CHAPTER 1

Indulgence in an Age of Constraint

Do you ever drive an air-conditioned sedan to your suburban home, stare at your flat screen and GE appliances and think, "Oh my God, I'm rich!"? Many Americans don't. A lot has to do with the bills that come at the end of each month. It's gotten hard to tell which things you own and which ones own you. In the last 30 years both the U.S. government and its citizens plunged into this raging sea of contradictions. Consider the following:

- If the United States is the wealthiest country in the world, why are we so deep in debt? Bernie Madoff could produce results like this.
- How can the stock market be soaring when unemployment is over 9 percent and few people trust stocks?
- We tout Twitter and Facebook as great inventions, but all the gadgets that make them possible are made overseas, occasionally by children.
- If the U.S. is so creative, why is our education system consistently ranked somewhere between Guam and Kazakhstan?
- Can a country this obese ever be competitive? It didn't work in gym class, why would it now?

From the public debate and rhetoric, you'd think we solved all the real problems. Politicians spend months squabbling over $90 million for National Public Radio when our deficits are in the trillions. They are either cynical opportunists or *thisclose* to wearing mother's wig in a desolate motel. We didn't suddenly wake up this way. Years of misguided policies, corporate greed, and individual complacency definitely helped.

Lots of books wallow in the seeds of America's decline. This is not one of them. I am more concerned with its resurrection. To do it, innovators will need some clues from our past. What follows is the story of our economic history as told by someone with no political affiliation and one too many pop-culture references.

The Way We Were

Many people blame capitalism, borrowing, and loose regulation for the economic collapse of the late 2000s. The truth is it's all of the above and then some.

Get Up, Stand Up (1900s)

The year 1900 marked a huge economic milestone. It's when the dollar became officially linked to gold. You might say a century is a long way to go to make a point, but like Charles Dickens, I get paid by the word. Actually, a country's reputation can take decades to establish and sometimes minutes to wreck. When the dollar's value was backed by gold, a lasting, sensuous love affair blossomed. Despite a few trysts with other currencies, everyone from French trendsetters to gruff Chilean miners accepted dollars.

A good example of how economic conditions connect to innovation can be found in a very peculiar place, the Great Depression. Nine out of 10 doomsayers agree—the 1930s were a worst-case scenario. At a time when stockbrokers jumped out of office buildings and horses pulled gasless cars, as you can see in Table 1.1, some enduring inventions thrived. Economic conditions played an important role in those successes, as they did during the dot-com boom of the late 1990s.

Throughout the industrial revolution, the United States was a sensible borrower. It used long-term debt to finance bridges, roads, and shiny new tanks to fight the original Axis of Evil. These investments almost always paid off in more commerce and taxes. While other Western nations removed shrapnel from landmarks, the U.S. economy bloomed. From the 1940s through the early 1970s,

Table 1.1 Depression-Era Innovations and the Role of Economics

Invention	Economic Theme	The Role of Economics
Supermarket	Scale, One-Stop Shop, Discounts	In a time when money was tight and gas was expensive, having a store with huge bargaining power that can provide one-stop shopping, eliminate multiple trips, and offer superior discounts is an economist's dream. It's also a template for the future.
Laundromat	Capital Pooling	Pooling of expensive capital that is used infrequently into a pay-per-use model has become common. Rental cars, arcades, and gyms are all modern incarnations of this model.
World's Fair	Tourism, Import Capital, Repurposing, Hope, Community	To create the Chicago World's Fair, unused land and garbage dumps were repurposed into a worldwide tourist attraction. Out of thin air, a magnet for tourism and foreign capital was created. The fair also gave people hope and a sense of community between two wars.
Monopoly	Escapism, Home-Based Entertainment	Monopoly was the epitome of cheap, affordable, home-based entertainment. When money to go out and travel was tight, extra leisure time could be spent ruling the world. Well, a fantasy world. This was a feel-good substitute for real success, which eluded many.
Miracle Whip	Substitution, Affordable Indulgence	Miracle Whip was more wallet-friendly and flavorful than the mayo it replaced. It added much-needed flavor to the cheaper, blander foods people were buying at the time. The fact that it's endured this long is a miracle of sorts. The fact that I still have a jar from 1999 in my fridge, even more so.
Sliced Bread	Efficiency, Convenience	Buying thin slices of sandwich bread was far more convenient and economical than making thick, irregular slices on your own. It was also a great portion control method that allowed people to budget by the slice.
Baseball All-Star Game, Superman, Bugs Bunny, Wizard of Oz, Marx Brothers	Hope, Escapism, Heroes, Charity	Economics is as much about psychology (consumer confidence) as it is about numbers (GDP). Hope has a powerful effect during times of hardship. From baseball all-stars to invincible fantasies like Superman, heroes are conduits for hope. Superman, Bugs Bunny, and the Wizard of Oz offered affordable escapism, like movies, video games, and the Internet do today. Entertainment has become one of the most resilient parts of the economy.

