

Keeping Score: *Is my economy bigger than your economy?*

As I have mentioned, in the late 1980s I was a young speechwriter working for the governor of Maine. One of my primary responsibilities was finding jokes. “Funny jokes,” he would admonish me. “Belly laughs, not chuckles.” Two decades later, one of those jokes stands out, not so much because it is funny now, but rather for what it tells us about what we were thinking then. Recall that George Bush, Sr., was president and Dan Quayle was vice president. New England was in the midst of an economic slump and Maine was particularly hard hit. Meanwhile, Japan appeared to be the world’s economic powerhouse. The joke goes like this:

While vacationing at Kennebunkport, George H. W. Bush is hit on the head with one of his beloved horseshoes. He slips into a coma. Nine months later, he awakens and President Quayle is standing at his bedside. “Are we at peace?” Mr. Bush asks.

“Yes. The country is at peace,” says President Quayle.

“What is the unemployment rate?” Mr. Bush asks.

“About 4 percent,” says President Quayle.

“Inflation?” queries Mr. Bush.

“Under control,” says President Quayle.

“Amazing,” says Mr. Bush. “How much does a loaf of bread cost?” President Quayle scratches his head nervously and says, “About 240 yen.”

Believe it or not, that was good for a belly laugh. Some of the humor derived from the prospect of Dan Quayle as president, but mostly it was an outlet for anxiety over the popular notion that Japan was on the brink of world economic domination. Obviously times change. We now know that Japan went on to suffer from more than a decade of economic stagnation while the United States moved into what would become the longest economic expansion in the nation’s history. The Nikkei Index, which reflects prices on the Japanese stock market, peaked at 38,916 just around the time the governor of Maine was telling that joke. Today the Nikkei is just over 10,000.

Of course, Americans aren’t gloating about that these days. After fifteen years of a generally strong economy in the United States, we stumbled into the worst economic downturn since the Great Depression. Why is it that all economies, rich and poor, proceed in fits and starts, stumbling from growth to recession and back to growth again? During the robust growth of the 1990s, the labor market was so tight that fast-food restaurants were paying signing bonuses, college graduates were getting stock options worth millions, and anyone with a pulse was earning double-digit returns in the stock market. Consumers were buoyed by rising home and stock prices. Capital flowed in from the rest of the world, most notably China, making it easy for Americans to borrow cheaply.

And then everything went wildly off track, like one of those NASCAR wrecks. Consumers were suddenly overburdened with debt and stuck with homes they couldn’t sell. The stock market plunged. The unemployment rate climbed toward 10 percent. America’s biggest banks were on the brink of insolvency. The Chinese started mus-

ing publicly about whether they should continue to buy American treasury bonds. We liked it better the first way. What happened?

To understand the cycle of recession and recovery—the “business cycle,” as economists call it—we need to first learn about the tools for measuring a modern economy. If the president really did wake up from a coma after suffering a horseshoe accident, it’s a fair bet that he would ask for one number first: gross domestic product, or GDP, which represents the total value of all goods and services produced in an economy. When the headlines proclaim that the economy grew 2.3 percent in a particular year, they are referring to GDP growth. It means simply that we as a country produced 2.3 percent more goods and services than we did the year before. Similarly, if we say that public education promotes economic growth, we are saying that it raises the rate of GDP growth. Or if we were asked whether an African country is better off in 2010 than it was in 2000, our answer would begin (though certainly not end) with a description of what happened to GDP over the course of the decade.

Can we really gauge our collective well-being by the quantity of goods and services that we produce? Yes and no. We’ll start with “yes,” though we will come to “no” before the chapter is done. GDP is a decent measure of our well-being for the simple reason that what we can consume is constrained by what we can produce—either because we consume those goods directly or because we trade them away for goods produced somewhere else. A country with a GDP per capita of \$1,000 cannot consume \$20,000 per capita. Where exactly are the other \$19,000 worth of goods and services going to come from? What we consume can deviate from what we produce for short stretches, just as family spending can deviate from family income for a while. In the long run, however, what a country produces and what it consumes are going to be nearly identical.

