Innovate, Innovate! Here Comes American Rebirth

1 author:

Jan Nederveen Pieterse
University of California, Santa Barbara
157 PUBLICATIONS **4,728** CITATIONS

18

Innovate, Innovate! Here Comes American Rebirth

Jan Nederveen Pieterse

General problems that form the backdrop of the contemporary emphasis on innovation are postindustrial society, globalization, and the financial crisis. Postindustrial societies face the challenge of how to manage the application of labor-saving technologies and secure sufficient employment opportunities. With contemporary globalization comes the trend toward offshoring production and outsourcing services to low-wage zones and countries where levels of skill, education, and infrastructure are increasingly competitive with advanced countries. The financial crisis from 2007 to 2009, especially if it is understood as an economic crisis and the implosion of an accumulation model, carries broad implications. These problems are particularly salient in the case of the United States. Can contemporary innovation meet these challenges?

"Innovation can give America back its greatness," according to Jeff Immelt, CEO of General Electric. "This downturn is not simply another turning of the wheel but a fundamental transformation. We are, essentially, resetting the US economy. An American renewal must be built on technology" (Immelt 2009). If the United States is to recover from this crisis and regain its place as a leading world economy, it will be through new technologies, especially green technologies and smart solutions to contemporary problems. This assessment reflects an American consensus, shared by media and commentators, CEOs, business forums, and pol-

icy makers, and politicians from both parties. Specifically, this consensus comes at the confluence of several trends—a long-term commitment to innovation as part of modernity and part of the American self-image; and the role of information technologies, the green turn and the cultural turn, now in conjunction with financial risk and crisis. "Innovation economics" is in vogue. "Beneath the gloom, economists and business leaders across the political spectrum are slowly coming to an agreement: Innovation is the best—and maybe the only—way the U.S. can get out of its economic hole. New products, services, and ways of doing business can create enough growth to enable Americans to prosper over the long run" (Mandel 2009: 52).

Several innovation scripts are in vogue in the United States as ways out of the economic crisis and ways forward—in brief, engineering scenarios, going green, managerial innovations, the cultural economy, and various crisscross combinations. This treatment first reviews classic problems of innovation as an "applied Enlightenment" theme and then turns to contemporary American innovation scenarios. This is not a critique of innovation nor is it to detract from innovative proposals for technical, social, and institutional transformation and the forward thinking they represent. Rather, I distinguish between innovations and, on the other hand, innovation marketing and fluff. If we view innovation ideas and marketing as the "supply," we can measure it against the "demand" of economic, social, and institutional problems. So this is a critique of innovation rhetoric in relation to the challenges of American and global transformation. No doubt, innovation is a fruitful and valid theme; the question is valid for what purpose, on what terms, to what degree? Some problems are classic, some apply generally and widely, and some apply to the American situation in particular.

1. Innovation

The theme of innovation is a late-twentieth century extension of classic beliefs in progress, especially the Enlightenment theme of progress through reason and applied science (Nisbet 1980). In Europe this trope stretches from seventeenth-century scientific developments and eighteenth-century admiration for Chinese inventions, from Francis Bacon to Condorcet, Saint-Simon, Comte, and well beyond (Kumar 1987). Nineteenth-century scientific utopianism extended the Enlightenment faith in reason to social questions. The utopians of applied science and industry, such as Saint-Simon in France and Owen in England, believed that the application of new technologies could solve social problems. Amid the dislocations of early industrialism, this assumption triggered a sequence of problems.

"Scientific socialism" and historical materialism were responses to the scientific utopianism of the Saint-Simonians. Although there is a strong strain of technological determinism in Marxism, Marx held and Marxists generally hold that what matters is not technology per se (changes in forces of production) but the ownership and, accordingly, the uses of technology (relations of production). This issue remains the basic problem of the techno fix. Upheld by scientists, entrepreneurs, and policy makers, techno fixes claim or assume that technological change equals social progress, yet while claiming to address social questions, they tend to gloss over the relations of production and social dimensions.

In parentheses, broadly similar equations apply in development policies. Various forms of social engineering and "development from above" claim to achieve social development but in fact concern economic growth with "trickle down" factored in as an optimistic clause or an opportunistic assumption. Development without growth may be a difficult proposition, even so what matters is the *quality of growth* and experience shows that fast-lane growth may be detrimental to social development.

Technological determinism assumes that technologies steer society and culture; the constructivist view holds that technology is socially embedded and social forces steer and shape the application of technologies. Not technology rules but society rules, with its political and economic inequities. A key problem, also for ICT, is "disembedding technology from capital" (Nederveen Pieterse 2005: 26). In his probing critique of the "future industry," Rein de Wilde argues that "technological finalism" (the assumption that technologies point to and determine social outcomes) syncs with neoliberal market ideas (2000). Writing in 2000, this held true. However, what is striking overall is the flexibility of techno fixes, as if they served as an all-purpose elixir. Techno fixes offer to achieve mastery over nature and then promise to fix the problems caused by mastery over nature. Technical innovations produce and hone entrepreneurial competitiveness and sync with market forces, and when the market fails, techno fixes offer paths beyond the market. Innovations play multipurpose roles as crisis maker (as in financial engineering and quantitative investments) and as crisis breaker (as in "innovation economics").

