
CHAPTER 1

Balance Sheet Recession Theory—Basic Concepts

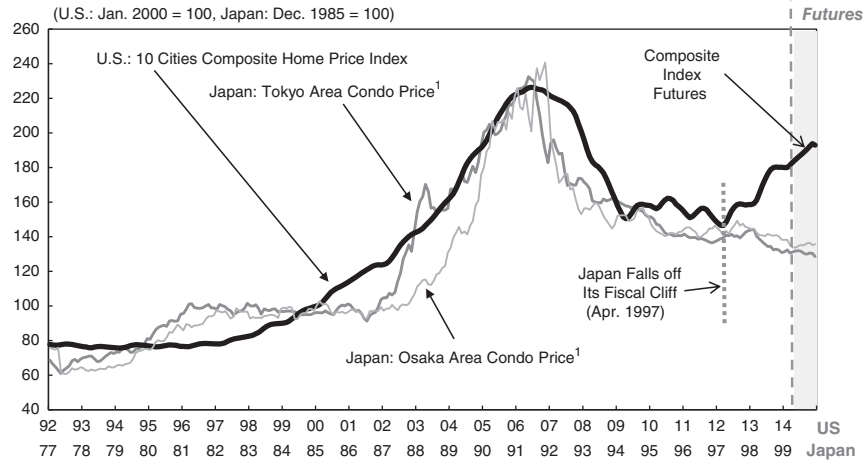
The greatest similarity between the Western economies today and the Japanese economy of 20 years ago is that both experienced the collapse of a massive, debt-financed bubble. Balance sheet recessions occur only when a nationwide asset bubble financed by debt bursts. Since nationwide debt-financed bubbles occur only rarely, balance sheet recessions are few and far between.

Figure 1.1 compares conditions in the U.S. housing market with those in Japan 15 years earlier. As the graph shows, the two markets trod identical paths in terms of the magnitude of the increase in prices, the duration of that increase, the magnitude of the subsequent decline in prices, and the duration of that decline. In other words, the United States can now expect to face the same set of conditions that Japan once did. The situation in Europe is similar (Figure 1.2).

Europe's housing bubbles and the subsequent collapse were even larger in scale. In Ireland, for instance, house prices rebased to 100 in 1995 rose to 514 by 2007 before falling back to 273 today. Similar price spikes occurred in Greece, Spain, and other Eurozone countries. Germany was the sole exception. Although the Germans operated under the same monetary policy and low interest rates as other members of the Eurozone, they did not experience an asset price bubble—in fact, house prices fell significantly, as the bottom line in Figure 1.2 demonstrates. When prices are rebased to 100 in 1995, German house prices had slipped to 90 in 2006. This lack of synchronicity between Germany and other Eurozone economies was a major contributor to the recent euro crisis, something that will be discussed in detail in Chapter 5.

Central banks responded to these burst bubbles and the economic weakness that followed by lowering interest rates dramatically. In the United States, the Fed cut rates at the fastest pace in its history, taking short-term

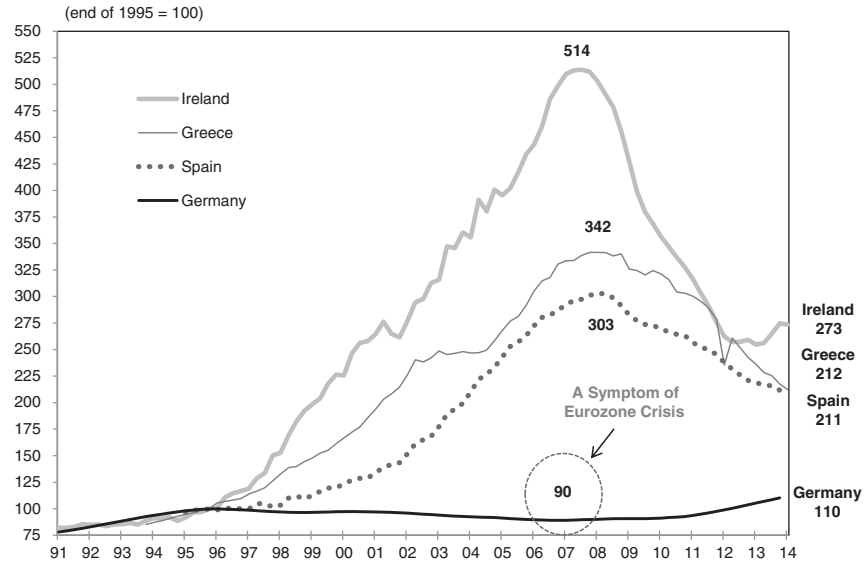
FIGURE 1.1 The U.S. Housing Bubble Comparable to the Japanese Housing Bubble 15 Years Earlier



Note: Per m², five-month moving average

Sources: Bloomberg; Real Estate Economic Institute, Japan; S&P, S&P/Case-Shiller® Home Price Indices, as of June 6, 2014.

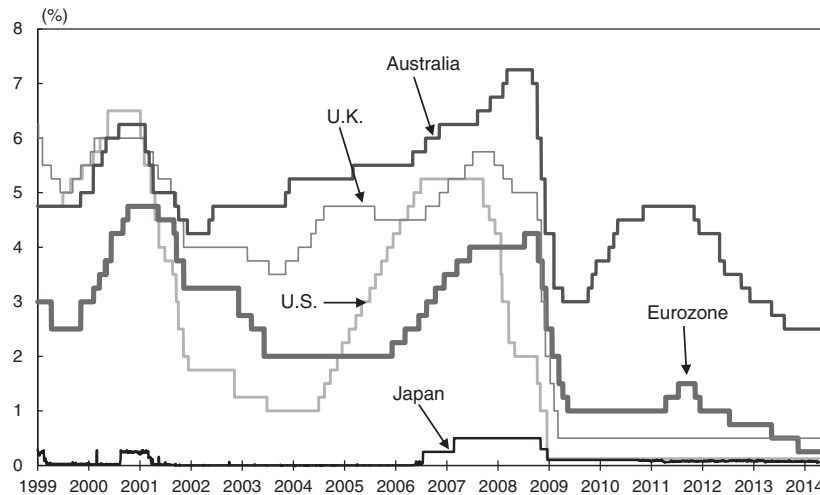
FIGURE 1.2 Europe's Experiences with House Price Bubbles



Notes: Ireland's figures before 2005 are existing house prices only. Greece's figures are flats' prices in Athens and Thessaloniki.

Source: Nomura Research Institute (NRI), calculated from Bank for International Settlements (BIS) data.

FIGURE 1.3 Drastic Interest Rate Cuts Had Little Effect on Economies



Sources: Bank of Japan (BOJ), Federal Reserve Board (FRB), European Central Bank (ECB), Bank of England (BOE), and Reserve Bank of Australia (RBA) (as of June 4, 2014).

rates down to zero by late 2008. The Bank of England (BOE), the European Central Bank (ECB), and the Reserve Bank of Australia also slashed rates (Figure 1.3).

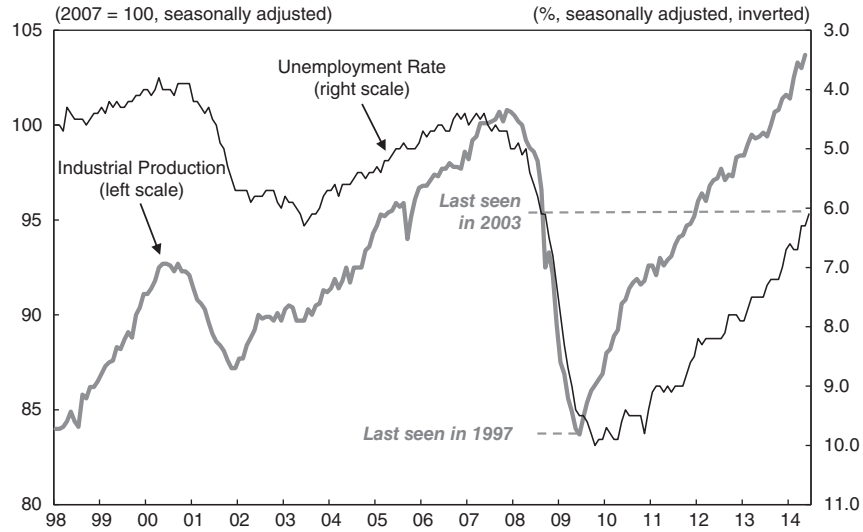
However, the reaction of these economies to the rate cuts has been muted at best—and this despite the fact that the United States, United Kingdom, and European interest rates have been at all-time lows for more than five years.

Figure 1.4 shows U.S. industrial output and the unemployment rate. In spite of zero interest rates and the Fed's massive quantitative easing (QE) program, industrial production has only recently recovered to the levels of the 2007 peak. The unemployment rate, meanwhile, remains at an elevated level, reflecting stubbornly weak labor market conditions.

The U.S. labor market has traditionally held a reputation for flexibility. The ease with which companies could shed employees during economic downturns was responsible for the economy's relatively high sensitivity to interest rates—a measure of the speed with which it reacts to changes in interest rates—since businesses could respond swiftly to changes in rates and other external factors. An unemployment rate of over 6 percent after five years of zero interest rates is unprecedented.

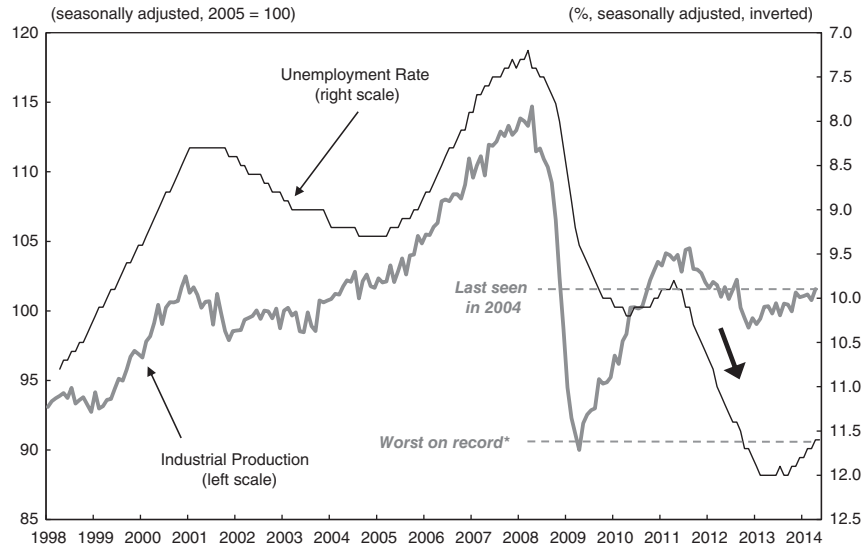
Similar conditions can be observed in the Eurozone. Industrial output there has only just recovered to the levels of 2004, while the unemployment rate remains in double-digit territory at 11.6 percent (Figure 1.5). Although

FIGURE 1.4 The United States Regains Bubble-Peak Industrial Production after a Six-Year Period



Sources: U.S. Department of Labor; FRB.

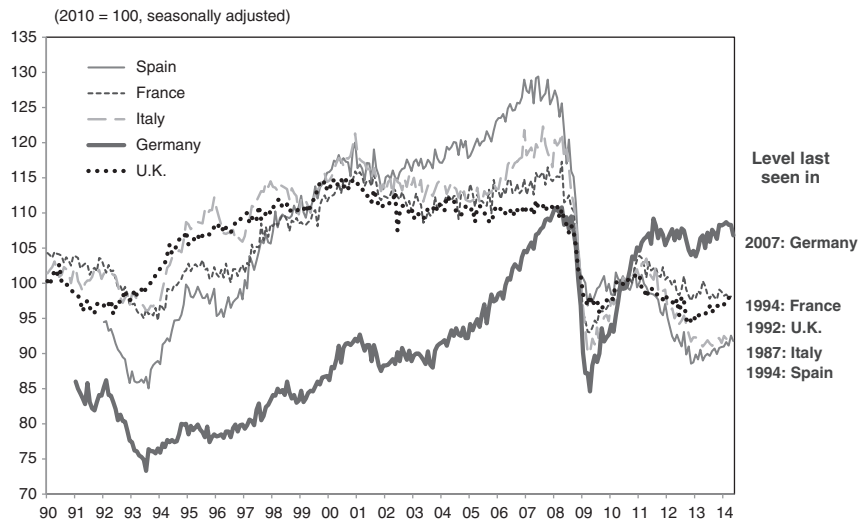
FIGURE 1.5 Bursting of the Housing Bubble Weakens Eurozone Economies



*No data before 1998.