I must make two important qualifications. First, what we care about

is *real* GDP, which means that the figure has been adjusted to account for inflation. In contrast, *nominal* figures have not been adjusted for inflation. If nominal GDP climbs 10 percent in 2012 but inflation is also 10 percent, then we haven't actually produced more of anything. We've just sold the same amount of stuff at higher prices, which has not made us any better off. Your salary will have most likely gone up 10 percent as well, but so will have the price of everything you buy. It's the economic equivalent of swapping a \$10 bill for ten \$1 bills—it looks good in your wallet, but you're not any richer. We will explore inflation in greater depth in the next chapter. For now, suffice it to say that our standard of living depends on the quantity of goods and services we take home with us, not on the price that shows up at the register.

Second, we care about *GDP per capita*, which is a nation's GDP divided by its population. Again, this adjustment is necessary to prevent wildly misleading conclusions. India has a GDP of \$3.3 trillion while Israel has a GDP of \$201 billion. Which is the richer country? Israel by far. India has more than a billion people while Israel has only seven million; GDP per capita in Israel is \$28,300 compared to only \$2,900 in India. Similarly, if a country's economy grows 3 percent in a given year but the population grows 5 percent, then GDP per capita will fall. The country is producing more goods and services, but not enough more to keep up with a population that is growing faster.

If we look at real GDP in America, it tells us several things. First, the American economy is massive by global standards. American GDP is roughly \$14 trillion, which is only slightly smaller than all the countries of the European Union combined. The next-largest single economy is China, which has a GDP of around \$8 trillion. On a per capita basis, we are rich, both by global standards and by our own historical standards. In 2008, America's GDP per capita was roughly \$47,000, slightly less than Norway, Singapore, and a few small countries with a lot of oil, but still nearly the highest in the world. Our real GDP per capita is more than twice what it was in 1970 and five times what it was in 1940.

In other words, the average American is five times as rich as he or she would have been in 1940. How could that be? The answer is back in Chapter 5: We're more productive. The day is not any longer, but what we can get done in twenty-four hours has changed dramatically. The Federal Reserve Bank of Dallas came up with a novel way to express our economic progress over the course of the twentieth century: Compare how long we had to work in 2000 to buy basic items with how long we had to work to buy the same items in 1900. As the officials at the Dallas Fed explain, "Making money takes time, so when we shop, we're really spending time. The real cost of living isn't measured in dollars and cents but in the hours and minutes we must work to live."¹

So here goes: A pair of stockings cost 25 cents in 1900. Of course, the average wage at the time was 14.8 cents an hour, so the real cost of stockings at the beginning of the twentieth century was one hour and forty-one minutes of work for the average American. If you walk into a department store today, stockings (pantyhose) are seemingly more expensive than they were in 1900—but they're not. By 2000, the price had gone up, but our wages had gone up even faster. Stockings in 2000 cost around \$4, while America's average wage was over \$13 an hour. As a result, a pair of stockings cost the average worker only eighteen minutes of time, a stunning improvement from an hour and forty-one minutes a century earlier.

The same is true for most goods over most long stretches of time. If your grandmother were to complain that a chicken costs more today than it did when she was growing up, she would be correct only in the most technical sense. The price of a three-pound chicken has indeed climbed from \$1.23 in 1919 to \$3.86 in 2009. But grandma really has nothing to complain about. The "work time" necessary to earn a chicken has dropped remarkably. In 1919, the average worker spent two hours and thirty-seven minutes to earn enough money to buy a chicken (and, I'm guessing, at least another forty-five minutes for the mashed potatoes). In short, you would work most of your morning

just to earn lunch. How long does it take to “earn” a chicken these days? Just under thirteen minutes. Cut out one personal phone call and you’ve got Sunday dinner taken care of. Skip surfing the web for a little while and you could probably feed the neighbors, too.