This scenario illustrates the wide-ranging nature and applicability of human ingenuity and is as such unremarkable. Even so, in the process, techno fixes are large-scale instances of what economists call the "expert problem": experts often have a stake in the problem they diagnose and the solution they advocate. With some simplification, innovators are wont to plead innovation scripts in which their expertise holds trump cards. Urban analysts advocate urban solutions; university educators counsel the strategic importance of university education; asset managers

offer financial solutions. Knowledge is power; expertise is not neutral, and independent advice is a rare bird.

Innovation talk is both stimulating and soothing, stimulating for it portends to offer something new and soothing because it fits the matrix of decades of discourse and exhortation—innovate, innovate! To achieve and maintain competitiveness nations must innovate. Entrepreneurs and companies must innovate or perish. Consumers must innovate and keep their lifestyle and gadgets up to date. To accumulate, innovate! To compete and improve, innovate! Innovation talk reproduces the enchantment of the "new," what Vattimo called modernity's "tradition of the new," the charm of novelty and the fascination with newness and its identification with "better, improved, efficient," an association that dates from the late nineteenth century (Williams 1976) and defines modern times.

Innovation often combines with "leadership," a cherished trope in American-style business and management studies, which from there seeps into general culture. In the context of business, leadership originally refers to market share (as in a leading company that sets standards for a sector), but translated into corporate governance (as in the "imperial CEO") and as it seeps into public life, it inevitably carries authoritarian connotations and, of course, feeds into the growing remuneration gap between top managers and employees. The distinction between these two registers of "leadership" is rarely made. Cambridge University offers a master's degree in Sustainability Leadership and notes "Extraordinary times need Extraordinary Leadership."[1] Maastricht University (2009) opened its 2009/10 academic year with speeches devoted to "Innovation and Leadership" and a keynote address by an alumnus who is a social media entrepreneur who founded a large cyber company in China. He tells the audience, "To stay competitive CEOs should not only read blogs, but also actively write them." They should also Twitter and do "crowd sourcing" (Chijs 2009: 18).[2]

These ideas are extensions of the idea of postindustrial society, Toffler's "third wave" and the knowledge economy. Technological transformation is widely viewed as a major driver of economic change; in Schumpeterian perspectives, innovation is viewed as key to the business cycle and to the fifty-year long wave or Kondratieff cycle. Thus, science and technology policies are central to economic policy. Universities play a strategic role in knowledge and science and technology upgrading. Research parks and partnerships between universities and corporations embody this approach. Patent and licensing lawyers are to convert innovations into intellectual property. It is interesting that when it comes to science and technology and economics the critiques of postmodernism hardly seem to matter.[3]

This thinking is en vogue worldwide. In emerging societies it is "the race to the intelligent state" (Connors 1997), from Japan and the East Asian developmen-

tal state to the Singapore model of a highly educated, multilingual populace, smart and wired, with governance geared to promoting education, infrastructure, and technological change in a society open for business. The ideas of the smart developmental state, in parentheses, parallel the classic French idea of the revolutionary state as an intelligent "educator state," a state that attracts society's best educated elite. They are reflected in the growing role of higher education in emerging and developing societies. They are interwoven with the general recognition of human capital as the key ingredient in development, which is a keynote in the human development approach (Haq 1995; Sen 1995) as well as at the World Bank and its aspirations to be a "knowledge bank."

2. Innovation in the United States

Innovation matters and matters particularly in the United States. According to many accounts, it is the master key to whether or not the United States will recover and regain its global lead. In view of the depth of American economic malaise and its levels of indebtedness, three future scenarios for the United States are the *Titanic*, or a complete crash, the Phoenix, or a comeback, and a twenty-first century New Deal, or a social turn in American capitalism (discussed in Nederveen Pieterse 2008). Joachim Rennstich (2004) makes a case for an American Phoenix scenario on the model of the British experience. Britain "ruled the waves" during the commercial-maritime era, then declined, and in the course of the nineteenth century made a comeback as the industrial "workshop of the world." The United States, too, could have two shots at global hegemony, first through its lead in mass production and Fordism, which has now come to an end in the bankruptcy of the Detroit automobile industry, and then through a lead in high-tech products and services. In this and other scripts, the decisive component is innovation. With the wakeup call of crisis, the United States now experiences a scramble for innovation with media, magazines and books offering a steady stream of innovation ideas and exhortations. As White House chief of staff Rahm Emanuel noted, "you don't ever want a crisis to go to waste," and this sentiment runs through many reflections.