Source: Eurostat.

FIGURE 1.6 Industrial Production in Europe



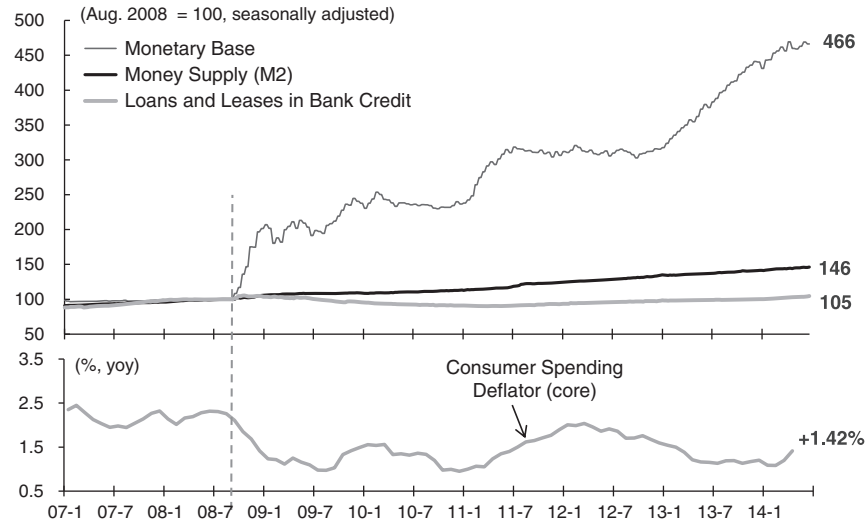
Sources: Eurostat; Office for National Statistics U.K. (ONS).

the ECB has taken interest rates down to an all-time low of 0.15 percent, Europe’s unemployment rate is at a post-1998 high. And in certain countries conditions are even worse. As Figure 1.6 shows, industrial production in France and Spain remains stuck at the levels of 1994, and in Italy output is no higher than it was in 1987. Spain has an unemployment rate of 25.1 percent, similar to the levels seen in the United States during the Great Depression. And with unemployment running at 10.1 percent in France and 12.6 percent in Italy, a recovery is still far off. Germany, which is responsible for about one third of Eurozone gross domestic product (GDP), is the exception, with industrial output having recovered to the levels of 2007 and approaching an all-time high. The unemployment rate there is also running at 5.1 percent, the lowest level since comparable statistics began in 1991.

GDP and Inflation Fueled by Growth in Money Supply, Not Monetary Base

Industrial output and employment are not the only key indicators that have yet to recover. The money supply and private credit in these countries have hardly grown at all in spite of sharply lower interest rates and quantitative easing (QE). Figures 1.7 to 1.10 show three key monetary indicators: the

FIGURE 1.7 Drastic Liquidity Injections Resulting in Minimal Increases in Money Supply and Credit: United States



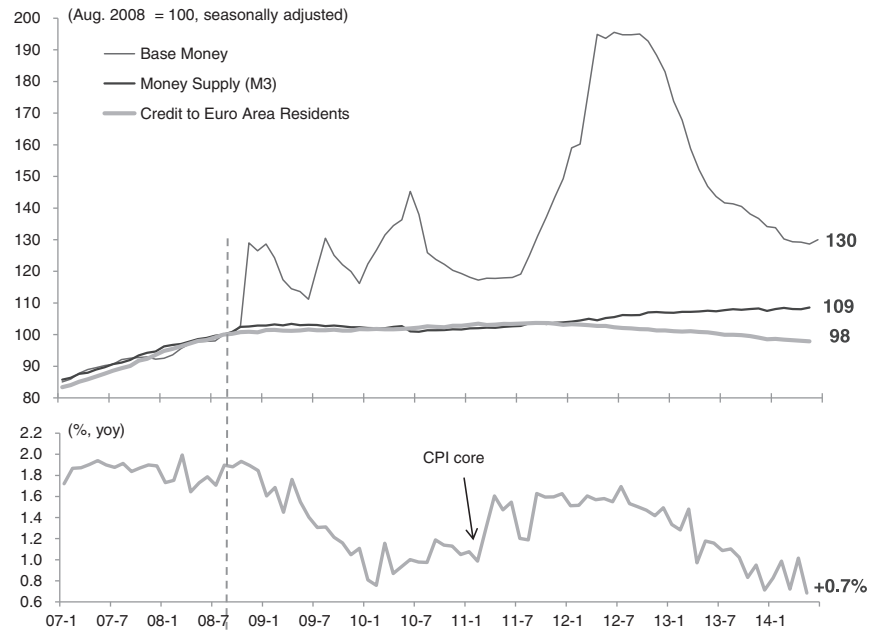
Note: Commercial bank loans and leases, adjustments for discontinuities made by NRI.

Sources: FRB; U.S. Department of Commerce.

monetary base, or base money, which tells us how much liquidity the central bank has supplied; the money supply, which indicates how much money is actually available for use by the private sector; and private credit, which shows how much the private sector has borrowed (in the United States, this is defined as total outstanding commercial bank loans and leases). It is important to look at all three because central banks can always supply liquidity (base money) by buying government or corporate bonds from private financial institutions. But for those funds to leave the financial sector, banks must lend them to someone in the real economy (private credit). In other words, liquidity (base money) provided by the central bank will stay in the banking system unless private financial institutions extend more credit to private borrowers.

The money supply, an indicator of how much money is available for the private sector to use, is mostly made up of bank deposits. Economists watch the money supply closely because it tends to be closely correlated with the inflation rate and nominal GDP. There are numerous definitions of the money supply ranging from M1 to M4, and their usefulness as indicators varies from one economy to the next. Figures 1.7 to 1.10 use the money supply definition considered most useful by the central bank in each country.

FIGURE 1.8 Drastic Liquidity Injections Resulting in Minimal Increases in Money Supply and Credit: Eurozone



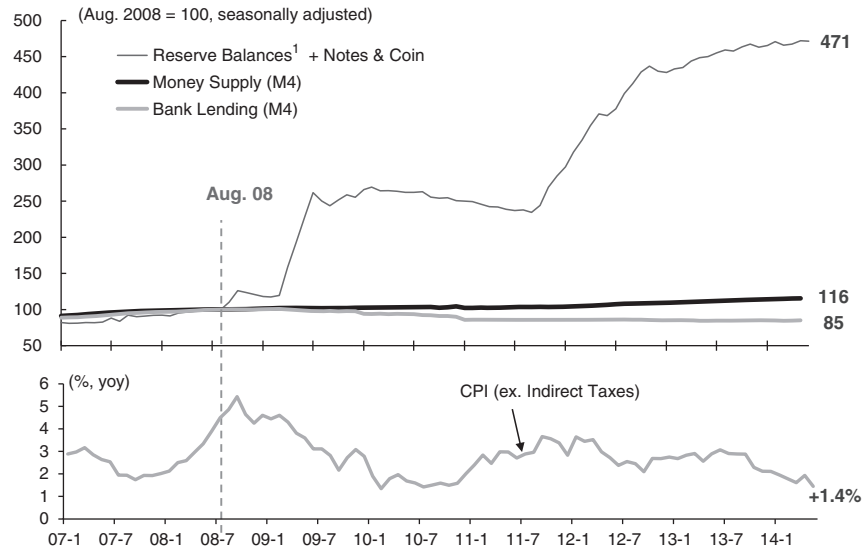
Note: Base money's figures are seasonally adjusted by NRI.

Sources: ECB; Eurostat.

Traditional economics teaches that these three indicators should move together. In other words, a 10 percent increase in the monetary base should ultimately lead to a 10 percent increase in the money supply and a 10 percent increase in private credit. That rule was largely valid in the pre-Lehman textbook world, when the three lines moved more or less together.

But this correlation between the three indicators has broken down completely in the post-Lehman world. The level of liquidity in the system, rebased to 100 at the time of the Lehman failure, rose to 466 as the Fed supplied liquidity under QE. Under ordinary circumstances this would cause both the money supply and private credit to increase from 100 to 466. Yet as Figure 1.7 shows, the money supply has grown to only 146, and private credit has barely recovered to pre-Lehman levels at 105. In other words, these indicators have completely decoupled. Some academics and pundits argue that the economy would improve if only the central bank would turn up the dials on the printing press, but the only aggregate the printing press can influence directly is the monetary base. It is the money supply and

FIGURE 1.9 Drastic Liquidity Injections Resulting in Minimal Increases in Money Supply and Credit: U.K.



Notes: 1. Reserve Balances data are seasonally unadjusted. 2. Money supply and bank lending data exclude intermediate financial institutions.

Sources: BOE; ONS.

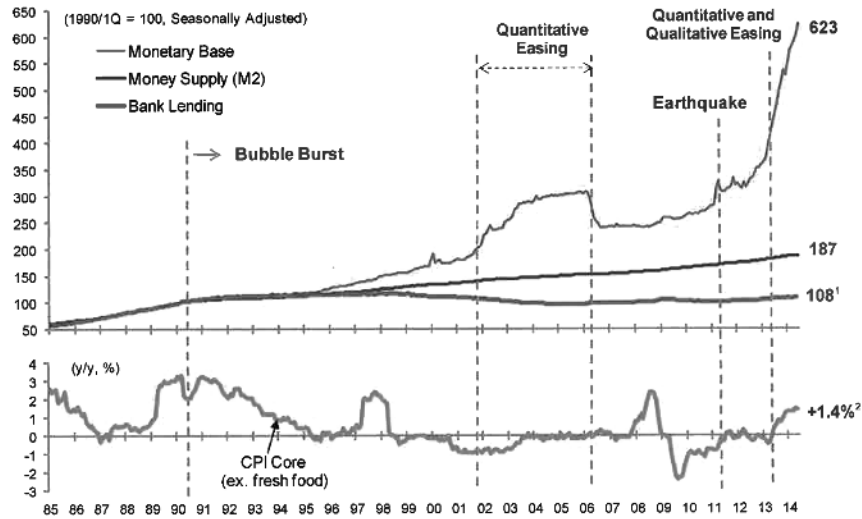
private credit, indicators of money available for private-sector use, that have a direct impact on GDP and inflation.

Monetary policy is effective if central bank accommodation increases money and credit for the private sector to use. In the United States, however, there has been little growth in either private credit or the money supply. As a result, U.S. inflation has slowed even after three rounds of quantitative easing by the Fed, as shown by the bottom line in Figure 1.7. That we have not seen a more pronounced economic recovery and an acceleration of inflation is attributable to the absence of growth in private credit and the money supply.

The same phenomenon can be observed in Europe. Figure 1.8 shows that these three indicators moved largely in line with each other until Lehman went bankrupt. Subsequently, growth in both private credit and the money supply has been modest at best in spite of massive base money expansion and repeated ECB rate cuts.

Figure 1.9 shows that in the United Kingdom as well, the three indicators moved largely in tandem prior to the collapse of Lehman and the Bank

FIGURE 1.10 Drastic Liquidity Injections Resulting in Minimal Increases in Money Supply and Credit: Japan



Notes: 1. Figures for bank lending are seasonally adjusted by NRI. 2. Excluding the impact of consumption tax.

Source: BOJ.

of England’s massive QE program. Readers may remember the boast by Paul Fisher, BOE’s executive director for markets, that the Bank would not repeat Japan’s mistakes and would engage in bold quantitative easing to boost the money supply and drive an economic recovery. Those of us in Japan sat back and waited to see if the BOE could do what Bank of Japan (BOJ) could not do, but in the end the U.K. money supply did not grow at all. Bank lending—that is, private credit—actually shrank, and continued shrinking. The monetary base may have expanded sharply, but the U.K. economy fell into a severe double-dip recession in 2011, and it was only in mid-2013 that the economy finally began to exhibit signs of recovery. The unusual movements in these three indicators observed in the West since 2008 mirrored those seen in Japan after its asset price bubble collapsed in 1990 (Figure 1.10).

