his Ph.D. in chemical engineering in 1963.

For Grove, America was truly a land of tolerance and opportunity. As a boy in Hungary, he successfully hid from the Nazis with his family, only to be humiliated after the war by a childhood friend who told Grove that his father had forbidden him from playing with Jews. Later, when Hungary became a puppet state of the U.S.S.R. and the Soviet tanks rolled in, Grove's prospects seemed only bleaker.

Sunny California could not have been more different. After Berkeley, Grove got a job at Fairchild Semiconductor, the firm Eugene Kleiner had cofounded. There, Grove impressed everyone



with not just his energy and brilliance but his extraordinary attention to detail. In 1968, when Robert Noyce and Gordon Moore, two of Fairchild's other original founders, left the company to strike out on their own, they invited Grove to be their director of operations. The decision was a surprise to many: Grove's thick Hungarian accent and impaired hearing did not make him the likeliest of choices. But Noyce and Moore had only one employment criterion: they wanted the best talent available.

Noyce was one of the inventors of the integrated circuit. Moore was arguably the best pure engineer at Fairchild. Their plan in founding a new company was to turn the multiple-transistor integrated circuit into a memory device. In 1968, computer memory storage was still being handled through magnetic-core technology. Noyce and Moore believed they could pack more transistors onto their silicon chips and turn them into memory devices smaller, cheaper, and more powerful than magnetic-core memory. In short, Noyce and Moore set out to build what the world would soon call microprocessors, also known as microchips. They called their new company Integrated Electronics—later shortened to Intel.

Interestingly, the man who came to be widely regarded as the driving force behind Intel was neither Noyce nor Moore but Andy Grove. Before Intel could mass-produce its microprocessors, there were a thousand problems to overcome—technical, administrative, strategic, and commercial. It was Grove, more than anyone else, who solved these problems. Described in company pamphlets as one of Intel's three cofounders, Grove became Intel's president in 1979 and its CEO in 1987. When *Time* magazine named Grove as its 1997 Man of the Year, it described him as "the person most responsible" for the microchip and hence the Digital Revolution, which, in *Time*'s words, transformed the end of the twentieth century "the way the Industrial Revolution transformed the end of the [previous] one."

Under Grove's stewardship, Intel by the late 1990s was worth \$115 billion, more than IBM. It produced almost 90 percent of the world's PC microprocessors—churning out a quadrillion transistors every month, with seven million of them etched onto silicon

microchips smaller than a dime. Among the foreign giants that Intel towered over in the 1990s were Samsung, Toshiba, Hitachi, Fujitsu, NEC, and Siemens. Today, despite fierce competition and sporadic crises, Intel remains the world's largest producer of microprocessors.<sup>30</sup>

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Like the printing press and the steam engine in their eras, the microchip was the core invention of the computer age. It underlay all the new software and hardware that would give us CDs, DVDs, VCRs, iPods, iTunes, TiVo, digital cameras, cell phones, BlackBerries, and other products that would forever change the way human beings live, think, and communicate. It drove the explosion of a new Internet-connected global economy and what Thomas Friedman has called the "new talent era."

Grove was just one of a sea of immigrant venture-capital success stories that flooded America with wealth and catapulted the country to undisputed global economic and technological preeminence in the last decades of the twentieth century. Of the thousands of engineering and technology companies started in Silicon Valley between 1995 and 2005, an amazing 52.4 percent had at least one key founder who was an immigrant. Sun Microsystems cofounder Vinod Khosla and Hotmail cofounder Sabeer Bhatia emigrated from India. Tim Berners-Lee, creator of the World Wide Web, came to America from Britain. In 1998, a young Russian student named Sergey Brin took a leave of absence from Stanford's computer science Ph.D. program to found a small Internet search company with his fellow graduate student Larry Page. Today that company—Google—employs more than ten thousand people and has a market capitalization of more than \$136 billion.

Of course, the thousands of nerds, geeks, and visionaries that created Silicon Valley included plenty of third-, fifth-, and seventh-generation Americans. Fred Terman, Stanford University's influential engineering dean in the 1950s, was not an immigrant; neither was Bill Hewlett, Dave Packard, Robert Noyce, Gordon Moore, Bill Gates, or Steve Jobs. Nor were the gigantic fortunes made

in the 1980s and 1990s limited to immigrants. On the contrary, the unprecedented explosion in wealth displayed once again the unique ability of the American economy to reward enterprise and talent from any background, whether homegrown or imported. Of the four hundred richest Americans in 2000, an extraordinary two-thirds had built their fortunes from nothing.<sup>31</sup>

America's technological and economic dominance has translated directly into military supremacy. Today, the United States has ten *Nimitz*-class, nuclear-powered supercarriers, each one capable of carrying more than seventy fighter jets. No other country has a single aircraft carrier remotely comparable to these behemoths. The United States has a fleet of stealth aircraft, undetectable by radar, armed with one-ton radar-guided bombs. No other country has any. The United States also has by far the world's largest, most advanced arsenal of "smart" bombs, cruise missiles, unmanned high-altitude "drones," satellite surveillance systems, armored tanks equipped with night vision and laser range-finders, and nuclear-powered attack submarines—none of which would have been possible without the new microprocessor technology.<sup>32</sup>

In short, the United States' rise to world dominance depended heavily on its winning the high-tech race. Then, on September 11, 2001, technology was turned on the United States.