Ralf Dahrendorf referred to the United States as the country of the "angewandte Aufklärung" (applied Enlightenment). Industrial innovation, in particular mass production and Taylorism, automobiles, highway construction, aircraft, military industries, and space travel, and engineering feats such as the TVA, exemplify American technological and engineering prowess. Postwar innovation policy in the United States has been driven by two missions, to "fight communism and cancer" and focused on military industries and health care. Both have become leading hi-tech sectors. While this focus has led to major advances, it has also produced

white elephants. It has produced an expensive health care system that caters to elite needs and seeks return on fancy technologies with costly interventions and at times questionable medical necessity, alongside a byzantine insurance system that leaves many Americans (46.3 million in 2009) uninsured. It has made the military-industrial complex and the health care sector luxury liners of American society, well connected and politically powerful. In some respects, they have become worlds in themselves, functionally autonomous in relation to their original mission, with limited capacity for self-correction and virtually impervious to outside correction. The steadily growing military budget and the tremendous difficulties in reforming the American health care system signal the resilience of these institutional complexes. They have drained resources and talent away from other fields. With their growing cost they have become millstones around the neck of American society. Arguably, the United States has become a victim of its specialization, has overspecialized, in part as the price of American hegemony. Innovation leads, but it does not always lead forward; it can also lead sideways, or into a cul de sac.

Conventional approaches to socioeconomic change in the United States have been the techno fix and the spatial fix. Spatial fixes include suburbanization and the highway system, industrial zones, research parks, special zones, and tax incentives for corporations and, more recently, gentrification, gated communities and the new urbanism. A major spatial fix has been to move manufacturing production to low-wage, low-tax, low-service, no-union zones, initially in the American South and Southwest (moving industries from the Frost Belt to the Sunbelt), which I refer to as Dixie capitalism (Nederveen Pieterse 2004). In time it has extended to Mexico's maquiladores and to overseas special economic zones and low-wage zones from the Caribbean to Asia. Spatial fixes typically ignore and circumvent social questions by bypassing or deftly maneuvering around them while using public incentives to generate "spaces of capital" and fund private gains (Harvey 2001).

A recent techno fix, the new economy boom of the nineties, ended in the NASDAQ crash of 2000. Techno fixes serve as a circulation mechanism for excess liquid capital, for there is nothing like the lure of new technologies and the promise of new products (a better mouse trap) to attract and capture venture capital. "Internet economics," cyber-utopia scripts, and green tech are in vogue worldwide. Going digital is now the way forward from France to Malaysia. For every cyber utopia, of course, there is a dystopia (e.g., Harkin 2009). After the high-tech bubble of the nineties and the dotcom crash in 2000, this theme is less salient in the United States. Companies that one might expect to lead the recovery and a new wave of innovation—such as Microsoft and Dell—posted significant losses over the

first quarter of 2009.[4] In contrast to the nineties, Silicon Valley now experiences a credit squeeze; in Palo Alto the talk now is of lack of venture capital—along with speculation whether it might come from China. Unemployment in the San Francisco Bay Area stands at 11.8%, higher than the national average.[5]

An ambiguity in the American situation is that government contracts occupy vast swaths of the economy, notably military industries, and pharmaceuticals through the Medicare prescription drugs program, yet the dominant ideology is "free enterprise." Successive waves of deregulation, particularly since the Reagan era, of financial services, telecoms and energy create corporate oligopolies, yet this unfolded under the banner of the "free market." So, the commitment to "free enterprise" and the belief in the efficiency of market forces combine with massive government intervention. However, at the same time industrial policy has traditionally been anathema in the United States. While government policies and subsidies play a key part in innovation strategies worldwide, this is a hard sell in the United States, aside from select sectors. The 2009 stimulus measures and the $787 billion American Recovery and Reinvestment Act (ARRA) change this only marginally. The Act and White House policy "envisage a knowledge-based, 'green' economy, jumpstarted by a serious ramping up of science, technology and education expenditure" (Hayden and Basset 2009: 1).

Jeff Immelt of GE departs from orthodoxy when he argues that "the US government can play a catalytic role. . . . Today, my country needs an industrial strategy built around helping companies to succeed with investment that will drive innovation and support high-technology manufacturing and exports." Globalization and a "robust trade policy" are part of his proposal (Immelt 2009). However, Republicans in Congress, media and think tanks continue to blame government ("bureaucracy and red tape") for economic ills, oblivious to private sector excesses and government-led industrial strategies worldwide. This stalemate is difficult to overcome even amid a crisis.

Against this backdrop let's review the main American innovation scripts. As mentioned before, innovation scripts that rank as ways forward in the United States are engineering technologies, going green, managerial innovations, and the cultural economy.

1. *Engineering scripts* and the call to new technology figure in most innovation scenarios. The basic problem of current innovation scripts is simple: if it's feasible why hasn't it been done already? Besides a few sectors—such as military industries, pharmaceuticals, agricultural machinery, biotech—American corporations have not produced major new engineering products for some time. A case in point is the Detroit car industry. Why innovate when established

product lines offer steady profits? Rather than venturing new products such as the electric car, although the technology was available, GM and Ford opted to continue established value chains (pickup trucks, minivans, SUVs) and, instead, Toyota and Honda led the development of technologies such as the hybrid engine. According to Michael Mandel,

> Innovation has fallen short of its promise in recent years. While some info tech corporations are still thriving, other sectors that were supposed to drive growth have faltered. Biotech companies have produced new drugs, but so far no real breakthroughs. And nanotechnology has been slow to generate commercial products. Worse, the historic link between jobs and innovation seems to have vanished, at least for now. In the past, pioneering industries such as automobile manufacturing and aerospace were big job creators. Today, jobs in cutting-edge sectors are down 12% since their 2001 peak. (Those industries include computer and communications hardware, software and computer-systems design, aircraft, drugs and medical devices, telecom, and Internet outfits such as Google and Yahoo!). (2009: 54)