In Japan, too, the three indicators began to decouple after the bubble burst in 1990. Amid a deepening economic slump, domestic politicians and academics strongly urged the Bank of Japan to stimulate the economy by increasing the supply of base money, and eventually the Bank did just that. When rebased to 100 in 1990 Q1, the monetary base stood at 376 when the term of the last BOJ governor, Masaaki Shirakawa, expired in March

2013. Yet the money supply—the amount of money available for the private sector to spend—expanded only 80 percent over the 23-year period, and private credit hardly grew at all. Without significant growth in these two indicators there is no reason why the economy should recover, and in fact it has not.

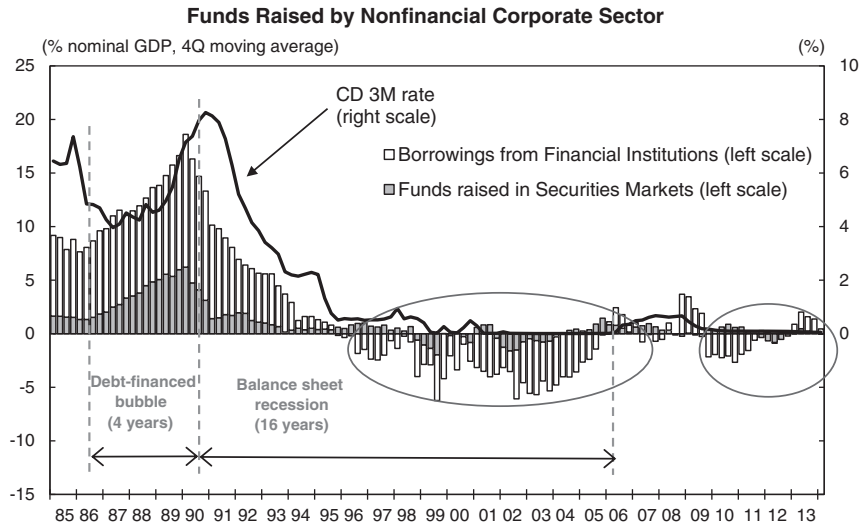
Under the “quantitative and qualitative easing” (QQE) policy of current governor Haruhiko Kuroda, base money had grown to 623 as of June 2014. His action, a key component of Abenomics, prompted an enthusiastic response from foreign investors who pushed Japanese stock prices 80 percent higher and the yen 20 percent lower. The weaker yen then pushed up Japanese prices somewhat. Although the foreign investor-led market movements changed the Japanese economic landscape in no small way, it remains to be seen whether the Japanese themselves will come to share the foreign enthusiasm. This point is discussed in detail in Chapter 4.

Japan Fell into Balance Sheet Recession in 1990s

So why did both Japan and the Western economies experience this unusual decoupling? To answer this question properly, we need to consider a special economic phenomenon not found in any economics textbook or business book (and that is no exaggeration). Businesses and households in all of these countries have been paying down debt in spite of near-zero interest rates, yet there is no university economics department or business school that teaches that the private sector should pay down debt at a time when money can be borrowed for free.

The view of orthodox economics is that when private businesses are paying down debt at a time of zero interest rates, it means managers cannot find a good use for money that is essentially free. Any company run by such incompetent managers should either fire them or cease operation and return its capital to shareholders, who should be able to find better places to invest their money—after all, companies exist because they are better than individuals at making money. Individuals, either directly or indirectly, invest their savings in businesses capable of generating profits, in return for which they hope to receive interest or dividend payments. Economists operating within this intellectual framework cannot envision a situation in which companies not only stop borrowing but actually start paying down existing debt in spite of zero interest rates. That is why such a case does not feature in any business school or economics text. Yet the private sectors in Japan, the United States, and Europe have all been increasing savings and paying down debt since their bubbles burst, deeply undermining the effectiveness of monetary policy.

FIGURE 1.11 Japan's Corporate Deleveraging with Zero Interest Rates Lasted for over 10 Years



Sources: BOJ; Cabinet Office, Japan.

Japanese companies, for instance, stopped taking out new loans and began paying down existing debt around 1995 in spite of short-term interest rates near zero. Figure 1.11 shows funds procured by Japanese firms from banks and the capital markets together with short-term interest rates. Interest rates had already fallen to near zero in 1995, but companies were not borrowing—in fact, they were stepping up the pace of their debt pay-downs. This decline in fundraising activity began soon after the bubble burst, at a time when inflation rates were still in positive territory, and by 2002/2003 debt was being retired at the unprecedented rate of ¥30 trillion a year, or 6 percent of Japan's GDP.

The same phenomenon was observed in Europe and the United States starting in 2008, with businesses and households rushing to save more and pay down existing debt in spite of positive inflation rates and significantly negative real interest rates.

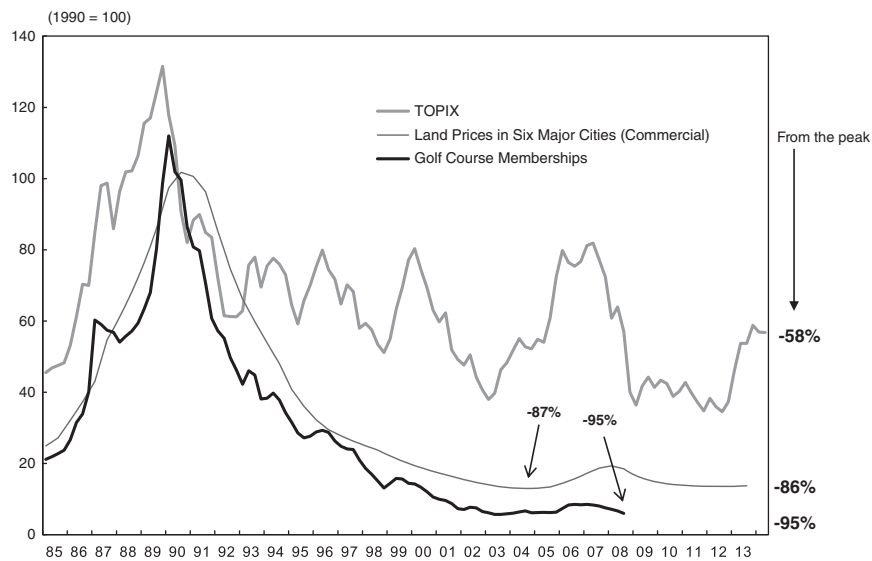
When the companies that ordinarily borrow money to expand their businesses stop doing so as a group and begin paying down debt, the economy loses two key sources of demand. First, companies themselves stop investing cash flows. Second, the corporate sector stops borrowing and spending the savings of the household sector. The resulting drop in aggregate demand then tips the affected countries into severe recessions.

Plunging Asset Prices Create Balance Sheet Problems for Businesses

Why would private companies that would ordinarily be induced by low interest rates to borrow money choose instead to pay down existing loans at a time when rates have fallen to zero or near-zero levels? The answer is that the prices of assets they bought with borrowed money experienced catastrophic declines after the bubbles collapsed, severely impairing their balance sheets. Figure 1.12 shows commercial real estate prices in Japan's six largest cities along with the TOPIX and the price of golf club memberships. As the graph shows, commercial real estate prices plunged 87 percent from their peak in a country whose economy was famously said to operate on the "land standard," and golf club memberships fell even further in value.

While asset prices sank, the money borrowed by households and businesses to acquire those assets remained intact. In other words, the value of assets purchased with borrowed money fell to a fraction of its original level, while the value of outstanding debt held steady. For a company that bought a ¥10 billion property with, say, ¥1 billion of its own money and ¥9 billion of debt, the bubble's collapse took the value of the land down to ¥2 billion, yet the company still had ¥9 billion in debt. In effect, there

FIGURE 1.12 Collapse in Asset Prices Prompted Private Sector Deleveraging



Sources: Tokyo Stock Exchange; Japan Real Estate Institute; *Nikkei Sangyo Shimbun*.

was an unrealized loss of ¥7 billion on the property and a corresponding impairment of the corporate balance sheet.

Japanese Firms Rushed to Repair Balance Sheets by Paying Down Debt

A company is effectively bankrupt when its liabilities exceed its assets. But there are two types of bankruptcy. In an ordinary bankruptcy, customers stop buying a firm's products—be they automobiles or cameras—and eventually the business loses enough money that it becomes insolvent. In this case, bankruptcy is a natural result of the market's rejection of the firm's products.

But what happened in Japan starting in 1990 was different. Japan boasted the world's largest trade surplus throughout most of this period, which implies that global consumers liked Japanese products and that Japanese companies had both outstanding technology and the ability to develop appealing products. The recurring trade frictions with the United States during the 1990s were evidence of both the quality of Japanese products and the demand for those products.

In other words, the fundamentals of Japanese businesses—their ability to develop technologies and sell products—were still healthy. Cash flows were strong and profits were reported year after year. But the collapse of the bubble and the resulting plunge in domestic asset prices opened a large hole in corporate balance sheets. Many companies saw their net worth plunge into negative territory. Tens of thousands—perhaps hundreds of thousands—of Japanese businesses found themselves in this situation after the bubble burst.

When a business still has healthy cash flows but faces severe balance sheet problems, its response will be the same whether it is a Japanese, U.S., German, or Taiwanese firm. It uses cash flow from the core business to retire debt as quickly as possible. Loans can be paid down as long as the main business continues to generate cash flow. And since asset prices will never turn negative, the balance sheet will eventually be repaired if the firm keeps paying down debt. At that point in time the company will return to the profit-maximization mode envisioned in economics texts. Until then, however, the chief priority for businesses that have healthy cash flows but are technically insolvent is not the maximization of profit but the minimization of debt.

During this process, these companies will present a happy face to journalists and analysts and discuss their optimistic earnings forecasts while quietly if not secretly doing everything in their power to pay down the debt. Discovery of the balance sheet problems by someone outside the company

could have severe repercussions for the firm's creditworthiness and credit rating. Media reports that a company was effectively insolvent, for example, would result in major turmoil starting the next day. Banks would cut off its access to credit, and suppliers would start requiring cash settlements instead of allowing the firm to pay on installments or by drafts. The firm would face a struggle to survive. That is why companies with impaired balance sheets but healthy cash flows place first priority on (quietly) paying down their debt so that they can get out of this embarrassing and dangerous situation as soon as possible.

Adding urgency to this task was the fact that Japanese firms had been using substantially more leverage than their U.S. or European counterparts through the end of the 1980s. They borrowed heavily because they enjoyed high growth rates and the price of the assets they acquired using borrowed funds rose continually up to the point of the bubble's collapse. Any businessperson employing high leverage would be sensitive to the attendant risks and, upon seeing the slightest sign of a recession or a drop in asset prices, would quickly move to pay down debt, as that constitutes the most effective form of self-defense.

The act of deleveraging is not only the right thing but also the responsible thing to do (if we ignore the decision not to divulge balance sheet problems to outsiders). A company that has a healthy core business will eventually be able to pull itself out of the red using cash flows. It is only a matter of time. And the alternative—a declaration of bankruptcy—would have huge repercussions for all involved.

Shareholders do not want to hear that their shares have become worthless, and creditors do not want to hear that their assets have gone bad. Nor do company employees want to hear that their services are no longer needed. The correct and preferable course of action from the perspective of all corporate stakeholders, therefore, is to pay down debt with cash flow. As long as cash flow remains healthy, time will solve the issue of technical insolvency. That is why so many Japanese firms began paying down debt in the 1990s.

“Correct” Private Sector Behavior Tipped Japan into Contractionary Equilibrium

The private sector began paying down debt after the debt-financed asset bubble collapsed, leaving only debt in its wake. This was both responsible and correct behavior for individual businesses and households, but as a result of their actions the economy as a whole experienced what are known as fallacy-of-composition problems. A fallacy of composition refers to a situation in which behavior that is correct for individuals or

companies has undesirable consequences when everyone engages in it. Japan has confronted many such problems over the past 20 years, and the West has confronted the same problem for the past seven years.

A fallacy of composition problem arises because a nation's economy will stall if people stop borrowing and spending the funds that are returned to the financial system as others save or pay down debt. If everyone joins the latter group, leaving no one to borrow and spend, aggregate demand will contract by the amount of unborrowed savings.