Do you remember the days when it was novel, perhaps even mildly impressive, to see someone speaking on a cellular phone in a restaurant? (Okay, it was a short stretch of time, but a cell phone did have a certain cachet in the mid-1980s.) No wonder; back then a cell phone “cost” about 456 hours of work for the average American. Almost three decades later, cell phones are just plain annoying, in large part because everyone has one. The reason everyone has one is that they now “cost” about nine hours of work for the average worker—98 percent less than they cost twenty years ago.

We take this material progress for granted; we shouldn’t. A rapidly rising standard of living has not been the norm throughout history. Robert Lucas, Jr., winner of the Nobel Prize in 1995 for his numerous contributions to macroeconomics, has argued that even in the richest countries, the phenomenon of sustained growth in living standards is only a few centuries old. Other economists have concluded that the growth rate of GDP per capita in Europe between 500 and 1500 was essentially zero.² They don’t call it the Dark Ages for nothing.

We should also make clear what it means for a country to be poor by global standards at the beginning of the twenty-first century. As I’ve noted, India has a per capita GDP of \$2,900. But let’s translate that into something more than just a number. Modern India has more than 100,000 cases of Hansen’s disease, better known to the world as leprosy. Leprosy is a contagious disease that attacks the body’s tissues and nerves, leaving horrible scars and limb deformities. The striking thing about Hansen’s disease is that it is easily cured, and, if caught early, recovery is complete. How much does it cost to treat leprosy? One \$3 dose of antibiotic will cure a mild case; a \$20 regimen of three antibiotics will cure a more severe case. The World Health Organization even provides the drugs free, but India’s health care

infrastructure is not good enough to identify the afflicted and get them the medicine they need.³

So, more than 100,000 people in India are horribly disfigured by a disease that costs \$3 to cure. That is what it means to have a per capita GDP of \$2,900.

Having said all that, GDP is, like any other statistic, just one measure. Figure skating and golf notwithstanding, it is hard to collapse complex entities into a single number. The list of knocks against GDP as a measure of social progress is a long one. GDP does not count any economic activity that is not paid for, such as work done in the home. If you cook dinner, take care of the kids, and tidy up around the house, none of that counts toward the nation’s official output. However, if you order out food, drop your kids off at a child care center, and hire a cleaning lady, all of that does. Nor does GDP account for environmental degradation; if a company clear-cuts a virgin forest to make paper, the value of the paper shows up in the GDP figures without any corresponding debit for the forest that is now gone.

China has taken this last point to heart. Chinese GDP growth over the past decade has been the envy of the world, but it has come at the cost of significant environmental degradation. Of the twenty-five most polluted cities in the world, sixteen are in China (you’ve never heard of most of them). China’s State Environmental Protection Administration has begun to calculate “Green GDP” figures, which seek to evaluate the true quality of economic growth by subtracting the costs of environmental damage. Using this metric, China’s 10 percent GDP growth in 2004 was really closer to 7 percent when the \$64 billion in pollution costs are taken into account. Green GDP has an obvious logic. The *Wall Street Journal* explains, “While GDP looks at the market value of goods and services produced in a country each year, it ignores the fact that a nation might be fueling its expansion by polluting or burning through natural resources in an unsustainable way. In fact, the usual methods of calculating GDP make destroying the environment look good for the economy. If an industry pollutes

in the process of manufacturing products, and the government pays to clean up the mess, both activities add to GDP.⁴

There are no value judgments whatsoever attached to traditional GDP calculations. A dollar spent building a prison or cleaning up after a natural disaster boosts GDP, even though we would be better off if we did not need prisons and if there were no disasters to clean up after. Leisure counts for nothing. If you spend a glorious day walking in the park with your grandmother, you are not contributing to GDP and may actually be subtracting from it if you've taken the day off to do it. (True, if you take grandma bowling or to the movies, the money you spend will show up in the GDP figures.) GDP does not take into account the distribution of income; GDP per capita is a simple average that can mask enormous disparities between rich and poor. If a small minority of a country's population grow fabulously rich while most citizens are getting steadily poorer, per capita GDP growth could still look impressive.