Innovation has precisely *not* been the common trend in American corporations for some time, with some exceptions such as drugs, military industries, aircraft, software and ICT. The problem of innovation in the American case is the radical disproportion between innovation rhetoric—pervasive, habitual and part of common sense—and the meager record of industrial innovation, particularly since the 1970s when offshoring and outsourcing became standard. Why innovate when low wages and special conditions overseas offer ample profit margins? The dearth of domestic investment in plants and technology is noticeable broadly since the 1970s and 80s when the trend of relocation to the Sunbelt and overseas took hold. Major industrial sectors—such as automobiles, consumer electronics, machine tools, computer chips—have been taken over by overseas producers that *have* continued to invest and innovate. "Instead of investing in new technologies to spawn further productivity gains corporate managers overpaid themselves, doled out cash to investors, consumed luxury items, and engaged in corporate takeovers and mergers and acquisitions" (Leicht and Fitzgerald 2007: 66).

Although engineering is the dominant model of innovation, most actual innovations in the United States in recent decades have been in services, in management and business processes, in health care (14 percent of the GNP) and financial services (20 percent of the GNP). Deregulation achieved major innovations; the deregulation of financial services, telecoms, and energy created vast new market opportunities (Schiller 1999) and set the stage for the Enron and WorldCom series of corporate scandals (Nederveen Pieterse 2004). Mergers and acquisitions

generate revenue for executives and financial intermediaries with a meager record in improving products or productivity. Special interest arrangements involving lobbyists, lawyers, lawmakers, and corporations; creative accounting, as in the Enron case; tax evasion and offshore tax havens; patents and licensing all represent innovations without necessarily adding value. Mathematics applied in quantitative investments (the 'quants') and hedge funds and financial products such as fancy futures and derivatives paved the way for the 1998 crash of the fancy Long Term Capital Management hedge fund, and CDOs (collateralized debt obligations, credit packages passed on to other banks) and sub-prime loans and set the stage for the sub-prime mortgage crisis of 2007.

2. *Going green* is a major discourse of economic revitalization in the United States and worldwide. Going green is an extension of engineering scripts, sometimes cast as a "Green New Deal" (Dickey and McNicoll 2008). For the United States, the problems are glaring. The US has been the world's guzzler of energy and other resources, has long kept aloof from international environmental agreements, such as the Kyoto Protocol, and has been a laggard in energy saving technologies. This was the point of President G.H.W. Bush's statement, "the American way of life is not negotiable." No wonder the United States lags in these technologies. Others lead in key technologies—China in solar panels, wind turbines and "clean coal," Germany in solar energy as well, Japanese companies in hybrid engines, France in nuclear technology, and so forth.[6] Red China is becoming "Green China" with large-scale investments in wind turbines and solar panels in the Gobi desert and has overtaken the U.S. as the largest market for wind energy (Garschagen 2009).

No doubt green tech is a major way forward, globally and for the United States. It plays a major role in government stimulus funding. However, it is unlikely that the U.S. can obtain a lead in these technologies, and it is more likely that, in the medium term, it will be an importer of green tech.

3. *Management innovations* have long been a major strand of American innovation. Business analysts distinguish several types of innovation—companies known for innovative products (e.g., Apple, Microsoft, Samsung), for innovative processes (e.g., Toyota, Wal-Mart), for innovative business models (e.g., Goldman Sachs, HP, Reliance) and for innovative customer experiences (e.g., Google, Amazon). According to the *Business Week* Innovation Index, "the companies with innovative business models tend to have the highest average stock returns and highest average revenue growth of all the companies in the index" (Jana 2008: 48). Thus, by this account, launching new products generates less revenue than innovating business models. No wonder that in many perspectives managerial innovations and new management methods in recruit-

> ing, deploying talent, producing, and valuing services, take precedence over product innovations. Interestingly, in *Business Week*'s Innovation Index, Goldman Sachs comes out as the most innovative and the most revenue and shareholder value generating company. Placing the leading and politically best connected Wall Street investment bank on top suggests a rank order of priorities with financial engineering in the lead, precisely at a time when the social value of financial innovations is being widely questioned.

Placing Toyota and Wal-Mart in one category is odd as well. Toyota has been a production process innovator, pioneering the flexible production techniques of lean manufacturing or just-in-time production, which is also known as Toyotism, whereas Wal-Mart's contribution is minor and in logistics, not in production (cf. Friedman 2005).

One type of managerial innovation seeks to help companies recover from previous innovations and reorganizations—by going back to core business. The corporate pendulum swings from innovation and expansion to revamping oneself back to basics and implementing innovation to overcome innovation (cf. Collins 2009).

With managerialism as a cultural ethos comes recurrent reorganization in institutions subject to managerial innovation, including public services, hospitals, and universities. Part of the innovation experience is that regardless of the efficacy of reorganization, invariably the upshot is that the influence and remuneration of administrators are vastly increased. The heading is innovation, but the outcome is the steady increase of managerialism.