In an ordinary economy, banks and securities firms (i.e., the capital markets) act as intermediaries and channel funds saved by households or repaid by businesses into the hands of other borrowers. For example, assume that a household with income of ¥1,000 spends ¥900 and saves the remaining ¥100. The ¥900 that was consumed becomes income for someone else and resumes circulating in the economy. The ¥100 that was saved is lent out via banks or securities firms to companies that borrow and spend (invest) it. Hence the initial ¥1,000 in income generates a total of ¥1,000 (¥900 + ¥100) in expenditures, keeping the income stream flowing.

To continue with this analogy, if there are not enough companies to borrow the ¥100 in household savings, or if they only want to borrow ¥80, banks will offer reduced loan rates in an attempt to attract more borrowers. If this is a nationwide problem, the central bank will also lower interest rates, since a shortage of borrowers implies that money is not circulating and that the economy is weak. Lower interest rates will encourage companies that were hesitant to borrow at high interest rates to borrow and spend. That, in turn, will ensure the full ¥1,000 (¥900 + ¥100) passes into the hands of others, keeping the economy's engine going. On the other hand, if there are too many borrowers and companies are competing for funds, market principles will see that interest rates rise, so that only those willing to borrow at the higher rates will borrow and spend the ¥100. That is how an economy normally functions.

During the past 20 years in Japan, however, no borrowers stepped up to the plate even after interest rates fell to zero (Figure 1.11). That is hardly surprising, since companies struggling with insolvency had no interest in borrowing more money just because it had become cheaper. In fact, companies paid down tens of trillions of yen in debt each year in spite of near-zero interest rates. And banks were not allowed to lend money to companies they knew were technically insolvent, particularly when the banks themselves had balance sheet problems. Under these circumstances, there was no one willing to borrow and spend the hypothetical ¥100 in household savings even with interest rates at zero. Instead, the money stayed with the bank as unborrowed savings, representing a leakage from the economy's income stream. Hence only ¥900 of the original ¥1,000 was spent to become income for other people or businesses.

The household that received that ¥900 as income may also want to consume 90 percent of that amount (¥810) and save the remaining 10 percent (¥90). Here as well the ¥810 would become someone else's income, but with no borrowers the remaining ¥90 would remain in the banking system as unborrowed savings. In Japan, the absence of borrowers at a time of zero interest rates persisted for more than 10 years starting in 1995, as shown in Figure 1.11, because the fall in asset prices was so large. As this process is repeated, the initial income of ¥1,000 is reduced to ¥900, ¥810, ¥729, and so on, sending the economy into a deflationary spiral. And all this is happening at a time of zero interest rates. Since there was no name in the economics literature for a recession triggered by private-sector debt minimization, I dubbed it a balance sheet recession.

The resulting economic weakness not only depresses asset prices further but also squeezes the corporate profits funding the debt paydowns, adding to the pressures on companies striving to deleverage. While paying down debt to restore solvency is the right and responsible thing to do for individual companies, it can lead to disastrous fallacy-of-composition problems when companies do so as a group. This is precisely what happens during a balance sheet recession, when a burst asset bubble prompts the private sector to turn from maximizing profits to minimizing debt.

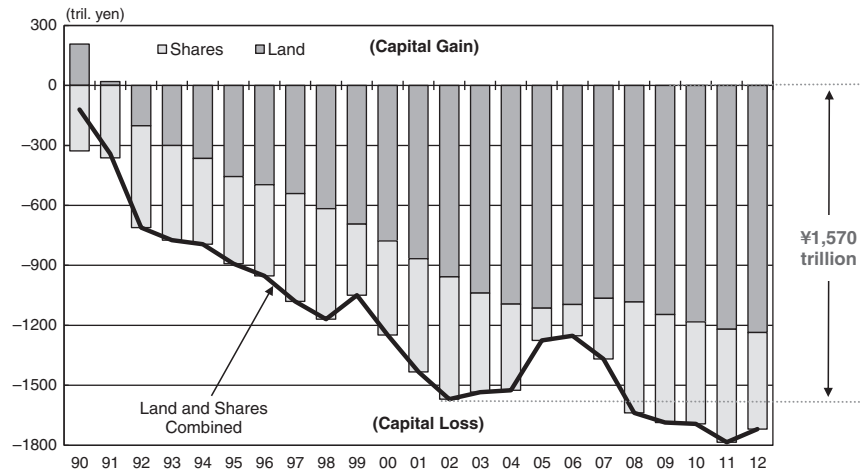
And when the private sector stops borrowing money even at zero interest rates, any funds supplied to financial institutions by the central bank remain stuck within the financial system because there are no borrowers. That is why growth in private credit and the money supply has been so sluggish post-Lehman despite dramatic expansion of the monetary base by central banks. The key implication here is that the effectiveness of monetary policy diminishes dramatically as the private sector switches from maximizing profit to minimizing debt. This point will be discussed in detail in Chapter 2.

Incidentally, the ¥1,000 example discussed above looks only at household savings. The actual decline in aggregate demand would also have to include net debt paydowns by the corporate sector. Without any borrowers, the sum of these two amounts would remain within the banking system and thereby constitute a leakage from the economy's income stream.

Collapse of Japan's Bubble Destroyed ¥1,500 Trillion in Wealth

The fact that so many Japanese companies began paying down debt at once highlights the severity of the balance sheet damage incurred when the asset bubble collapsed. Figure 1.13 illustrates the wealth destroyed by falling land and share prices from 1990 onward. In these two asset categories alone, ¥1,570 trillion in wealth, equal to the entire stock of personal financial assets

FIGURE 1.13 Cumulative Capital Losses on Shares and Land since End-1989 Reach 1,570 Trillion Yen



Source: Cabinet Office, Japan National Accounts.

in Japan, evaporated after the bubble burst. In other words, the plunge in asset prices eliminated national wealth equal to three years of 1989 gross domestic product. To the best of my knowledge, no other nation in history has experienced such a large economic loss during peacetime.

Yet Japan was not the first nation to experience a massive peacetime loss of national wealth. In the Great Depression, which began in 1929, the U.S. private sector rushed to pay down debt in response to a plunge in the price of stocks and other assets. Americans had been going into debt to buy everything from shares to consumer durables as the bubble economy pushed asset prices ever higher. But the stock market crash that began in New York in October 1929 sent asset prices tumbling and left behind only the associated debt. People then tried to reduce their liabilities by using personal and corporate income to pay down debt, and as a result there were no borrowers no matter how far the Fed cut rates.

The United States entered the kind of deflationary spiral described above, with income falling from \$1,000 to \$900 to \$810 and so on, and after just four years U.S. GNP had plunged 46 percent from its 1929 peak. The unemployment rate was 25 percent nationwide and exceeded 50 percent in major cities. Share prices fell to one eighth their peak levels. Still, national wealth lost in the crash amounted to only one year (1929) of GNP, approximately a third of the damage incurred by Japan. This underscores the severity of the damage caused when the Japanese bubble burst in 1990.

This also explains why it took so long for Japanese companies to repair their balance sheets.

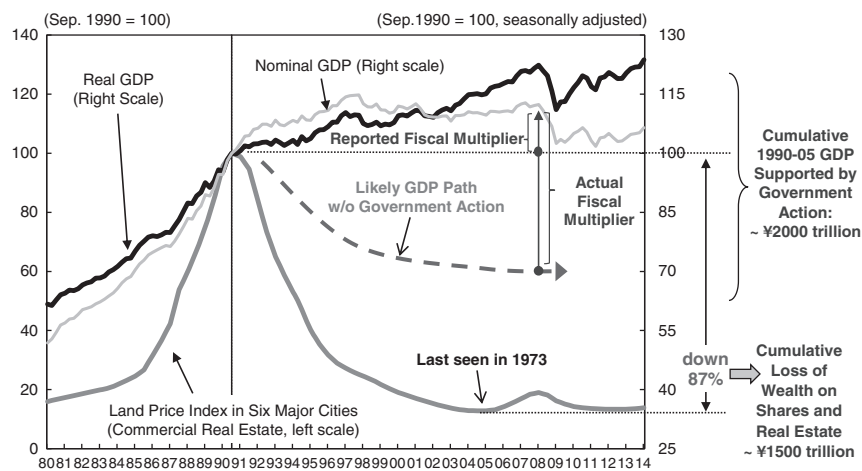
Why Japanese GDP Did Not Fall after Bubble Burst

More than ¥1,500 trillion in national wealth evaporated after the bubble burst (Figure 1.13) as private companies moved collectively to deleverage. With the corporate sector deleveraging to the tune of 6 percent of GDP and the household sector saving on average 4 percent of GDP per year, Japan could have lost 10 percent of its GDP every year, just as the United States did during the Great Depression. Yet Japanese GDP did not fall below the bubble-era peak—in either nominal or real terms—even once over the next 20-plus years. This is despite the fact that commercial land prices plunged 87 percent and fell back to the levels of 1973 (Figure 1.14).

This brings us to the biggest difference between Japan’s recession and the Great Depression. Like the United States, Japan fell into a deflationary spiral and could easily have seen its GDP drop to a fraction of the peak, but that did not happen.

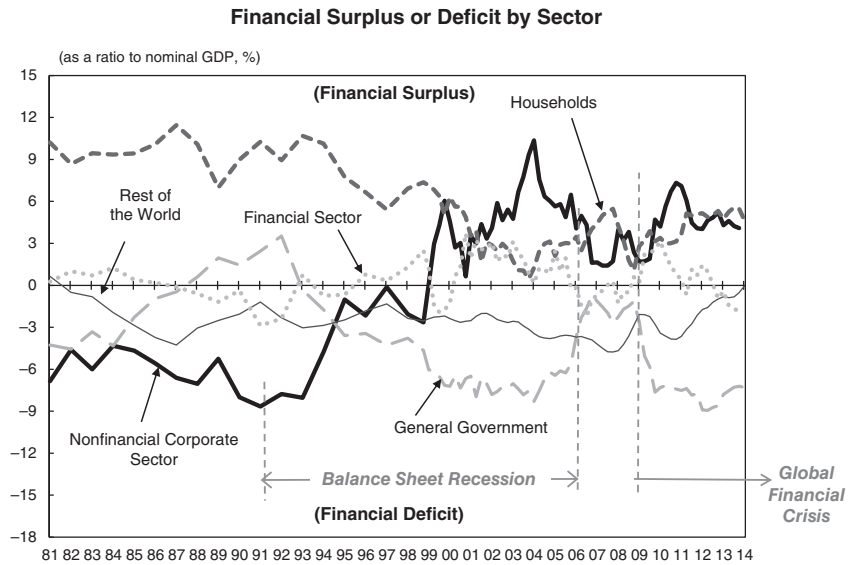
So who has been saving and who has been borrowing in Japan over the past 20 years? Figure 1.15a summarizes flow-of-funds data, which tell us which sectors of the economy are saving and which are borrowing. The area above the zero centerline in this graph indicates a financial surplus,

FIGURE 1.14 Japan’s GDP Grows Despite Major Loss of Wealth and Private Sector Deleveraging



Sources: Cabinet Office; Japan Real Estate Institute.

FIGURE 1.15a Japan’s Recession Driven by Dramatic Change in Corporate Behavior



Note: All entries are four-quarter moving averages. For the latest figures, four-quarter averages ending in 2014 Q1 are used.

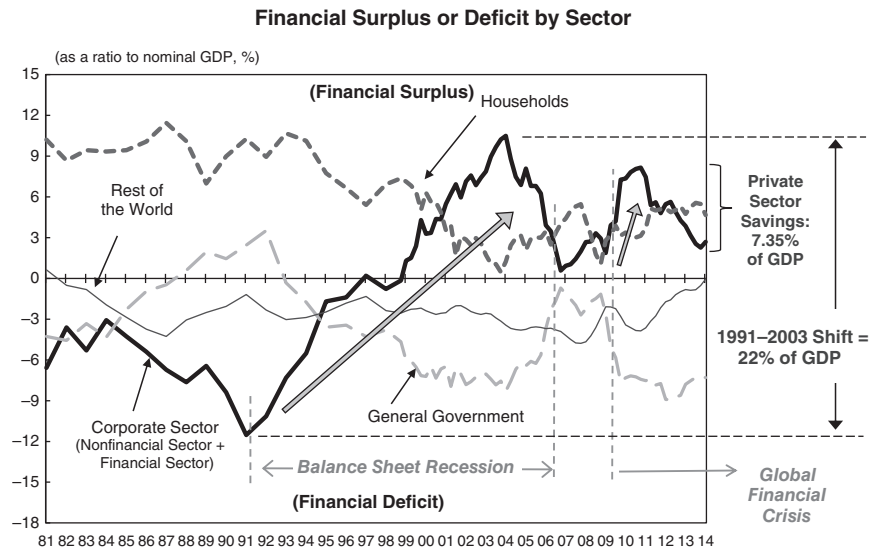
Sources: BOJ, Flow of Funds Accounts; and Government of Japan, Cabinet Office, National Accounts.

which means sectors above that line were supplying funds to the broader economy (i.e., they were net savers). Sectors below that line were running a financial deficit, which means they were borrowing funds (and hence were net investors).