The United Nations has created the Human Development Index (HDI) as a broader indicator of national economic health. The HDI uses GDP as one of its components but also adds measures of life expectancy, literacy, and educational attainment. The United States ranked thirteenth in the 2009 report; Norway was number one, followed by Australia and Iceland. HDI is a good tool for assessing progress in developing countries; it tells us less about overall well-being in rich countries where life expectancy, literacy, and educational attainment are already relatively high.

The most effective knock against GDP may simply be that it is an imperfect measure of how well off we really consider ourselves to be. Economics has an overly tautological view of happiness: The things we do must make us happy; otherwise we would not do them. Similarly, growing richer must make us better off because we can do and have more of the things that we enjoy. Yet survey results tell us something different. Richer may not be happier. Remember that robust growth of the 1990s? It didn't seem to do much good for our psyches. In fact, the period of rising real incomes from 1970 to 1999 coincided with a

decrease in those who described themselves as "very happy" from 36 percent to 29 percent.⁵ Economists are belatedly beginning to probe this phenomenon, albeit in their own perversely quantitative way. For example, David Blanchflower and Andrew Oswald, economists at Dartmouth College and the University of Warwick, respectively, found that a lasting marriage is worth \$100,000 a year, since married people report being as happy, on average, as divorced (and not remarried) individuals who have incomes that are \$100,000 higher. So, before you go to bed tonight, be sure to tell your spouse that you would not give him or her up for anything less than \$100,000 a year.

Some economists are studying happiness directly, by asking participants to keep daily journals in which they record what they are doing at various times and how it makes them feel. Not surprisingly, "intimate relations" is at the top of the list in terms of positive experiences; the morning commute is at the bottom, lower than cooking, housework, the evening commute, and everything else.⁶ The findings are not trivial, as they can illuminate ways in which individuals think they are making themselves happy but aren't really. (Yes, you should see the influence of the behavioral economists here.) For example, that long commute may not be worth what it buys (usually a bigger house and a higher salary). Not only is the commute unpleasant, but it often carries a high opportunity cost: less time spent socializing, exercising, or relaxing—all of which rate as highly pleasurable activities. Meanwhile, we quickly become inured to the benefits of the goods that we previously coveted (kind of like getting used to a hot bath), whereas the happiness generated by experiences (family vacations and their lingering memories) is more durable. *The Economist* summarizes the prescriptions of the research so far: "In general, the economic arbiters of taste recommend 'experiences' over commodities, pastimes over knick-knacks, doing over having."⁷

If GDP is a flawed measure of economic progress, why can't we come up with something better?

We can, argues Marc Miringhoff, a professor of social sciences at Fordham University, who believes that the nation should have a “social report card.”⁸ He proposed a social health index that would combine sixteen social indicators, such as child poverty, infant mortality, crime, access to health care, and affordable housing. Conservative author and commentator William Bennett agrees with half of that analysis. We do need a measure of progress that is broader than GDP, he argues. But ditch all that liberal claptrap. Mr. Bennett’s “index of leading cultural indicators” includes the kinds of things that he considers important: out-of-wedlock births, divorce rates, drug use, participation in church groups, and the level of trust in government.

French President Nicolas Sarkozy instructed the French national statistics agency in 2009 to develop an indicator of the nation’s economic health that incorporates broader measures of quality of life than GDP alone. Two prominent economists and former Nobel Prize winners, Joseph Stiglitz and Amartya Sen, chaired a panel convened by Sarkozy to examine a seeming paradox: Rising GDP seems to come with a perception that life is getting more stressful and difficult, not less. Sarkozy wants a measure that incorporates the joys of art and leisure and the sorrows of environmental destruction and stress.⁹ Measuring these elements of the human condition is a noble gesture—but a single number? The *Wall Street Journal* commented, “Chapeaus off to Messrs. Stiglitz and Sen if they can put a number on such spiritual matters—but don’t hold your breath.”

So you begin to see the problem. Any measure of economic progress depends on how you define progress. GDP just adds up the numbers. There is something to be said for that. All else equal, it is better for a nation to produce more goods and services than fewer. When GDP turns negative, the damage is real: jobs lost, businesses closed, productive capacity turned idle. But why should we ever have to deal with that anyway? Why should a modern economy switch from forward to reverse? If we can produce and consume \$14 trillion worth of stuff, and put most Americans to work doing it, why should we

toss a bunch of people out of work and produce 5 percent less the following year?