Given the emphasis on generating revenue and shareholder value, wave upon wave of MBAs inflict innovations on new and existing product lines and services to cut cost and enhance revenue. Airlines squeeze seating space by inches, no longer serve peanuts (pretzels are cheaper), require payment for checked luggage; service personnel are scarce on the floors of big box stores, and so forth; countless cost cutting and revenue enhancing measures, large and small, shape our lives. We happen to inhabit the world of corporate revenue generation and have no choice but to volunteer as extras in their scripts. Besides, business models seep into public life and general culture. Low-tax and low-service conditions in most American states have long privatized many services such as waste collection. British conservatives take the "no frills" airline business model as a template for council public services, so "residents pay extra for service above basics" as part of a "relentless drive for efficiency" to cut cost in a time of economic crisis.[7]

So the question is innovation for what purpose? Innovation in the shareholder model of capitalism yields different criteria of success and different outcomes than innovation in stakeholder capitalism. Arguably, one set of innovations limits options and reduces the quality and well-being in the other set; shareholder and

stakeholder interests are not generally a win-win equation. Hence the generalizing, multi-purpose talk of innovation is misleading—innovation for what purpose is the question. To foster economic growth is the standard answer. However, this approach only shifts the problem. Economic growth during past decades has come with sharply increasing social inequality. Thus, *what kind of growth* and what kind of innovation are the real questions.

Business organization outside the U.S. has been drawing attention too. Prahalad and Krishnan (2009) examine business models of companies in India and Asia. Work on business innovations that cater to the poorest consumers (Prahalad 2006) also breaks the mold. Other work focuses on the growing international competitiveness of companies in emerging societies (e.g., Sirkin et al. 2008). Here science and technology policies are as salient as in the OECD economies, but because of the development problems that these societies also face, there is often greater attentiveness to the general economic policy that innovation is embedded in.

4. A further script centers on the strategic importance of the *cultural economy* or the creative economy in economic growth and recovery. Variants of this script include the creative class and Richard Florida's urban revitalization and renewal perspectives. Florida's argument is essentially a cultural variant of the economic geographers' spatial fix—with urban spaces remapped as cultural spaces and culture redefined as human capital and redeployed as a growth engine. Thus, key to the revitalization of American cities is to attract the "creative class" of "scientists, engineers, managers, and professionals," as a recent article declares: "The spillovers in knowledge that result from talent-clustering are the main cause of economic growth. Well-educated professionals and creative workers who live together in dense ecosystems, interacting directly, generate ideas and turn them into products and services faster than talented people in other places can . . . Big, talent-attracting places benefit from accelerated rates of 'urban metabolism' . . ." (Florida 2009: 50).

Florida notes, too, "it's not that 'fast' cities are immune to the failure of business, large or small," and he refers to the 1873 crisis and credit freezing up. However, "unlike many other places, they can overcome business failure with relative ease, reabsorbing their talented workers, growing nascent businesses, founding new ones" (2009: 51). There are various slips in this argument. Yes, education, talent, and infrastructure are resilient. The most famous case is the success of the Marshall Plan, though it is worth noting that it is the *only* success of major foreign aid. The key problem is that the clustering argument applies if and as long as certain conditions at the margin are met—in particular, access to credit and capital and an institutionally supportive environment. Without credit, clustering is powerless. This dilemma now prevails in Silicon Valley. The talent is there, but where

is the money? Without venture capital, the Valley is dry. A similar conundrum was faced when "social capital" was sold as the solution for poor urban neighborhoods and as a strategic ingredient in empowerment and enterprise zones; as Portes and Landolt noted (1996), social capital is powerless without jobs. Thus, in these instances the expert advice focuses on the necessary but not on the sufficient conditions for recovery and glosses over the margin conditions for clustering to deliver.

Florida sells the same product twice—once as an elite project and again as an egalitarian project. Thus, he argues, rightly, that the world isn't flat but spiky (Florida 2008). Throughout his article on "how the crash will reshape America," he argues for "elite cities" and the clustering of talent; yet, at the end, as an afterthought, he observes "we need to make elite cities and key mega regions more attractive for all of America's classes, not just the upper crust" (2009: 56). Since he does not give specific reasons why this should be done, it can be read as a social whitewash of what is essentially an elite project.

Florida notes that not "every factory town is locked into decline. You need only look at the geographic pattern of December's Senate vote on the auto bailout to realize that some places, mostly in the South, would benefit directly from the bankruptcy of GM or Chrysler and the closure of auto plants in the Rust Belt. Georgetown, Kentucky; Smyrna, Tennessee; Canton, Mississippi: these are a few of the many small cities, stretching from South Carolina and Georgia all the way to Texas, that have benefitted from the establishment, over the years, of plants that manufacture foreign cars" (2009: 52).