These data typically divide the economy into five sectors—household, nonfinancial corporate, financial, government, and the rest of the world—and are compiled in such a way that at any point in time the five should sum to zero. The graph therefore shows which sectors in the Japanese economy are saving and which are borrowing and spending those savings. Heavy volatility in some sectors makes the graph in Figure 1.15a difficult to read, so Figure 1.15b takes the figures for financial firms and nonfinancial corporations and adds them together (since both experienced major balance sheet problems) to produce four instead of five sectors. A four-quarter moving average is also used to compensate for seasonal fluctuations. Moving averages are often used to help identify the underlying trend in flow-of-funds data.

To understand what this graph is telling us, consider what it would look like in an ideal world. In such a world, the household sector would sit at

FIGURE 1.15b Identifying the Underlying Trend in Japan's Recession



Note: All entries are four-quarter moving averages. For the latest figures, four-quarter averages ending in 2014 Q1 are used.

Sources: BOJ, Flow of Funds Accounts; and Government of Japan, Cabinet Office, National Accounts.

the top (net saver) and the corporate sector at the bottom (net investor), with the remaining two sectors—government and the rest of the world—located near the centerline. A household sector near the top of the graph indicates a high household savings rate, while a corporate sector near the bottom means that businesses are actively borrowing and investing, which translates to a high rate of investment. For the government and the rest of the world to fall near the centerline indicates the nation's fiscal and external balances are in equilibrium. This is the ideal situation for an economy.

Did conditions in Japan ever approach this ideal? The answer is yes: at the peak of the bubble, in 1990. At the time, Japan's household sector was located at the top of the graph, the corporate sector was at the bottom, the rest of the world had a modest deficit (below the zero line), and the government had a modest surplus (above the zero line). The deficit for the rest of the world implies that other countries were borrowing money from Japan—that is, that Japan was running a current account surplus. The surplus for the government sector signifies a fiscal surplus. In short, Japan's economy in 1990 was characterized by the perfect combination of a high savings rate, a high investment rate, and fiscal and current account surpluses. Just over a decade earlier, in 1979, Harvard professor Ezra Vogel had published *Japan*

as *Number One: Lessons for America*, which became a bestseller in Japan. In a sense, the book's title was an accurate reflection of conditions at the time. From the perspective of flow-of-funds data, Japan's economy in 1990 was in an ideal position, and it is hardly surprising that Japan was seen as being unchallenged on the global economic stage.

Unfortunately, Japanese investment was in a bubble in 1990, and everything changed when the bubble burst. The plunge in asset prices that began in 1990 opened a large hole in the corporate sector's balance sheet, prompting businesses to begin deleveraging, and funds raised by the sector declined steadily starting in 1990.

The number of companies paying down debt continued to rise, and by 1998 the corporate sector as a whole had become a net saver, lifting it above the centerline in the graph. This implies that businesses not only stopped borrowing the household sector's savings but also began using their own cash flows to pay down debt. From that point onward the corporate sector continued to run a financial surplus—starting in 2000 it actually saved more than households. Businesses, ordinarily the largest borrowers in an economy, became the biggest savers, and instead of borrowing from financial institutions they paid loans back to them, which is a dangerous set of circumstances for any economy. In Japan these conditions persist even today. These conditions have also been seen in Germany since 2003 and in many Western countries since 2008.

Because businesses not only stopped borrowing money to invest but also began using their own cash flows to pay down debt, corporate-sector demand equal to 22 percent of GDP was lost between 1990 and 2003 (Figure 1.15b). In other words, the plunge in asset prices eliminated corporate-sector demand equivalent to more than 20 percent of GDP. Such a drastic loss of demand will trigger a recession no matter how strong the economy. Thus Japan found itself heading toward another Great Depression.

Fiscal Stimulus Saved Japan's Economy

If so, why did Japan's GDP never fall below its bubble-era peak? The short answer is that the government decided to borrow and spend the ¥100 in the preceding example.

The government continued to run a fiscal surplus in 1990 and 1991, immediately after the bubble burst, because tax revenues remained high. But as the economy weakened sharply starting in 1992, policymakers decided that the economy had entered a cyclical (i.e., ordinary) downturn and that a year or two of fiscal stimulus would suffice to prime the pump and get the economy rolling again. This was precisely the same view espoused in 2008 by Lawrence Summers, the Obama administration's first NEC chairman, who believed a large jolt of fiscal stimulus would be enough to put

the economy back on track (see Chapter 3). It is therefore hardly surprising that the pork-loving politicians of the ruling Liberal Democratic Party (LDP) recommended the government stimulate the economy by repairing and building infrastructure such as roads and bridges.

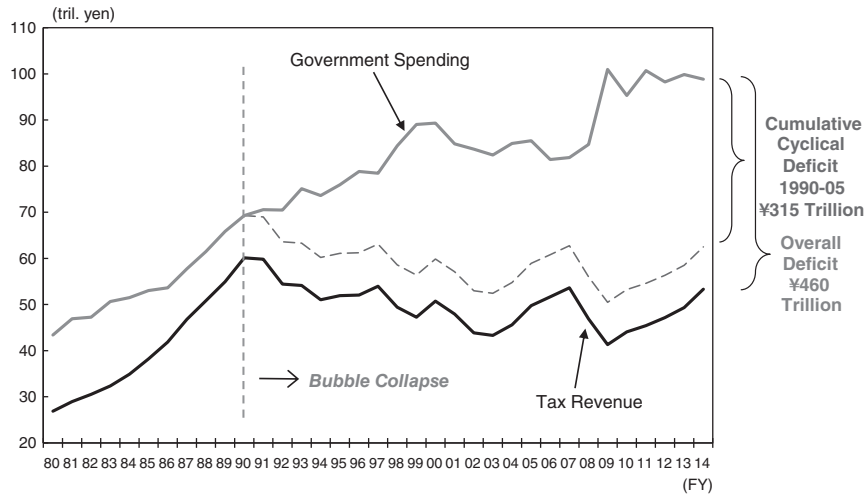
Fiscal stimulus is essentially debt-financed spending by the government. In the context of the example above, the government steps in to borrow and spend the ¥100 that the household sector saved but the corporate sector did not borrow and is therefore lying fallow in the banking system. By doing so, it ensures that the original ¥1,000 in income generates ¥1,000 (¥900 + ¥100) in expenditures, preventing a contraction in GDP. That is why Japan's GDP did not decline.

Initially the fiscal stimulus appeared to stabilize the economy as expected, and everyone was reassured to see the government's economic policies had worked. But the economy weakened again as the impact of that spending faded in the next year. Why did the stimulus, instead of priming the pump, have only a temporary effect on the economy? The answer is simple. When commercial real estate prices fall 87 percent from their peak and destroy some ¥1,500 trillion in national wealth in a country, it is impossible for businesses to repair their balance sheets in a year or two. Ordinarily it takes at least several years. And for those unlucky companies that bought at the peak of the real estate market, it might take 20 years to do so. They will continue to pay down debt as long as their businesses continue to generate cash. And in the meantime they will no longer borrow the household sector's savings, forcing the government to administer an annual dose of fiscal stimulus to fill the resulting gap.

Japan's fiscal deficits therefore rose sharply, as shown in Figure 1.16, and the public debt climbed to the levels we see today. But it was precisely because the government spent this money that GDP remained above the bubble-era peak in spite of a dramatic shift in corporate behavior and the loss of national wealth amounting to three full years of GDP. In other words, this annual dose of fiscal stimulus enabled the government to prevent a deflationary gap.¹

¹ In orthodox economics, a deflationary gap refers to the difference between potential and actual GDP. One shortcoming of this definition is that the size of the gap varies greatly depending on how potential GDP is estimated. For the purposes of this book a deflationary gap is defined as the amount of unborrowed private savings—that is, the sum of household savings and net debt repayments by the corporate sector—left sitting in the banking system because of an absence of borrowers. This sum is equivalent to leakages from the economy's income stream and does not suffer from the numerous problems involved in estimating potential GDP.

FIGURE 1.16 Japanese Government Borrows and Spends Unborrowed Savings of Private Sector to Sustain GDP



Note: FY2014 is initial budget and FY2013 includes supplementary budget.

Source: Ministry of Finance, Japan.

“Good” Fiscal Deficits Were Not Perceived as Such

This policy left Japan with a huge public debt. But if the government had not stimulated the economy in this way, GDP would probably have fallen to half or less than half of its peak level—and that is in an optimistic scenario. When the crash in U.S. asset prices during the Great Depression destroyed wealth equivalent to a year of 1929 GNP, output plunged 46 percent. As Japan lost wealth equal to more than *three years* of 1989 GDP, the resulting hit to the economy would almost certainly have been substantially greater. This disastrous outcome was averted only because the government administered fiscal stimulus early on and continued to do so over an extended period of time. Its actions ultimately prevented the economy from falling over the precipice.

The fallacy-of-composition problems noted above occurred because businesses and households did what they thought was right and paid down debt. And it was because the government did exactly the opposite—in effect taking the other side of the bet—that an economic tragedy was averted. By correctly administering fiscal stimulus, the government prevented the economic crisis from causing a devastating drop in living standards. By 2005, corporate balance sheets in Japan were fully repaired, leaving only the

government balance sheets to be repaired. In that sense, Japan's fiscal stimulus was one of the most successful economic policies in human history.

Unfortunately, many policymakers, academics, and members of the press both in Japan and overseas were unable to see things in this light and they made it difficult for the government to apply fiscal stimulus in a predictive way. After all, the entire edifice of traditional economics is built on the assumption that the private sector always allocates resources better than the public sector. But this assumption is valid only when private-sector balance sheets are healthy and it is maximizing profits, a condition that has not been satisfied in Japan for the past 20 years or in many Western economies for the past six.

It took people so long to understand and overcome this recession because no university teaches that technically insolvent companies will choose to minimize debt instead of maximize profit. Even today, one would be hard-pressed to find a university-level economics textbook that teaches that companies will sometimes decide to pay down debt at a time of zero interest rates. And governments seldom explain that fiscal stimulus is necessary because the private sector is paying down debt or because living standards cannot be sustained without it.

Even the Japanese government's success in averting an economic crisis with fiscal stimulus elicited misguided criticism of its economic policy. In particular, most of those taking a superficial view of Japan's economy—including the International Monetary Fund (IMF) up to 1997—insisted that Japan remained in an economic slump because the government was spending money inappropriately. They argued that the hundreds of trillions of yen in fiscal stimulus administered since the bubble must have been wasted because the economy was only treading water.

They assumed, in other words, that Japan's economy would have been able to achieve zero growth without any fiscal stimulus. They argued that the modest growth in output after trillions of yen in government expenditures implied an extremely low fiscal multiplier, which in turn meant the money had been wasted on useless public works programs. Those journalists who had nothing better to do combed Japan for examples of wasteful public works projects and cited them as evidence the government had wasted taxpayer money. They said GDP growth was low or nonexistent and the economy had failed to enter a self-sustaining recovery because the government's massive fiscal stimulus in the form of public works investment had been wasted on unnecessary projects. In short, they bashed the stimulus based on the totally unfounded assumption that Japan would have been able to maintain zero growth without any help from the government.

In reality, it was only because the government boosted fiscal expenditures to the extent it did that the economy was able to tread water, avoiding a devastating drop in living standards. It is nothing short of a miracle that

Japanese GDP remained above the bubble-era peak in spite of an 87 percent fall in commercial real estate prices and the corporate sector's rush to pay down debt worth 6 percent of GDP a year. And it was a miracle made possible by government spending.