U.S. growth was driven by urbanization, education, and raging babymaking. (You don't get a baby boom without breaking a few mattress springs from pent-up post-war hormones.) This created a thriving middle class that produced and consumed in relative balance. President Lyndon B. Johnson helped create safety nets like Medicare and Medicaid. These were made possible by steady growth and top-tier tax rates of 70 percent or more. This warm, loving government was also able to smooth out slow periods through spending on public works or an occasional war. Economically, it was Gum Drop Mountains and Candy Cane Forests as far as the eye could see. . . .

Cracks in the candy cane started to show in the '70s. By then, the U.S. made less, consumed more, and craved foreign oil like a child craves, well, candy. Despite two crises, we deferred a trip to Gasaholics Anonymous and kept consuming. Recession, inflation, high unemployment, reckless bank deregulation, and disco all followed suit. Most relevant to us now, 1972 marked the end of the gold standard. Like when Superman gave up his powers to be with Lois Lane, the U.S. dollar became an ordinary piece of paper backed only by a big reputation.

Glory Days (1980–early 1990s)

In retrospect, the election of Ronald Reagan, a former actor, foreshadowed America's permanent shift to services . . . and to some really bad television. Like *Knight Rider* or *Baywatch*, Reaganomics featured a charming lead character working with a thin premise. On the plus side, the economy boomed. Marginal tax rates dropped by 25 percent, household incomes rose by $4,000, and inflation dropped. At the same time, our debt tripled. After all, Communists weren't going to shoot themselves from space! That cost money. The growing debt problem was masked by high growth, low unemployment, and the country's last manufacturing boom. Savings rates plummeted for people and government alike.

The centerpiece of Reaganomics was supply-side economics. That meant giving tax benefits to high earners and businesses, whose prosperity would then "trickle down" to everyone else. It's not exactly how the world works. When poor people make more money, they spend most of it because they often operate at a deficit. The wealthy already save. When they make more, they save even more. Some of that goes into savings accounts or stocks, which can provide business, home, or car loans. More often, that money is placed in conservative investments like government debt. Ironically, lower taxes on the wealthy meant that the government would need to borrow more. And, the relationship between low taxes on the wealthy and job growth was like David Hasselhoff's relationship to his talking car—mostly fictional.

Ultimately, it's hard to tell if the 1980s boom was Reaganomics in action or just a natural economic recovery. Regardless, George Bush got stuck holding the bag. He took over a Hummer government on Ford Fiesta revenues. When recession hit, he had to raise taxes to cover fat budget gaps.

We Didn't Start the Fire (Mid 1990s–2000s)

Under Bill Clinton, the economy (and select interns) thrived. In the dot-com era, highballs, lavish parties, and ping-pong tables defined business, instead of boring old revenues, profits, and cash flows. Behind the champagne and dot-*com*araderie, the Clinton administration planted three magic beans that would later sprout into the Great Recession:

Bean #1: The 1999 revision to the Community Reinvestment Act. This forced Fannie Mae and Freddie Mac, two questionable public entities involved in buying private mortgages, to lower lending standards and give home loans to poor people. They called this "subprime" lending. That's like calling someone with an IQ of 70 a "subvaledictorian." Ill-informed borrowers flocked to eager financial institutions for unaffordable, adjustable-rate mortgages that carried a hidden risk of rate increases.

Bean #2: Clinton's push for free trade. On the surface, the North American Free Trade Agreement or NAFTA and over 200 free-trade deals made sense. Unfortunately, a country with high wages, and a big population had a lot to lose in this scenario. What would follow is a 15-year bleed of manufacturing jobs with little to take their place.