There is a remarkable silence in this argument. That the Sun Belt benefits from the decline of the Rust Belt is the cliché of the great American shift to the South, which dates back to the seventies and eighties. This is hardly news. It is quite odd that this trend should form part of a 2009 post-crisis feel-good narrative, for it is rather a manifestation of and contributing factor to the crisis. What is not mentioned is the rationale and downside of this shift; it is a shift to low wage, low tax, low service, no union states—a turn to Dixie capitalism (Nederveen Pieterse 2004, 2008). The American South and Southwest represented and continue to represent as it were a vast special economic zone where access to cheap labor reduced the incentive to innovate. So this is not a recovery scenario but a high-exploitation capitalism script with steep social inequality built in. With ample irony, it may be termed the revenge of the Confederacy. The banner success companies of the South, such as Wal-Mart, Enron, WorldCom, HealthSouth, have typically not contributed new products but have thrived on business process and financial innovations, often of a questionable nature. The current fiscal crisis and state of financial

emergency of California is another manifestation of the limits of the low-tax model. Here fiscal crisis also affects the knowledge sector such as public education and the University of California system.

At any rate, the down-turn throughout the United States is of little comfort to Detroit and Miami. Current American recovery is hampered and mortgaged by the previous recovery from the slump of the seventies and the "second slump" of 1987. Then the way out was to recover profitability by moving plants to low-wage, low-tax zones in the American South and overseas. As American median wages stagnated in line with the shift to the low-wage model, consumption levels continued to rise. This conundrum was papered over by vast credit expansion—household credit card debt, home equity financing, adjustable rate mortgages and sub-prime mortgages were enabled by a Federal Reserve low-interest regime and gargantuan borrowing on a world scale, which absorbed 70 to 80 percent of world net savings. The American pattern of low wages and high consumption has been papered over by a vast debt expansion of which the bill is now coming due. These recovery solutions now limit the available choices. The low-tax, low-wage, high-profits, and high-social cost constellation is not a way forward. Low tax revenues and high debt, external and domestic, constrain state and federal government capacities. It does not work to offer the script that has precipitated crisis as a way out of crisis now.

If we interpret the cultural economy as a sector (including, e.g., Hollywood, television, the arts, design, fashion), it is vibrant and significant, but not nearly significant enough in job creation to make up for the millions of jobs lost in manufacturing and through outsourcing. As a sector, the cultural economy also faces a credit squeeze, and foreign ownership has been rising (for instance in the Hollywood studio system). The cultural economy, though surely significant, is simply not large and substantial enough to employ enough American workers; just as software, high-tech, and back office services in India will never employ enough of India's workforce. India needs a vibrant agriculture and a manufacturing sector. The United States, too, needs an industrial sector.[8] A related problem is that when manufacturing goes offshore, service jobs in design, research and development, transport, insurance, in other words the infrastructure of manufacturing, are also lost. If we interpret the cultural economy as a slice and dimension of production and services generally—as in Florida's "creative class" of "scientists, engineers, managers, and professionals"—it is certainly a key dimension, but precisely because it is interwoven with the economy generally it cannot also serve as a master key to renewal or as an economy rebirth snake oil.

3 Rebirth Bottlenecks

Part of the backdrop of this discussion is the gradual "decoupling" of the world economy from the American economy.[9] Reports by the CIA and the U.S. National Intelligence Council (2008) anticipate a drastically reduced global role of the United States by 2025. This issue is not in dispute; the "rise of the rest" is here to stay. Meanwhile in the wake of the crisis, innovation talk has gone in overdrive in the United States and Europe. "How innovation can fight the downturn," "Hard times can drive innovation," and "Why an economic crisis could be the right time for companies to engage in 'disruptive innovation'" are common headlines on both sides of the Atlantic.[10] Crisis is a rupture with old paths and stimulus funding opens new windows. Some innovation talk, of course, reads like advertisements and funding solicitations.

The credit squeeze will pass, yet the horizon is dark. Bailouts, stimulus spending, and fiscal pressure from aging baby boomers add to the American debt overhang. The external account deficit is at 13 percent of GNP. The status of the U.S. dollar as world reserve currency has been slipping. If the U.S. loses its AAA credit rating, interest rates will rise and will burden recovery. However, in the end, it is not clear whether the main bottleneck for American renewal is finance or lies deeper. Michael Mandel questions the importance of funds:

> If money alone were enough to guarantee successful innovation, the US would be in much better shape than it is today. Since 2000, the nation's public and private sectors have poured almost $5 trillion into research and development and higher education, the key contributors to innovation. Nevertheless, employment in most technologically advanced industries has stagnated or even fallen. The number of domestic jobs in the computer and electronics sector continues to plunge while pharmaceutical and biotech companies lay off as many workers as they hire. And even the industry category that includes Google (GOOG)—Internet publishing and Web search portals—has added only 15,000 jobs since 2003. (2009: 52–53)

Indeed, money does not explain the lack of domestic investment. After all, where have all the corporate profits from offshoring and outsourcing gone? The larger problem is *profitability* and the circumstance that American corporations have become habituated to operating in low wage, low tax, and low regulation environments, at home and abroad.

The key comparison is between the United States and other advanced societies. All have offshored production to low-wage zones, but companies in Europe and

Japan have generally balanced this outsourcing with domestic investments in new plants and technology, whereas most American companies have not, so American deindustrialization has been far more drastic and far-reaching.[11] There are three sets of hypotheses that may explain this difference. First, the availability of vast low-wage, low tax-zones within the United States—the American South and Southwest, of which there is no equivalent in other advanced countries (in many countries there are poor or backward areas, but not with a different legal and institutional structure). Essentially this is a legacy of slavery, Reconstruction, and Jim Crow. Indeed, there is domestic investment in the United States and also foreign direct investment, but the bulk is in the low-wage zones.