The best answer is that recessions are like wars: If we could prevent them, we would. Each one is just different enough from the last to make it hard to ward off. (Though presumably policymakers have prevented both wars and recessions on numerous occasions; it’s only when they fail that we notice.) In general, recessions stem from some shock to the economy. That is, something bad happens. It may be the collapse of a stock market or property bubble (the United States in 1929 and 2007, Japan in 1989); a steep rise in the price of oil (the United States in 1973); or even a deliberate attempt by the Federal Reserve to slow down an overheated economy (the United States in 1980 and 1990). In developing countries, the shock may come from a sudden fall in the price of a commodity on which the economy is heavily dependent. Obviously there may be a combination of causes. The American slowdown that began in 2001 had its roots in the “tech wreck”—the overinvestment in technology that ultimately ended with the bursting of the Internet bubble. That trouble was compounded by the terrorist attacks of September 11 and their aftermath.

No matter the cause, the most fascinating thing about recessions is how they spread. Let’s start with a simple one, and then work our way to the “Great Recession” of 2007. You probably didn’t notice, but around 2001 the price of coffee beans plunged from \$150 to \$50 per hundred pounds.¹⁰ Although that drop may have made your Starbucks latte habit modestly more affordable, Central America, a major coffee-producing region, was reeling. The *New York Times* reported:

The collapse of the [coffee] market has set off a chain reaction that is felt throughout the region. Towns have been left to scrape by as tax receipts drop, forcing them to scale back services and lay off workers. Farms have scaled back or closed, leaving thousands of the area’s most vulnerable people with no money to buy food or clothes or to pay their rent. Small growers, in debt to banks and coffee processors who lent

them money to care for the crops and workers, have been idled, and some of them are facing the loss of their land.

Whether you live in Central America or Santa Monica, someone else's economic distress can become your problem very quickly. The recession of 2007 (which erupted into a financial crisis in 2008) has been the scariest in a long time. The economic "shock" in this case originated with sharp drops in both the stock and housing markets, both of which left American households poorer. Christina Romer, chair of President Obama's Council of Economic Advisers, estimates that U.S. household wealth fell 17 percent between December 2007 and December 2008—five times the size of the decline in 1929 (when fewer families owned stocks or houses).¹¹ When consumers sustain a shock to their income, they spend less, which spreads the economic damage. This is an intriguing paradox: Our natural (and rational) reaction to precarious economic times is to become more cautious with our spending, which makes our collective situation worse. The loss of confidence caused by a shock to the economy may turn out to be worse than the shock itself. My thrift—a decision to curtail my advertising budget or to buy a car next year instead of this year—may cost you your job, which will in turn hurt my business! Indeed, if we all believe the economy is likely to get worse, then it will get worse. And if we all believe it will get better, then it will get better. Our behavior—to spend or not to spend—is conditioned on our expectations, and those expectations can quickly become self-fulfilling. Franklin Delano Roosevelt's admonition that we have "nothing to fear but fear itself" was both excellent leadership and good economics. Similarly, Rudy Giuliani's exhortation that New Yorkers should go out and do their holiday shopping in the weeks after the World Trade Center attack was not as wacky as it sounded. Spending can generate confidence that generates spending that causes a recovery.

Unfortunately the Great Recession that began in 2007 had other aspects to it that spread the economic damage in virulent and scary

ways. Many American households were "excessively leveraged," meaning that they had borrowed far more than they could manage. The housing boom had encouraged ever bigger houses with ever bigger mortgages. Meanwhile, the down payments—the amount of their own money buyers had to spend to get a loan—were getting smaller relative to what was being borrowed. Subprime mortgages (a financial innovation, one must admit) made it easier for people to borrow who were otherwise not creditworthy and for other people to borrow in particularly aggressive ways (e.g., with no down payment at all). This all works fine when housing prices are going up; someone who falls behind on their mortgage payments can always sell the house to repay the loan. When the housing bubble burst, however, the numbers became a disaster. Overleveraged American families found that they could not afford their mortgage payments, nor could they sell their homes. Millions of houses and condos were thrown into foreclosure by whatever bank or financial institution owned the mortgage. When these properties were dumped on the market, it drove prices down further and exacerbated all the real estate–induced problems.