Bean #3: A ruinous deregulation of financial services led by Robert Rubin, Clinton's treasury secretary, set the stage for Wall Street cowboys to ride the United States like a bull, then skewer and grill it. By allowing commercial and investment banks to not only kiss but go all the way in Wall Street's

> bordello, a flurry of financially transmitted diseases (FTDs) would be unleashed.

Because of the boom, George W. Bush inherited a one-year budget surplus in 2000, the country's first since 1969. That didn't last long. As the economy was about to enter a post-dot-com and post-9/11 slide, President Bush and Federal Reserve Chairman Alan Greenspan took a series of steps to fight off the coming recession . . . and guarantee a much bigger one down the road.

The first of these steps was keeping rates artificially low. This cheap money motivated people to stop saving, pump money into stocks, and borrow rabidly. A massive real estate frenzy was born. At its peak, even New York City's homeless could sell their cardboard boxes for $350,000. At the same time, President Bush cut taxes for the wealthy and took on big expenses like two wars and drug benefits for seniors. The deficit yawned by $4 trillion. As if that wasn't enough, the administration passed the mockingly named "American Jobs Creation Act of 2004." It gave companies tax breaks to move jobs overseas. GE moved its aviation leasing operations to Ireland to qualify, saving hundreds of millions of dollars annually.

It wasn't just the government that was playing games with money. Under-regulated financial firms opened a mortgage casino and gamblers came in droves. For a decade, Americans saved less than 1 percent, compared to 30 percent for Chinese. Borrowers chased home prices up the price pole. Money was so abundant some bought investment homes, summer cottages, and doghouses with Moen faucets. Others piled on second mortgages to buy things to fill these new homes—all assuming house prices could keep going up 10 percent a year. Suddenly, something you bought *because you were rich* became something you bought *to become rich.* Financial companies were more than happy to oblige. After all, investors were eating up these packaged loans. Expecting these chopped up investments—collateralized debt obligations (CDOs)—would go bad, companies like Goldman Sachs wanted a way to bet against them. Insurers like AIG and others gladly took that bet. So the credit default swap (CDS) was spawned. Piles of them were sold to Goldman and others. Turns out, they badly misjudged the risk. The underlying loans were toxic, but complicit credit agencies kept giving them stellar ratings. Finally, these risky inventions of the computer era exploded like marshmallows in a microwave. Goldman Sachs vehemently denies using CDOs to bet against the very securities they were selling to clients, but the evidence has been unkind.

Running on Empty (2007+)

In 2007, malignant financial companies, not unlike Bernie Madoff, were caught taking bets they couldn't cover. Some crumbled. Others were deemed "too big to fail." These bloated zombies were rescued by TARP and other pricey government acronyms. Not that TARP (Troubled Asset Relief Program) was unsuccessful. It likely prevented more panic and breathed life into the lungs of TV pundits. Its biggest failure was not punishing gross offenders and deterring future naughtiness, or at least, removing the taxpayer petting zoo from the Goldman Sachs cafeteria.

As people realized their houses weren't worth what they owed, many stopped paying. By then, millions of people who had counted on home values for retirement, learned their nest egg contained a rotten little chicken. As lending dried up, the retail orgy that gripped the U.S. climaxed. Our one-trick, retail economy stood like the naked emperor, for all to gawk at. Hundreds of stores vanished.

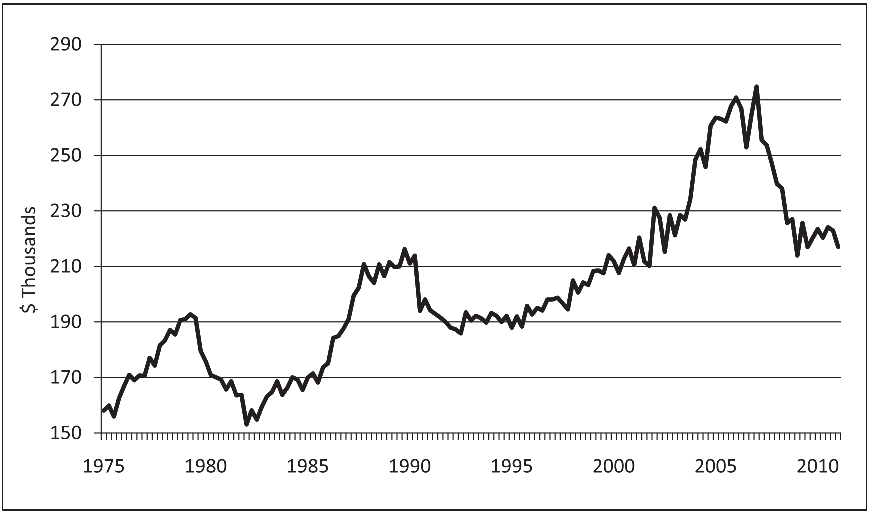

Figure 1.1 Median Single-Family Home Prices, 2010 (inflation adjusted)

Source: Bureau of Labor Statistics (BLS).