The second hypothesis is the perks and the price of American hegemony. The commerce department and the Export-Import Bank have long facilitated and supported the outward investment of U.S. companies as part of American outward expansion, going back to the Cold War era. Outward investment meant doing a service to the American cause when the cause was global expansion. No such mission or comparable support existed for European or Japanese companies. Part of hegemony, too, was the military-industrial bias in American innovation policies. The laissez faire, free enterprise philosophy further meant, unlike other advanced nations, no industrial policy and no national economic strategy (cf. Prestowitz 2005).

The third hypothesis concerns the overall character of American society. Unlike other advanced nations, American modernity is not a post-feudal modernity but a late-start, historically thin modernity. One of the implications is: no feudalism, no noblesse oblige. As an immigrant society, the United States is the envy of many other societies and rightly so. Almost nowhere else can (some) new immigrants rise to prosperity, status, and high office. However, taking a step back, this also has a dark side. Why invest domestically when the society is heterogeneous from the outset (Native peoples, slavery, indentured labor) and is an immigrant society in which ethnic and racial prejudice are rife, social solidarity is thin, inequality is high and growing, and assorted spatial fixes shelter the rich from the less well-off and their problems of crime, violence, drugs, unhealthy lifestyles, and obesity? The United States is a mixed society but also a fractured and class segregated society in which elites generally display less social solidarity and domestic allegiance than in other advanced societies. By world standards, American elites are deviant (Robinson and Murphy 2009). Patriotism (which is exceptionally high in the United States) is not the equivalent of social cohesion.

These factors together have prompted a greater disposition toward outward investment for American companies than for European and Japanese companies.

With this commitment comes path dependence. It is also an illusion that basic industry and research and development can be separated. With offshoring traditional industries, increasingly research and development move offshore, too, as do corporate profits.

The main bottleneck in the American "reset economy," then, is that corporations have become habituated to low-wage, high-profit investment. If this indeed is the main explanation for the relative lack of U.S. domestic investment, then stimulus funds and innovations will make little difference. I do not share the views of the "deficit hawks" and think government deficit spending is the right way to go. Even so, a Keynesian approach works in relation to a Keynesian problem and does not work when investors seek profits in a globalized economy; in fact, stimulus spending may increase imports into the United States. When the key problem is not innovation but profit margins, government policies will have a limited impact.

References

Chijs, Marc van der. 2009. Entrepreneurship and internet innovation: Lessons and experiences, in Maastricht University. *Innovation and leadership: Opening academic year 2009/2010.* Maastricht University Office.

Collins, Jim. 2009. *How the mighty fall and why some companies never give in.* New York: HarperCollins.

Connors, M. 1997. *The race to the intelligent state: Charting the global information economy in the 21st century.* Oxford: Capstone.

Conor, B. 1991. *Japan's new colony—America.* Greenwich, CT: Perkins Press.

de Wilde, Rein. 2000. *De voorspellers: een kritiek op de toekomstindustrie.* Amsterdam: De Balie.

Dickey, C., and T. McNicoll. 2008. Why it's time for a "Green New Deal." *Newsweek*, November 10: 49.

Florida, Richard. 2004. *The rise of the creative class.* New York: Basic Books.

Florida, Richard. 2008. *Who's your city?* New York: Basic Books.

Florida, Richard. 2009. How the crash will reshape America. *The Atlantic*, March: 44–56.

Friedman, Thomas L. 2005. *The world is flat.* New York: Farrar Straus and Giroux.

Garschagen, O. 2009. Windmolens in de Gobiwoestijn, *NRC Handelsblad*, September 12–13: 18.

Gross, Daniel. 2007. The U.S. is losing market share, so what? *New York Times*, January 28: BU5.

Haq, M. ul. 1995. *Reflections on human development.* New York: Oxford University Press.

Harkin, James. 2009. *Cyburbia: The dangerous idea that's changing how we live and who we are.* London: Little, Brown.

Harvey, David. 2001. *Spaces of capital.* New York: Routledge.

Hayden, Jennifer, and Julie Basset. 2009. Innovation for recovery: recovering innovation. *The Inno-Grips Newsletter*, February: 1–3.

Immelt, Jeff. 2009. Innovation can give America back its greatness. *Financial Times*, July 9: 9.

Jana, Reena. 2008. Indata. *Business Week*, September 22: 48–50. http://www.businessweek.com/innovate/global_index/

Kumar, Krishan. 1987. *Utopia and anti-utopia in modern times*. New York: Oxford University Press.

Leicht, Kevin T., and Scott T. Fitzgerald. 2007. *Postindustrial peasants: The illusion of middle class prosperity.* New York: Worth Publishers.

Lyotard, J-F. 1979. *La condition postmoderne: Rapport sur le savoir*. Paris: Minuit. Trans.: *The postmodern condition: A report on knowledge*. Manchester: Manchester University Press, 1986.

Maastricht University. 2008–2009. *Leading in learning: Innovation is our focus.* Maastricht University Communication and Relations Office.