Japan's cumulative fiscal deficit increased by ¥460 trillion in the 16 years from 1990 until the corporate sector stopped paying down debt in 2005. While certainly large, it was a *good* fiscal deficit because Japan's GDP might well have collapsed along with the bubble had the government not incurred it.

The dotted line in Figure 1.14 shows a scenario in which the government did nothing and Japan's GDP fell back to 1985 levels one year before the bubble began. When the Roaring Twenties in the United States ended with the stock market crash of 1929 and the country lost national wealth equal to a year of GNP, the resulting deflationary spiral prompted a 46 percent decline in GNP. Given that precedent, it would hardly be surprising if Japan, which lost wealth equivalent to three years of GDP, had seen output drop by more than half. However, the dotted line in the figure conservatively assumes that GDP fell back only to the level of 1985. As GDP was ¥330 trillion in 1985, the gap between this line and actual GDP would be at least ¥120 trillion to ¥180 trillion, although the exact figure would depend on whether GDP fell suddenly or gradually. If we assume this state of affairs continued for 15 years, the cumulative loss of output would be ¥150 trillion \times 15 = ¥2,250 trillion.

This implies that Japan was able to "buy" ¥2,250 trillion of GDP with fiscal stimulus of ¥460 trillion, which is a bargain by any standard. Amid an 87 percent decline in land prices and the evaporation of ¥1,500 trillion in national wealth, this ¥460 trillion in government spending prevented Japan's GDP from falling even as the private sector began collectively paying down debt. While mistakes were made—the policy failures of 1997 and 2001 will be discussed later—it would be no overstatement to say this was one of the most successful fiscal stimulus programs in human history.

Nevertheless, the media, the IMF, and orthodox academic economists were unable to understand this. They repeatedly criticized government spending on public works projects based on the misguided assumption that GDP could have been sustained at around the bubble-peak level of ¥450 trillion without any action from the government.

Balance Sheet Recessions and the Limitations of Econometric Models

When using econometric models to estimate multipliers, economists start with an implicit assumption that the economy is in a stable equilibrium that

requires no external support. That is because these models measure the fiscal multiplier by calculating the extent to which fiscal stimulus boosted the economy *from a given stable equilibrium*. In other words, those arguing that Japan's fiscal stimulus had a low multiplier using these models are implicitly assuming that the economy has been at or near equilibrium for the past 20 years.

In reality, however, the Japanese economy has been far from equilibrium for the past 20 years. Just keeping output from shrinking has required fiscal stimulus in excess of 8 percent of GDP. Without the support of government demand, Japan's economy could easily have fallen into a deflationary spiral in which income shrank from ¥1,000 to ¥900, from ¥900 to ¥810, and so on.

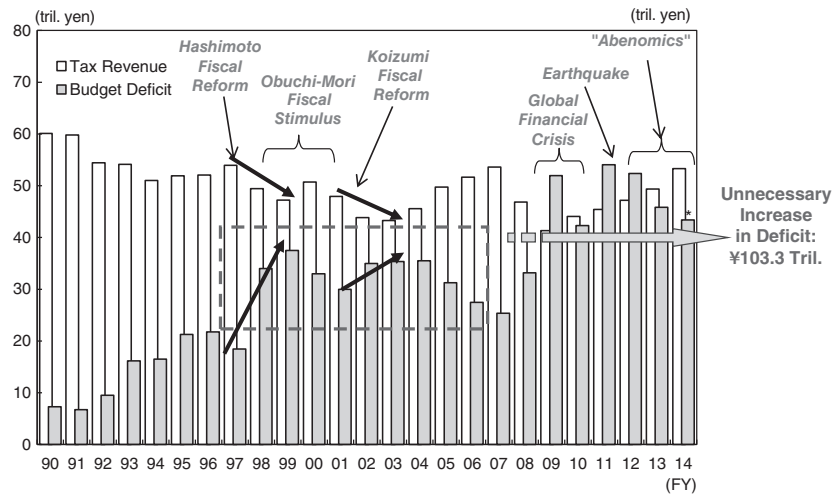
An accurate measurement of the fiscal multiplier requires that we make a presumption about where GDP would have been in the absence of fiscal support and then compare that with the actually measured level. But without fiscal stimulus, Japan would either be in the midst of a massive deflationary spiral or would already have entered the final stage of that process, better known as a depression.

The correct fiscal multiplier would therefore be based on the difference between actual GDP and depression-level GDP. That gap is massive and produces a multiplier far larger than the commonly reported figure of 1.1 or 1.2. For instance, if we assume that GDP would have followed the dotted line in Figure 1.14 in the absence of the ¥460 trillion fiscal stimulus, the cumulative ¥2,000 trillion gap between that and actual GDP suggests the actual multiplier was more than 4.

Unfortunately, most of the econometric models in use today are built around the assumption that the economy is at or near equilibrium. Such models are basically useless when the economy is far from equilibrium, as it is today. Yet many economists in Japan and elsewhere are unaware of this basic limitation and use the meaningless estimates of fiscal multipliers from these models to criticize fiscal stimulus as being an ineffective waste of money.

In 1997, for example, the IMF and the Organisation for Economic Co-operation and Development (OECD) recommended that Japan reduce its fiscal deficits based on the view that a reduction in "ineffective" government expenditures would not have a substantial adverse economic impact. Before compiling their recommendations both organizations dispatched teams to Japan to conduct interviews, and I happened to be among those interviewed. Although I strongly warned against spending cuts or tax hikes, my views were not incorporated in the final recommendations presented to the Japanese government. Then-prime minister Ryutaro Hashimoto accepted their suggestions and pushed through spending cuts and tax hikes in an attempt to reduce the deficit.

FIGURE 1.17 Japan’s Fall from Its Fiscal Cliff in 1997 and 2001: Weakened Economy, Reduced Tax Revenue, and Increased Deficit



Note: Latest figures (*) are estimated by MOF. From FY2011, figures include reconstruction taxes and bonds.

Source: Ministry of Finance, Japan.

As a result of his actions, Japan’s economy shrank for an unprecedented five consecutive quarters (as reported at that time), which also triggered a massive banking crisis. That is the natural outcome when the government scales back spending at a time when households are saving but companies are not borrowing. Tax revenues declined in spite of higher tax rates as the economy collapsed, and the fiscal deficit, instead of falling by ¥15 trillion as initially forecast, actually increased by ¥16 trillion (Figure 1.17). It took 10 years for the deficit, which rose by 72 percent as a result of these actions, to fall back to its original level.

The economic collapse that began in 1997 demonstrated the extent to which economic activity was being supported by fiscal expenditures during the balance sheet recession—in other words, it showed that the fiscal multiplier was actually very large. The next year the IMF team returned to my office and apologized for their mistake by saying, “We are sorry for the Japanese people.” However, the IMF made exactly the same mistake during the Asian currency crisis in 1997 and again in Europe starting in 2008. Apparently, those covering Japan at the IMF in 1997 were not covering Europe in 2008. It was only in the autumn of 2012 that the IMF acknowledged its errors in Europe by admitting that fiscal multipliers were much larger than it had assumed.

Fiscal Stimulus Works in Two Stages

A closer examination suggests that fiscal stimulus administered during a balance sheet recession works in two stages. There is the marginal impact of fiscal expenditures until the deflationary gap is closed, and the marginal impact after it is closed. In other words, the marginal impact of a ¥1 trillion increase in fiscal stimulus from ¥35 trillion to ¥36 trillion when the deflationary gap is ¥40 trillion could be meaningfully different from that of a ¥1 trillion increase from ¥40 trillion to ¥41 trillion. In the former case, the spending occurs against the headwind of a deflationary gap that is trying to push the broader economy into a contractionary equilibrium, and the knock-on effects will naturally be limited. In the latter case, there are no such headwinds because the deflationary gap has already been eliminated, and the marginal impact of the ¥1 trillion is likely to be just as large as in an ordinary economy with no balance sheet recession.

Only the former type of impact has been observed in the past because fiscal stimulus has typically been insufficient and has always been behind the curve, especially in peacetime. Moreover, it is technically difficult to distinguish the marginal impact of spending in excess of the deflationary gap from that of spending to neutralize the deflationary gap. What is measured is the average knock-on effect of the *total* fiscal deficit. But since most of the government expenditures are being used to counteract the headwinds noted above, the estimated multiplier—although as noted above this figure itself is meaningless when an economy is not in equilibrium—is bound to be small.

FDR Made Same Mistake in 1937

Interestingly, President Roosevelt made exactly the same mistake in the United States as the Hashimoto administration did 60 years later in Japan. Roosevelt became president in 1932 after Herbert Hoover's balanced budget policy failed. He set about rebuilding the U.S. economy in 1933 with a shift to an activist fiscal policy called the New Deal. Although his policy was largely ad hoc and inconsistent, Roosevelt still succeeded in nearly doubling federal government spending between 1933 and 1936, and by 1937 some economic indicators had recovered to the levels of 1929.

Roosevelt was fundamentally opposed to deficit spending and mistakenly took this recovery as a sign that it was time to start reducing the deficit. When he did so in 1937, the U.S. economy collapsed almost instantly: share prices plunged by 50 percent, industrial production dropped by 30 percent, and the unemployment rate surged higher. This was a natural outcome of the fact that the government was effectively the only borrower between 1933

and 1937. The private sector did not increase borrowing at all during this period.

Roosevelt quickly reversed course and restored the government's fiscal stimulus, but it took a great deal of time and money to close the wound that was reopened in 1937. In the end, a full-fledged U.S. economic recovery would have to wait for the attack on Pearl Harbor in December 1941 and the massive expansion of fiscal expenditures unleashed by the war.

In February 1997, just two months before the Hashimoto administration embarked on its fiscal consolidation program, Shigeru Fujita and I jointly published an essay in the weekly magazine *Shukan Toyo Keizai* in which we examined America's experience in 1937 and pointed out the dangers of premature deficit-reduction efforts. Although this article failed to stop the tax hikes and spending cuts that were implemented in April 1997, the fact that the Japanese economy collapsed as a result of those measures—just as we had predicted—drew a great deal of attention from figures in the media and government. As a result, I was given the opportunity to make a variety of proposals for fiscal and banking policy.

The Ministry of Finance bureaucrats who pushed for austerity refused to acknowledge their mistakes in 1997. They continued to argue that although the poor economic performance in 1997 Q2, just after the Hashimoto administration raised the consumption tax, could not be helped, consumption in Q3 that year actually rose in year-over-year terms. They insisted the subsequent weakness in the economy was the result of other factors such as banking sector problems and the Asian currency crisis. But as University of Tokyo professor Tatsuo Hatta has pointed out, a closer examination of consumption data for 1997 Q3 shows that the only item showing a marked increase was food—and this was in reaction to sharply reduced demand in the year-before quarter due to an *E. coli* outbreak. Sales of consumer durables fell as predicted in response to the consumption tax hike, offering proof that the government's fiscal retrenchment was responsible for the economy's decline.

In the America of the 1930s as well, fiscal deficits as a percentage of federal spending actually peaked not during the Roosevelt administration's New Deal but rather in 1932, when Hebert Hoover was president and the economy was still in the doldrums. Hoover adopted an activist fiscal policy that year, but tax revenues fell to just 40 percent of federal spending. Revenues declined because Hoover held an unflinching belief in the importance of balanced budgets and had been reluctant to administer fiscal stimulus until 1931. The experiences of both Japan in 1997 and the United States in 1932 offer proof that during a balance sheet recession, when the private sector is looking backwards, the government should be wary of cutting off fiscal support for the economy. Trying to rein in the deficit at such times risks

producing not only a sharp deterioration in the economy but also an increase in the fiscal deficit as tax revenues plunge.

The Koizumi administration (2001–2006) made the same mistake. Prime minister Junichiro Koizumi declared the need for fiscal reform and capped new government bond issuance at ¥30 trillion, or about 6 percent of GDP, in 2001. But this attempt to rein in expenditures during a balance sheet recession prompted a further slump in the economy, and the revenue shortfall resulting from the decline in tax receipts caused the fiscal deficit to widen significantly (Figure 1.17). The deficit rose in spite of painful cutbacks in spending on public works projects because the private sector was not borrowing money, and the economy weakened as a result.

For fiscal consolidation to succeed, the private sector must be willing and able to borrow and spend the money that the government is no longer borrowing because of the tax hikes and spending cuts. If this condition is satisfied, there is no reason why fiscal retrenchment should cause GDP to fall, and if GDP does not fall fiscal retrenchment should be successful.