Industries like construction, auto, and realty instantly shriveled. Millions were left jobless, with few job prospects, surrounded by the cheap, plasticky remnants of a fictitious affluence.

Unlike during past recessions in the United States and Japan, neither people nor government saved anything for this rainy day. Luckily, the United States still had good credit, a charming disposition, and the mystical beard of Ben Bernanke, chairman of the Federal Reserve. The government borrowed more and blanketed the country with low rates, stimulus checks, and billions of freshly printed dollars. Unfortunately, stimulus is just a sugar high when most things are made overseas and money spent doesn't recirculate. Harvard economist Robert Barro estimates the real return on every $1 of government stimulus to be $0.80. Since we make so little here, most of the $0.80 value went abroad. Basically, we stimulated China. How do you say thank-you in Mandarin?

As the recession lingered, few foreign investors wanted long-term U.S. bonds at ridiculously low rates. Instead, the Fed, part of the U.S. government, bought bonds from the Treasury, part of the U.S. government, with cash it made from fairy dust. The bonds we did sell to investors were of the 3- to 10-year variety, not 30 years, like in the good old days. When you're borrowing to eat and not grow, a 30-year bet on your future is a lot to ask. Instead, China, Saudi Arabia, and others looked elsewhere for investments. China started buying up resources in Africa, reinvesting in infrastructure, and shutting down its "Made in the USA" label factories.

Right Now

Some check football scores to see how their fantasy teams performed. I check the World Economic Forum for country rankings. Fun at parties? You bet I am. In the 2010/11 report, the U.S. fell to fourth place in global competitiveness, but 87th place in the macroeconomic environment. Sure, Tajikistan had a good year, but what's our excuse? When you drill into the ratings, which are definitely more prestigious than *People*'s Sexiest Man Alive list, you'll find three things dragging everything down:

1. Balanced budget
2. Government debt
3. National savings rate

In those categories, we ranked near the bottom among 139 countries. (I don't recall who was dead last, but it would be safe to bet that its ruler has plenty of giant, heroic posters of himself.) Our fiscal problems are more serious than our cheerful number 4 ranking would indicate. Here's why.

Mesmerized by Debt

The debt spiral in Figure 1.2 applies to people and countries alike.

Indebtedness explained in 15 simple steps:

1. It all starts innocently enough with wanting things. Sometimes, when you want things that are really expensive, like a mansion, a highway, or a missile defense system, you borrow.