Maastricht University. 2009. *Innovation and leadership: Opening Academic Year 2009/2010, articles, speeches, interviews.* Maastricht University Office.

Mandel, Michael. 2009. Can America invent its way back? *Business Week*, September 22: 52–60.

National Intelligence Council. 2008. *Global Trends 2025*. Washington, DC. Report released 20 November 2008. http://www.acus.org/publication/global-trends-2025-transformed-world-.

Nederveen Pieterse, Jan. 2004. *Globalization or empire?* New York: Routledge.

Nederveen Pieterse, Jan. 2005. Digital capitalism and development: The unbearable lightness of ICT4D. Iin Geert Lovink and Soenke Zehle, eds. *Incommunicado reader.* Amsterdam: Institute of Network Culture.

Nederveen Pieterse, Jan. 2008. *Is there hope for Uncle Sam? Beyond the American bubble*. London: Zed.

Nisbet, R. A. 1980. *History of the idea of progress*. New York: Basic Books.

Portes, A., and P. Landolt. 1996. The downside of social capital, *American Prospect*, 26: 18–21, 94.

Prahalad, C. K. 2006 *The fortune at the bottom of the pyramid.* Upper Saddle River, NJ: Wharton School Publishing.

Prahalad, C. K., and M. S. Krishnan. 2008. *The new age of innovation*. New York: McGraw-Hill.

Prestowitz, Clyde. 2005. *Three billion new capitalists: The great shift of wealth and power to the East.* New York: Basic Books.

Rennstich, Joachim Karl. 2004. The Phoenix cycle: Global leadership transition in a long-wave perspective. In Thomas E. Reifer, ed. *Globalization, hegemony and power: Antisystemic movements and the global system.* Boulder, CO: Paradigm.

Robinson, M., and D. Murphy. 2009. *Greed is good: Maximization and elite deviance in America.* Lanham, MD: Rowman and Littlefield.

Schiller, Dan. 1999. *Digital capitalism: Networking the global market system.* Cambridge, MA, MIT Press.

Sen, Amartya. 1999. *Development as freedom.* New York: Knopf.

Sirkin, H. L., J. W. Hemerling, A. K. Bhattacharya. 2008. *Globality: Competing with everyone from everywhere for everything.* New York: Business Plus.

Williams, R. 1976. *Keywords.* Glasgow: Fontana and Croom Helm.

Zysman, John, and Stephen Cohen. 1987. *Manufacturing matters: The myth of the post-industrial economy.* New York: Basic Books.

Notes

1. Advertisement in *Financial Times,* September 21, 2009: 13.
2. A motto of Maastricht University is "Innovation is our focus." Its innovation perspective is social: "Innovation is most effective when it is anchored in society." "It is innovation that holds the key to a wide range of social problems." Through it the university seeks to "contribute to a sustainable form of globalization" (Maastricht University 2008–2009: 5). The implication is that the university adopts a stakeholder perspective on innovation.
3. E.g., Lyotard 1979, 1986.
4. A report notes, "Microsoft revenues down 17%," "Results damp hopes of broad tech recovery." Results for Apple, Intel and IBM have been better. F. Waters, "Microsoft revenues down 17%," *Financial Times,* July 24, 2009, 12.
5. The report is mixed. B. Johnson, "Gloom of recession can't cloud over Bay Area's spirit of hi-tech optimism," *Guardian Weekly,* September 11, 2009: 9.
6. A specific consideration is that "China produces more than 99 percent of the world's supply of dysprosium and terbium, two rare minerals essential to recent breakthroughs in high-technology industries," in particular wind turbines and hybrid engines. K. Bradsher, "Backpedaling, China eases proposal to ban exports of some vital minerals," *New York Times,* September 3 2009.
7. "A leading Conservative council is using the business model of budget airlines Ryan Air and easyJet to inspire a radical reform of public service provision that is being seen as a blueprint for Tory government." R. Booth, G. Hinsliff, "Tories take budget airline route with 'no fringe' council cutbacks," *Guardian Weekly,* September 4, 2009, 13.
8. Cf. Zysman and Cohen 1987.
9. "The US' share of global GDP fell to 27.7 percent in 2006 from 31 percent in 2000 . . .the share of the BRICs rose to 11 percent from 7.8 percent. China alone accounts for 5.4 percent. . .in 2007 the BRICs' contribution to global growth was slightly greater than that of the US for the first time. In 2007. . .the US will account for 20 percent of global growth, compared with about 30 percent for the BRICs" (Gross 2007).

10. The *Inno-Grips Newsletter* has done a literature review of "innovation in times of crisis," February 2009: 8, including "Hard times can drive innovation," *Wall Street Journal*/Business Insight, December 15, 2008. "Why an economic crisis could be the right time for companies to engage in 'disruptive innovation," Knowledge@Wharton, November 12, 2008. C. Leadbetter, J. Meadway, "Attacking the recession—How innovation can fight the downturn," NESTA Discussion paper, December 2008. Euractiv, "Investing in innovation 'key to economic recovery,'" January 29, 2009. A *Financial Times* article notes "The weak economy is forcing companies to innovate" (September 21, 2009: 13).
11. This aspect is discussed more extensively in Nederveen Pieterse, 2008.