This condition is fulfilled under ordinary economic conditions—in other words, when the private sector is maximizing profits and there is no balance sheet problem. The determining factor in the success of fiscal consolidation then becomes the government's commitment. But during a balance sheet recession this condition—the private sector's willingness to borrow—is not satisfied. That means there is no reason why fiscal consolidation should succeed regardless of how committed the government is. In fact, there is a danger that the fiscal deficit will *increase*, as it did in Japan in 1997.

Reactive Fiscal Stimulus Is Far Less Efficient

During a balance sheet recession, undertaking fiscal stimulus early and sufficiently will minimize the ultimate (cumulative) deficit. If fiscal stimulus succeeds in stabilizing the economy, private incomes will be sustained, and the private sector can use that income to pay down debt and complete its balance sheet repairs.

But a delay in fiscal stimulus will cause the recession to grow that much deeper, depressing asset prices further and reducing the income available for the private sector to pay down debt, both of which prolong balance sheet adjustments. If fiscal stimulus comes only after the economy weakens and asset prices fall, further expenditures will be required at a time when the wound is already wide open. When the economy is about to contract from ¥1,000 to ¥900 and then to ¥810, economic activity will stabilize at ¥1,000 if the government injects ¥100 in fiscal stimulus at the outset. Two years of such stimulus would result in total economic activity of ¥2,000 and ¥200 in fiscal deficits.

But if the government waits a year before taking action, the economy will already have contracted to ¥900. At that point it will take ¥190 in stimulus to restore the economy to its original state, and total economic activity over the two-year period will amount to ¥1,900. In other words, ¥100 will be lost forever. The sum of the fiscal deficit and this lost economic activity is ¥290. This is ¥90, or 45 percent, more than if the government had injected fiscal stimulus from the start as a preventive measure. While some may argue that the fiscal deficit was ¥10 less in the second case, a real-world contraction of the economy to ¥900 will not only cause asset prices to fall but will also lower tax revenues, thereby producing a larger fiscal deficit. In addition, the weak economy reduces the amount of income available for people to repair their balance sheets, thereby prolonging the recession.

Japan's fiscal stimulus helped businesses repair their balance sheets while successfully sustaining economic activity. Japan's unemployment rate never went beyond 5.5 percent. However, fiscal stimulus was never carried out proactively. Successive Japanese governments administered stimulus only after the economy had stalled—in other words, they were always behind the curve. Hence they ran unnecessarily large fiscal deficits, and economic activity and jobs that might have been saved were lost permanently while the government wasted time vacillating between fiscal stimulus and consolidation. During a balance sheet recession the economy will fall into a vicious cycle as soon as unborrowed savings accumulate in the private sector. Consequently, applying fiscal stimulus after the symptoms emerge will always be less efficient than doing so proactively. During such a recession, proactive fiscal stimulus is essential to sustaining economic activity and minimizing the ultimate cost of treatment, which is measured by the cumulative fiscal deficit.

Fiscal Deficits Are Easily Financed during Balance Sheet Recessions

One issue that is always raised when making a case for fiscal stimulus during a balance sheet recession is the question of how to finance the spending. This sort of argument is especially common in countries already running large fiscal deficits and in the Eurozone periphery, where countries are unable to sell government bonds on the market and are said to have no “fiscal space.”

The question of how to finance fiscal deficits during balance sheet recessions and the lack of “fiscal space” in the Eurozone periphery are two completely different issues. The latter issue is something unique to the Eurozone and will be discussed in detail in Chapter 5. The former question—how to finance a fiscal deficit in this type of recession—can be ignored in practice

unless the country is a member of the Eurozone. That may surprise many readers, but it is easy to see once the driving mechanisms of balance sheet recessions are understood.

A balance sheet recession occurs when the private sector collectively becomes a net saver (where saving includes paying down debt) in spite of ultra-low interest rates. The unborrowed private savings created by the lack of private borrowers then leaks out of the economy's income stream. In the example discussed above, the absence of borrowers for the ¥100 saved by the private sector means this money stays within the financial system, becoming unborrowed savings and leaking from the income stream. Consequently, economic activity of ¥1,000 shrinks to ¥900, and as the cycle repeats it contracts to ¥810, ¥729, and so on as the economy's decline accelerates. The unborrowed savings that were saved but not borrowed by the private sector then pile up at private financial institutions.

Many if not most of the loan officers and fund managers charged with investing these funds at financial institutions are prevented by government regulation from taking on too much principal risk or currency risk. Fund managers at pension funds or life insurance companies operate under particularly tight regulatory constraints that have been enacted to protect pensioners and so on. Restrictions on principal risk mean fund managers cannot invest the entire sum in equities, the value of which could potentially fall to zero. Instead, they must invest a significant portion of their funds in loans or bonds that have a low probability of becoming worthless. Although they are not prohibited entirely from taking on principal or currency risk, they *are* prevented from assuming excessive risk. There is a huge amount of managed money subject to such restrictions in any country.

Fund managers face an extremely difficult situation in a balance sheet recession. They face huge inflows of funds because the private sector is saving and paying down debt, yet there are few attractive destinations for this money because the private sector as a whole is no longer borrowing.

The only remaining borrower that issues debt and carries no foreign exchange risk is the government with its fiscal deficits. As a result, fund managers responsible for investing the unborrowed savings have no alternative but to purchase government bonds. Most of this money therefore flows into the government bond market, sending bond prices sharply higher while yields plunge in spite of large and continuing deficits.

This phenomenon was first observed in Japan 20 years ago. At the time, orthodox proponents of fiscal consolidation insisted the Japanese government bond (JGB) market would crash in no time if the government continued to run such large fiscal deficits. Twenty-four years have passed since then and we are still nowhere close to that sort of situation. In fact, JGB prices rose and yields fell in spite of continued increases in the deficit and the public debt. Western hedge funds also engaged in targeted short-selling

of JGBs on numerous occasions because they saw the JGB market as a bubble ready to burst, but each time they failed spectacularly, incurring heavy losses in the process. The steep decline in JGB yields was not a bubble but rather a natural result of the balance sheet recession. Sweden also saw its 10-year government bond yield fall below 2 percent in 2011.

The same thing has happened in the United States and the United Kingdom since 2008. Yields on 10-year government debt fell below 2 percent at one point even though both countries were running massive fiscal and trade deficits. Although the central banks of these two countries were also buying, the key reason, as will be discussed in detail below, was that businesses and households in the United States and the United Kingdom had not only stopped borrowing money but were actually saving money despite near-zero interest rates.

Self-Corrective Mechanism for Economies in Balance Sheet Recessions

This phenomenon of government bond yields falling during a balance sheet recession is an essential component of the self-corrective mechanism that all economies possess. During such a recession the unborrowed savings of the private sector flow into the government bond market, pushing down bond yields. That makes it possible for the government to administer fiscal stimulus, thereby maintaining GDP and by extension private-sector incomes, which enables businesses and households to repair their balance sheets that much sooner. Once balance sheet repairs have been completed, the private sector can resume borrowing money, at which time interest rates will rise. That will be the signal for the government to proceed with its own balance sheet repairs via fiscal consolidation.

This self-corrective mechanism will function in any country outside the Eurozone. Unfortunately, Japan in 1997 and the United Kingdom in 2010 completely ignored the message being sent by the market in the form of ultra-low government bond yields. Instead they focused solely on the size of the deficit and chose to pursue fiscal consolidation. In 1997, Japan's government chose to engage in deficit-reduction efforts because so much attention had focused on the fact that the national debt was about to exceed Italy's as a percentage of GDP. But the policy debate at the time completely overlooked the fact that at the peak of Italy's fiscal deficits its government bonds were yielding 14 percent, whereas the yield on 10-year JGBs in 1997 was just 2.3 percent. The messages being sent by the two bond markets were telling us that the two countries suffered from entirely different problems. When Japan ignored that message and followed Italy down the path of deficit reduction, it fell into a devastating double-dip recession.

Many advocates of free-market economics have a tendency to suddenly turn communist when confronted with a fiscal deficit. In other words, they tend to focus solely on the size of the deficit and ignore its price—that is, the yield on government debt. But the reason why market economies function more effectively than the communist alternative is that they allow people to make decisions on the basis of both quantity and price. If quantity were the only criterion, we would experience the same kinds of problems as a planned economy that ignores the price mechanism.

Japan has also ignored the need for fiscal stimulus being signaled by ultra-low government bond yields on many occasions over the past 20 years, as have the United States and the United Kingdom since 2008 (Chapter 2 will discuss how this important signal has been lost under QE). However, there is nothing so dangerous as a government that tries to manage the economy while ignoring the market's most important message: government bond yields.

Balance sheet recession theory tells us that the deflationary gap in an economy facing such a recession is equal to the amount of private unborrowed savings. In other words, private financial institutions hold unborrowed savings equal to the amount of fiscal stimulus needed to stabilize the economy. Financing the fiscal deficits needed during a balance sheet recession will not be a problem as long as those savings flow into government debt.

These unborrowed savings (at a time of zero interest rates) are responsible for the weakness in the economy, and it is because the economy is so weak that fiscal stimulus is necessary. The savings go unborrowed because businesses and households respond to the burst bubble and resulting damage to their balance sheets by shifting priority from maximizing profit to minimizing debt. Hence there should be no difficulty financing fiscal deficits incurred for this reason—with the exception of countries in the Eurozone, as will be explained in a later chapter.

Two Types of Fiscal Deficits Require Different Responses

The discussion above suggests that there are two kinds of fiscal deficit: the ordinary variety, which leads to inflation, rising interest rates, and a misallocation of resources, and the kind that occurs during a balance sheet recession and does not cause interest rates to rise. These two types of fiscal deficit also have completely different characteristics. The first occurs as a result of government mismanagement, the second as a result of private sector mismanagement. But only the former is typically discussed in university economics classes. Here, the government runs a deficit for political reasons—sometimes to ensure its reelection—at a time when the private

sector is a willing borrower. The government ends up competing with the private sector for a limited supply of private savings, crowding out private investment and pushing inflation and interest rates higher. And if the government happens to use money less efficiently than the private sector, the allocation of limited resources will be distorted in proportion to the size of the fiscal deficit, with funds flowing to inefficient sectors. If the deficit is of this type, the government and voters should do everything they can to reduce it. By doing so they will improve the allocation of resources, keep inflation and interest rates in check, and enable more efficient economic growth led by the private sector.

Every few decades, however, the private sector loses all sense of discipline and becomes caught up in a bubble. Blinded by the prospect of quick profits, businesses and households borrow heavily and become increasingly leveraged in the belief that investments in certain assets are a sure thing. Once the bubble collapses and the dream ends, people come to their senses and realize they had been chasing a bubble and had bid asset prices up to unwarranted levels. As soon as they realize the prices they paid will not be coming back anytime soon, they begin the process of repairing their damaged balance sheets by deleveraging. The balance sheet recession starts the moment that businesses and households wake up to their mistake.

When the fiscal deficit increases because of economic weakness caused by this change in private behavior, the cause is not policy failures or greedy politicians but rather the private sector's willing participation in the bubble. It is a byproduct of the fact that once the bubble burst and they returned to their senses, they moved collectively to repair their balance sheets, as they should have.

In this type of recession, there is no reason for deficit-reduction efforts to succeed until the cause of those deficits—the damage to private balance sheets—is removed. If the government pursues fiscal consolidation during this period, the unborrowed savings of the private sector will increase, leading to further economic weakness. In that case the fiscal deficit may actually *increase*, as happened in Japan in 1997.

When the deficit is of this type, it is not particularly meaningful to talk about a misallocation of resources because if the government did not utilize those resources, they would simply go unemployed. And unemployment is the worst form of resource allocation.

How does one distinguish between the two varieties of fiscal deficit? The most convenient indicator outside the Eurozone is government bond yields. Other conditions being equal, a fiscal deficit that arises because of government mismanagement will send bond yields higher, while a deficit resulting from mismanagement in the private sector will push yields lower. The fact that—with the exception of a few countries in the Eurozone—government bond yields have fallen to historic lows following the bubble's

collapse demonstrates that the fiscal deficits in these countries were caused by errors in the private sector.