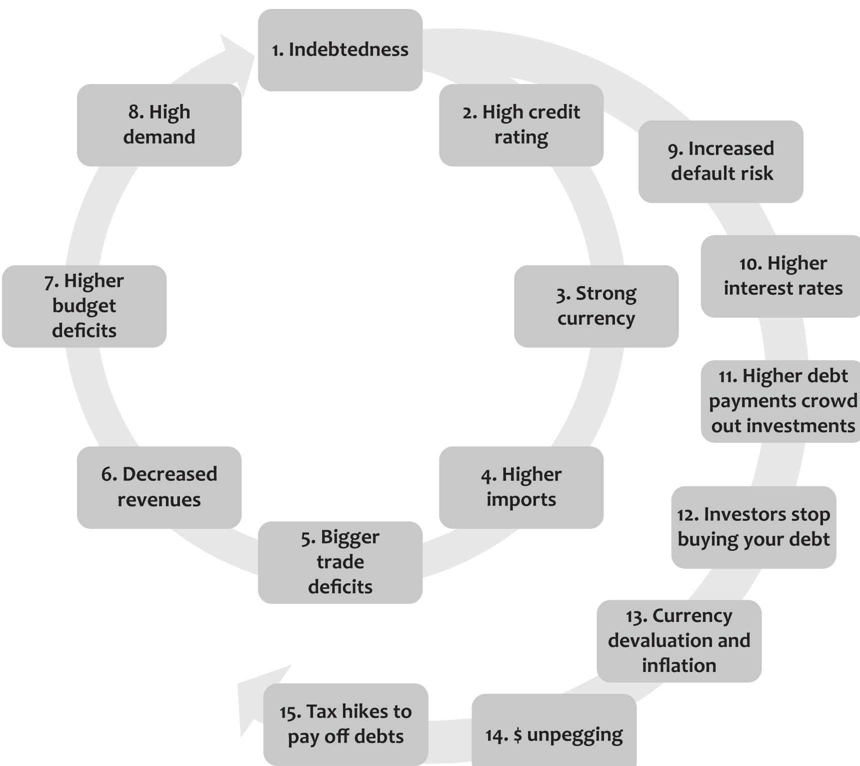

Figure 1.2 The Economic Spiral

2. If you make your payments on time, lenders love you. They express their love by sending love letters, also called "offers."
3. Word of your good credit travels far and wide. Others start offering you credit. After all, they know you'll pay the bills with a healthy interest. If you're a country, others feel comfortable buying your bonds and using your money.
4. Armed with lots of cash and a long shopping list, you borrow more. With the money, you can afford lots of expensive hobbies, like space travel, health care, and war. In fact, you can borrow so much, you barely have to work. You can pay other countries with lower wages to make you things. Or, you can bring in "guest workers" to do anything that requires movement.
5. Every year, you borrow just a little more than you earn. That's okay, you're still making payments.
6. If you're a country, your tax revenues start going down, since your citizens are now borrowing instead of producing. If you're an individual, there are fewer jobs because good credit has made others not work, either.
7. At some point, with enough people not working, the things you needed to buy, like bridge repair and health care are underfunded. Now you need to borrow more—this time, for necessities.
8. The cycle continues for a while, until the lenders start wondering if you'll ever work again. Or if your new job can produce enough income to pay your debts.
9. Lenders start thinking you're a higher default risk as you pace desperately through your hollow mansion.
10. They raise your rates. If you were just barely paying the interest before, just wait to see how hard it is to pay it with higher rates.
11. As more of your money goes toward paying debts, you can't afford the things to which you've grown accustomed—from wars to roads to that extra side of guacamole at Chipotle.
12. If things get bad enough, investors stop lending you money. In the case of the U.S., that's usually private companies and foreign governments.
13. At some point, you can either renegotiate your debts or inflate your currency by "printing" more of it. People can't make money, but the U.S. can. Either way, the value of your money

drops. In the inflation scenario, you still pay off your debt in nominal terms (the numbers are the same, but the value of each dollar is diminished). If you renegotiate, you pay a percentage on the dollar. Either way, your credit rating takes a hit, and you have to start rebuilding your credit score.

14. When your currency is worth less (or worthless), others stop using it and find alternatives, like other countries' money, precious metals, or wampum.
15. Once you've renegotiated, you really have to pay every cent. There are no second chances. The best way to do it is increase revenues. For a country that's higher taxes. For individuals, it's saving or a better paying job.

Bills, Bills, Bills

If you look at annual expenses compared to federal tax revenues in Figure 1.3, you'll notice one thing—things don't look good. Annual interest payments alone, threaten to eat us alive. On top of that, we have massive, growing obligations for Medicare, Medicaid, and Social Security. By 2040, our creditors will have jumped ship and we'll probably need to know Mandarin to vacation in Hawaii.