But we haven't even arrived at the scary part yet. America's mortgage problem spread to the financial sector through two related channels. First, banks were plagued with lots of bad real estate loans, which made them less able and willing to make new loans. Anyone looking to buy a home had trouble doing so, even with good credit and a large down payment. (You guessed it: This compounded the real estate problems yet again.) Meanwhile, Wall Street investment banks and hedge funds had loaded up on real estate derivatives—fancy products like mortgage-backed securities whose value was somehow tied to the plunging real estate market. Like American homeowners, these institutions had borrowed heavily to make such investments, so they too faced creditors. Much of this debt was "insured" with the credit default swaps described in Chapter 7, wreaking havoc on firms with that exposure.

There was a stretch of time in the fall of 2008 when it looked like Wall Street—and therefore the global financial system—would

implode. The most serious moment came when the investment bank Lehman Brothers recognized that it could not meet its short-term debt obligations—meaning that without some infusion of outside capital, the firm would have to declare bankruptcy. The U.S. Treasury and the Federal Reserve were unable, or unwilling, to save Lehman. (Earlier in the year they had saved Bear Stearns, another troubled investment bank, by arranging a takeover by JPMorgan Chase.) When Lehman declared bankruptcy, leaving all of its creditors high and dry, the global financial system essentially seized up. A Treasury official described the cascade of panic to *The New Yorker*: “Lehman Brothers begat the Reserve collapse [a money-market fund], which begat the money-market run, so the money-market funds wouldn’t buy commercial paper [short-term loans to corporations like GE]. The commercial-paper market was on the brink of destruction. At this point, the banking system stops functioning.”¹²

Sensible people started talking about surviving by raising goats in the backyard. (Okay, that was me.) My college roommate, who has gone on to become the CEO of a major company, admitted later that he had hidden \$10,000 in a cowboy boot in his closet. (I was left wondering primarily why he owns cowboy boots.) We were not alone. James Stewart has described the Lehman collapse and all its attendant damage in a brilliant piece for *The New Yorker*. Here is one sample:

Geithner [then president of the Federal Reserve Bank of New York] said, “It’s hard to describe how bad it was and how bad it felt.” He got a call from a “titan of the financial system,” who said he was worried but he was doing fine. His voice was quavering. After hanging up, Geithner immediately called the man back. “Don’t call anyone else,” Geithner said. “If anyone hears your voice, you’ll scare the shit out of them.”

You don’t have to like investment bankers to care about all of this (and to appreciate why the federal government needed to stop the panic

on Wall Street). Once the financial system seizes up, no one gets credit. At that point, healthy companies become less healthy because they don’t have access to loans that allow them to do things that are necessary for business, such as buying inventory. The damage of the financial crisis spread to every corner of American society. In 2009, pre-order sales for Girl Scout cookies plunged 19 percent from the year before.¹³

Meanwhile, the number of adult films produced in Southern California fell from five or six thousand films a year to three or four thousand. *The Economist* reported on the macroeconomic effects of less porn: “Some firms have shut down, others are consolidating or scraping by. For the 1,200 active performers in the [San Fernando] Valley this means less action and more hardship . . . For every performer, there are several people in support, from sound-tech to catering and (yes) wardrobe, says Ms. Duke [a spokesperson for the adult film industry], so the overall effect on the Valley economy is large.”¹⁴