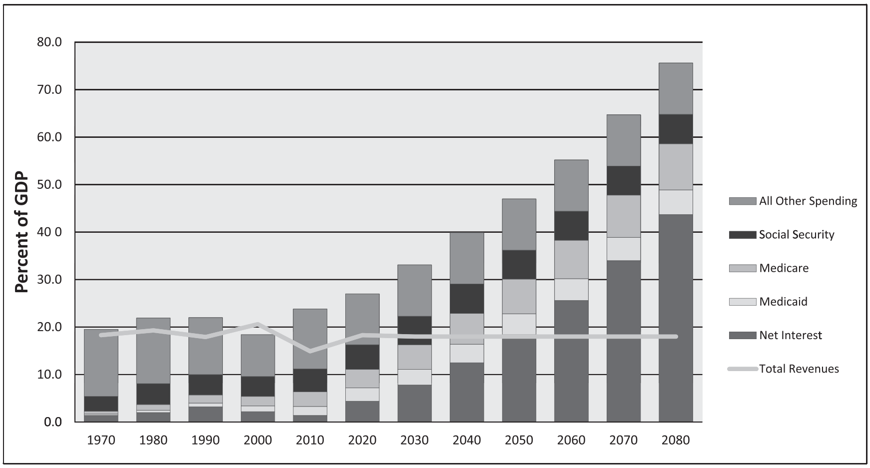

Figure 1.3 U.S. Debt Trajectory, 1970–2080

Source: Congressional Budget Office (CBO).

To get a sense exactly how massive the numbers in Figures 1.3 and 1.4 are, let's convert these exact proportions into a personal home loan for Sally Smith. Sally is 35 years old and earns $50,000 a year as a health care administrator. She wants to buy the house across the street from George Clooney. She is a big fan and thinks she found a bargain. To buy it, she needs to borrow just under $316,000. She plans to save an aggressive 25 percent of her income to pay off the loan. Sally's income is growing at 3 percent a year and her loan has a 6 percent rate. After 30 years, Sally will be earning $121,363 but will still owe more than $1.2 million. The loan was more than she could handle. By then, George Clooney is far too old and still indifferent to Sally's flirtations. Yet her debt remains. The only way Sally could have paid off the loan in 30 years was to save 40 percent of her income, not 25 percent.

The United States doesn't need to pay off its entire balance, but it needs to get to a point where that principal is going down, not up. There are three basic ways this can happen:

1. **Increase revenues** through higher taxes.
2. **Lower expenses** by cutting entitlements, military, and other major expenditures.
3. **Grow**. For example, if our friend Sally Smith found a more lucrative career in software development, she could double her income. In that case, the 25 percent she committed to saving would be more than enough to pay for her loan, if not attract the elusive Mr. Clooney, that silver-haired fox.

It's not an all or nothing situation. The final answer will need to be a mix of all three. As for the third, creating growth is by far the hardest. And, the role of government hasn't always been clear. In this incarnation of *Econovation*, I won't talk about what government can do to help Sally earn more. Instead, I'll focus on what Sally can do to help herself. If 30 million Sallys can't figure out how to improve their incomes, start businesses, and employ others, risks for the U.S. include:

1. **Crowding out.** This is the biggest risk if the United States doesn't change its trajectory. Remember, Sally planned to save 25 percent of her income to pay her debt. Imagine if her medical expenses were also growing at 20 percent a year.

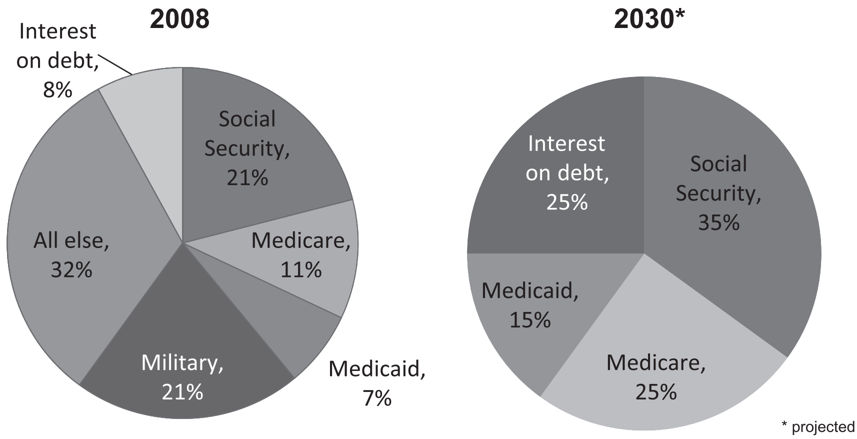

Figure 1.4 U.S. Expenses 2008–2030

Source: Congressional Budget Office (CBO).

Eventually, she'd only have debt and health expenses. That is what could happen to the United States by 2030. All we'll be able to afford are entitlements. See Figure 1.4.

2. **Interest rate hikes.** As the United States takes on more debt without increasing revenues, investors will start to doubt if U.S. debt is worth the risk. That will raise interest rates and reduce funds available for other programs. Or it could speed up inflation.
3. **Run on the banks.** Because so much of the U.S. debt is now short term, the government is rolling over (like expiring CDs) trillions each year into new bonds. Imagine some or many of these borrowers demanding their principal back, treating our bonds like shares of pets.com. They could flood the market with cheap U.S. bonds, sending the dollar into the dog house.
4. **Devaluation.** If the dollar sinks compared to other currencies or against hard assets like gold, oil, or ketchup, everything can get expensive—fast. This happened in Argentina during its financial crisis from 1999 to 2002. The government cashed out peoples' stocks, bonds, and foreign currencies to pay their debts. The Argentinean peso, which was worth $1.00, was cut down to a quarter of its value. Suddenly everyone was 75 percent poorer and 450 percent angrier. So you think that can't happen here? It already did. During the Great Depression,

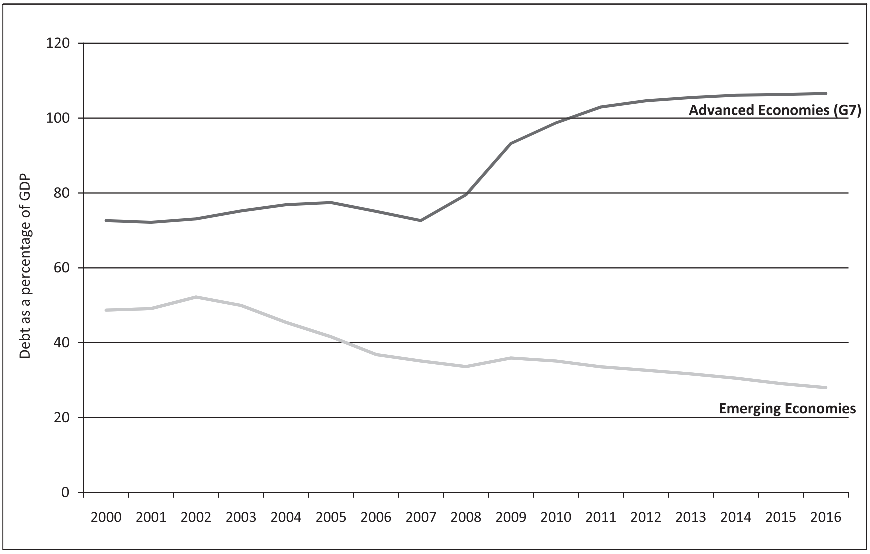

Figure 1.5 General Government Gross Debt Ratios, 2000 to 2016

Source: International Monetary Fund (IMF) World Economic Report, April 2011.

Table 1.2 The Way We Were (Summary)

1900s	1980–Early 1990s	Mid 1990s–2000s	2007+
Get Up, Stand Up	Glory Days	We Didn't Start the Fire	Running on Empty
1. Hello and good-bye gold standard 2. Industrialization and innovation 3. Borrow to build 4. Shift from manufacturing to services 5. Gas addiction	6. Reaganomics 7. Growing trade gap 8. Appreciating $ 9. Recession and first Iraq war/ oil crisis 10. Cheap is good	11. Deregulation 12. Low lending standards, liars and sharks 13. Tax cuts 14. Artificially low rates 15. "War on terror" 16. Increasing debt and budget deficits 17. Fake assets/CDS/ CDO 18. NAFTA kicks in: Jobs are for foreigners 19. Why save?	20. Bailouts 21. No penalties 22. For the love of debt 23. Printing money 24. Unemployment

President Roosevelt made owning anything but a tiny thimbleful of gold illegal. People were forced to convert to dollars or face a $10,000 fine.

5. **Competitors win.** High-growth emerging markets are filling their piggy banks (see Figure 1.5). They don't borrow nearly as much and will have cash, good credit, and income growth that allows them to invest in infrastructure and education—in ways indebted Western nations can't.

So What?

After reading this chapter, you're probably thinking I'm never getting that job at Hallmark. Maybe so. Regardless, coming to terms with your past helps you move on. If that past is a sordid one, it also keeps you vigilant. It's that hyperawareness that will help businesses find opportunity. As we embark on that search, feel free to tear out Table 1.2 as a wallet-size reminder of where we've been. In Chapter 2, we'll go deeper into the major structural and demographic challenges U.S. innovators will face.