Recessions can spread quickly across international borders. If the U.S. economy weakens, then we buy fewer goods from abroad. Pretty soon Mexico, which sends more than 80 percent of its exports to the United States, is reeling. In business as in sports, your competitor’s misfortune is your gain. At the global level, the opposite is true. *If other powerful economies fall into recession, they stop buying our goods and services—and vice versa.* Think about it: If unemployment doubles in Japan or Germany, how exactly is that going to make you better off? During the financial crisis, the problems on Wall Street quickly spread to other countries. Americans—who are collectively the biggest consumers in the world—bought fewer imported goods, which harmed exporting economies around the globe. America’s GDP contracted at an annual rate of 5.4 percent in the fourth quarter of 2008. You thought we had it bad? Singapore’s economy fell in the same quarter at an annual rate of 16 percent, and Japan’s by 12 percent.¹⁵

How do things get better? There are often underlying issues that need to work themselves out. In the case of the “tech wreck,” we

massively overinvested in Internet businesses and related technology. Some firms went bust; other firms cut back their IT spending. Resources were reallocated, at which point there were more U-Hauls going out of Silicon Valley than in. Or, in the case of higher energy prices, we reorganize our economy to deal with a world in which oil is \$100 a barrel instead of \$10. In the run-up to the financial crisis, consumers and firms borrowed too much; speculators built houses that never should have been built; Wall Street grew fat dealing in products with limited economic value. These things are now (painfully) fixing themselves. Recessions may actually be good for long-term growth because they purge the economy of less productive ventures, just as a harsh winter may be good for the long-term health of a species (if not necessarily for those animals that freeze to death).

The business cycle takes a human toll, as the layoffs splashed across the headlines attest. Policymakers are increasingly expected to smooth this business cycle; economists are supposed to tell them how to do it. Government has two tools at its disposal: fiscal policy and monetary policy. The objective of each is the same: to encourage consumers and businesses to begin spending and investing again so that the economy's capacity no longer sits idle.

Fiscal policy uses the government's capacity to tax and spend as a lever for prying the economy from reverse into forward. If nervous consumers won't spend, then the government will do it for them—and that can create a virtuous circle. While consumers are sitting at home with their wallets tucked firmly under the mattress, the government can start to build highways and bridges. Construction workers go back to work; their firms place orders for materials. Cement plants call idled workers back. As the world starts to look like a better place, we feel comfortable making major purchases again. The cycle we described earlier begins to work in reverse. This is the logic of the American Recovery and Reinvestment Act of 2009—the stimulus bill that was the first major piece of legislation under the Obama administration. The Act authorized more than \$500 billion in federal spending on

things ranging from expanded unemployment benefits to resurfacing the main highway near my house. (There is a big sign on the side of the road telling me that's where the money came from.)

The government can also stimulate the economy by cutting taxes. The American Recovery and Reinvestment Act did that, too. The final bill had nearly \$300 billion in assorted tax cuts and credits. The economic logic is that consumers, finding more money in their paychecks at the end of the month, will decide to spend some of it. Again, this spending can help to break the back of the recession. Purchases generated by the tax cut put workers back on the job, which inspires more spending and confidence, and so on.

The notion that the government can use fiscal policy—spending, tax cuts, or both—to “fine-tune” the economy was the central insight of John Maynard Keynes. There is nothing wrong with the idea. Most economists would concede that, in theory, government has the tools to smooth the business cycle. The problem is that fiscal policy is not made in theory; it's made in Congress. For fiscal policy to be a successful antidote to recession, three things must happen: (1) Congress and the president must agree to a plan that contains an appropriate remedy; (2) they must pass their plan in a timely manner; and (3) the prescribed remedy must kick in fast. The likelihood of nailing all three of these requirements is slim. *Remarkably, in most postwar recessions, Congress did not pass legislation in response to the downturn until after it had ended.* In one particularly egregious example, Congress was still passing legislation in May 1977 to deal with the recession that ended in March 1975.¹⁶ At the end of the relatively mild 2001–2002 recession, the *New York Times* ran the following headline: “Fed Chief Sees Decline Over; House Passes Recovery Bill.” I'm not making this stuff up.

What about the Obama stimulus? The American Recovery and Reinvestment Act was seemingly timely, but most of the money was not spent immediately (though there still can be a psychological benefit, and therefore an economic benefit, to simply announcing that lots of spending is coming). Critics of this huge economic interven-