Fiscal Deficits Must Be Viewed Relative to Private Savings

The fact that businesses and households allowed the bubble to form and expand also demonstrates that the private sector is not always a more efficient allocator of resources than the government. In some cases, in fact, it may behave far more irresponsibly than any government. But economists—pointed exceptions including Hyman Minsky and Japan's Seki Obata²—have not seriously addressed the problem of asset bubbles. They continue to assume that the private sector always behaves correctly and that all fiscal deficits are bad.

As a result of this predisposition, most of the debate surrounding fiscal deficits has consisted of asking (1) how to minimize the deficit and (2) if it is in fact a necessary evil, whether the private sector has adequate savings to finance it. In other words, the policy debate always begins with the *size* of the deficit and how to reduce or finance what is by definition undesirable borrowing.

National policy debates regarding fiscal deficits have almost never asked how large a deficit must be to return unborrowed private savings to the economy's income stream. Because the vast majority of economists today assume the private sector always allocates resources efficiently and seeks to borrow money to maximize profits, they cannot conceive of a situation in which the private sector wants to minimize debt at a time of zero interest rates. Nor can they envision a fiscal deficit resulting from private sector mismanagement during a bubble.

It is this mindset that has created a world in which many people know the size of their nation's fiscal deficit or public debt, but only a fraction of a percent know how much the private sector is saving. Most have never seen that number nor even heard someone else mention it.

Many Spaniards and most people outside Spain with an interest in the nation's economy know the Spanish government is running a fiscal deficit worth 7.1 percent of GDP, but few are aware that Spain's private sector is saving 8.6 percent of GDP.

This ignorance of private sector savings is not a problem when the economy is not in a balance sheet recession and the private sector is investing its savings in textbook fashion. But it becomes a major problem in a balance sheet recession when the private sector as a group starts saving heavily

² Seki Obata, *Subete no Keizai wa Baburu ni Tsujiru* (Kobunsha: Tokyo, 2008).

in spite of zero interest rates. However, economists who never envisioned such a scenario continue to ignore the size and ramifications of excessive private savings, focusing instead on the size of fiscal deficits and arguing for deficit-reduction efforts.

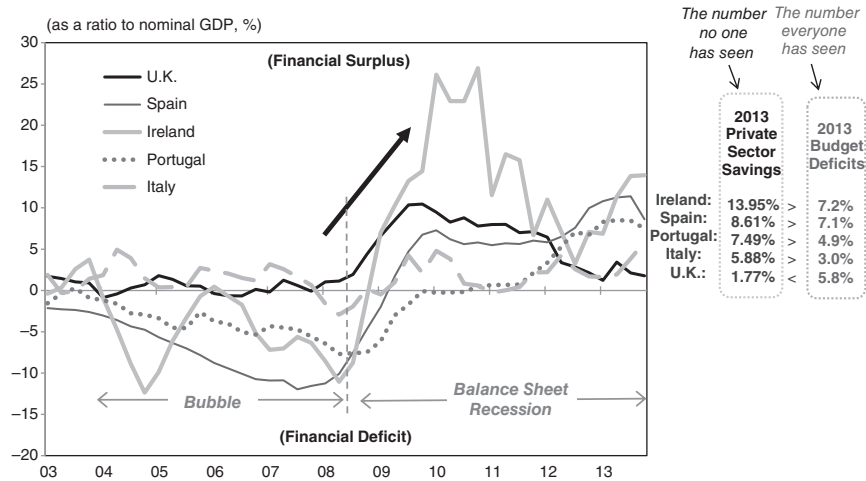
The question of whether a fiscal deficit is too large can only be answered in the context of private savings. Clamoring about the size of a deficit without knowing how much the private sector is saving makes no sense. If a government is running a fiscal deficit of 6 percent of GDP at a time when the private sector is saving 12 percent of GDP, the economy will fall into a deflationary spiral in which GDP contracts by 6 percent a year unless the difference can be made up with exports (that is, foreign borrowings). In that case, a fiscal deficit of 6 percent of GDP is actually too small to stabilize the economy, yet it would typically prompt economists and the media to call for deficit reduction—as happened in Japan in so many occasions. But if the private sector is saving more than 6 percent of GDP a year, the economy will not stabilize unless the government runs an even larger deficit.

This problem is particularly acute in the Eurozone where the Maastricht Treaty makes no allowance for balance sheet recessions. Chapter 5 will discuss this issue in greater detail, but the Treaty prohibits member countries from running fiscal deficits in excess of 3 percent of GDP, and the “fiscal compact” adopted in 2011 mandates various penalties in an attempt to strengthen enforcement of that cap. The problem is that private sectors in many Eurozone nations have been saving far in excess of 3 percent of GDP since 2008. Figure 1.18 shows what has been happening to the financial balance of private sector as a whole (households + nonfinancial corporations + financial institutions) in four Eurozone countries and the United Kingdom. It indicates that except for the United Kingdom recently, the private sectors of the other four Eurozone countries have been saving far more than the size of their budget deficits, even at near-zero interest rates. And all have fallen into destructive balance sheet recessions because the Treaty prevented the Eurozone governments from administering the only medicine that works in this kind of recession—fiscal stimulus. In the United Kingdom, it was the deliberate choice of the Cameron government not to put in the fiscal stimulus that led to its double-dip recession in 2011.

Consequences of Leaving Things Up to the Market in a Balance Sheet Recession

Many argue that instead of trying to support the economy with fiscal stimulus, the government should allow it to fall as far as it wants to fall. Wiping out distressed and zombie businesses, banks, and households, they say, will clean up the economy and hasten the eventual recovery.

FIGURE 1.18 Europe in Balance Sheet Recession: Eurozone Private Sector Savings Are Greater Than Their Governments' Fiscal Deficits



*Private Sector = Household Sector + Nonfinancial Corporate Sector + Financial Sector. *Note:* All entries are four-quarter moving averages. For the latest figures, four-quarter averages ending in 2013 Q4 are used. Budget deficits in Euro area in 2013 are from Apr. 23, 2014, release by Eurostat.

Sources: Eurostat; Office for National Statistics UK; Banco de España, National Statistics Institute, Spain; The Central Bank of Ireland, Central Statistics Office Ireland; Banco de Portugal; Banca d'Italia and Italian National Institute of Statistics.

In economics this is often referred to as the Austrian school, and it was espoused by many in Europe and the United States in the wake of the bankruptcy of Lehman Brothers and the global financial crisis (GFC). Most of its proponents were either university academics with ironclad job security or managers of so-called vulture funds seeking to acquire distressed assets for a song. In other words, they would either be unaffected by or would actually benefit from the policies they were advocating. But implementing such policies during a balance sheet recession would cause tremendous damage to the economy.

That was proved beyond the shadow of a doubt by Herbert Hoover's Treasury secretary, Andrew Mellon, who endorsed such policies with the famous words, "Liquidate labor, liquidate stocks, liquidate the farmers, liquidate real estate . . . it will purge the rottenness out of the system. . . Values will be adjusted, and enterprising people will pick up the wrecks. . . ." His approach caused U.S. GNP to plunge 46 percent from the 1929 peak and pushed urban unemployment up to 50 percent by 1933. Not even

Roosevelt's New Deal was sufficient to drag the U.S. economy out of the resulting morass; it took the astronomical fiscal stimulus necessitated by World War II to do that.

Even with these two massive doses of fiscal stimulus and additional military spending for the Korean conflict, it was not until 1959, nearly 30 years after the New York stock market crash, that U.S. interest rates returned to normal—that is, to the average level of the 1920s. In other words, it took that long for the private sector to regain its willingness to borrow.

Mellon's approach will not work during a balance sheet recession because the problem is far too big. If those whose balance sheets were impaired as a result of mistakes made during the bubble represent only a small portion of the broader economy, the Austrian approach is not only possible but may be preferable in certain cases—preferable in the sense that if those who participated in the bubble are punished, they are less likely to repeat their mistakes in the future.

For this approach to work, however, it is essential that only a small fraction of the economy be involved in the bubble. This group must be small enough that if they all went under, the economy would be capable of absorbing the loss and moving forward. If 5 percent are in trouble and the remaining 95 percent are healthy, the latter group should survive and return to health even if the 5 percent are removed in a surgical strike.

But if the ratios are reversed, with 95 percent in the distressed category and just 5 percent in the healthy group, this sort of approach would be entirely counterproductive.

The reason, once again, is fallacy-of-composition problems. If only one person liquidates his bad assets, the sale of those assets on the market is unlikely to create any problems. But if everyone does so at the same time, there will be no buyers. Asset prices will plunge, reducing the value of both the assets they had planned to sell and the assets that are still in their possession, further undermining their balance sheets. A nationwide drop in asset prices would also affect the balance sheets of potential buyers, drastically reducing their number.

Thus we can see the Austrian approach is valid only in cases where the distressed portion of the economy is quite small or in which the country itself is small and surrounded by foreign investors able and willing to buy its assets. If the economy is small enough that a sharp devaluation of the currency would not invite severe criticism from neighboring nations, temporary economic weakness caused by the surgical removal of bubble participants could probably be addressed to some extent by a devaluation and a corresponding rise in exports.

The financial crisis that occurred in the early 1990s in Nordic countries was quickly dealt with by national authorities. But that was possible only because a steep decline in the value of local currencies boosted external

demand enough to offset the decline in domestic demand. Riksbank governor Stefan Ingves said the sharp currency devaluation made things much easier for policymakers in the region.³

But when a significant portion of the domestic economy is caught up in the problems, or when the nation itself is fairly large, the use of Austrian methods can trigger a national or even a global depression as it did in the 1930s.

GFC Triggered by Insistence on Market Principles

Further proof of this was recently provided by the collapse of Lehman Brothers and the GFC that followed. In September 2008, in a meeting held at the New York Fed just before Lehman Brothers went under, U.S. Treasury secretary Hank Paulson declared that the government would not use taxpayer money to bail out the firm and that its fate would be left up to the market. Within 24 hours of that announcement the GFC had begun. Paulson, having insisted on the application of market principles in this case, was forced to come up with a plan to rescue insurer AIG on the very afternoon of the day that Lehman failed, and a month later he had to persuade taxpayers' representatives in Congress to provide \$700 billion in aid for the financial industry under the Troubled Assets Relief Program (TARP).

The decision to allow Lehman to fail had such massive consequences because so many other Western financial institutions were suffering from identical problems.

Most financial institutions at that time owned large amounts of collateralized debt obligations (CDOs) containing subprime mortgages, whose value had plunged. Fearing more failures, institutions became increasingly unwilling to lend to each other, which almost caused the interbank market to freeze up. Lehman's collapse also forced other firms with similar problems to rush en masse to protect themselves by building up cash reserves. Consequently, they stopped lending money to nonfinancial corporations and individuals. The resulting shutdown of the financial system was what triggered the synchronous GFC.

If Lehman had been the only firm holding toxic CDOs—that is, if 5 percent of the economy was distressed and 95 percent was sound—applying market principles and allowing the investment bank to fail would probably not have sparked a global crisis. But in September 2008 those ratios were

³ “Kensho Kiki wa Sattaka: Ri-man shokku 5 nen (14) Oshu ni Seiji no Fusakui, Ginko Kyusai, Kokka Shizumeru” *Nihon Keizai Shimbun*, December 1, 2013, p. 11.

reversed, with most Western financial institutions facing the same problems. Allowing one firm to go under caused the rest to rush to protect themselves, and the broader financial system experienced massive fallacy-of-composition problems.

Volcker Understood Systemic Crises

One man who understood this difference between the 5 percent and the 95 percent from the start and who used that understanding to rescue the global economy and financial system was former Federal Reserve chairman Paul Volcker. The U.S. financial system stood at the brink of complete collapse in August 1982, which may come as news to some readers.

The trigger was the Latin American debt crisis, which began when Mexico defaulted on its international obligations that month. Once bankers realized Mexico was in trouble, the contagion spread almost instantly throughout Latin America, affecting such countries as Argentina, Brazil, Chile, and Venezuela. Most leading U.S. banks that had lent heavily to the region suddenly found themselves facing technical insolvency.

Fortunately for both the United States and the world, Mr. Volcker understood from the outset that this was a problem affecting the 95 percent and not the 5 percent. Starting the Friday that Mexico defaulted, he announced a series of measures that successfully prevented the crisis from spreading to the United States or the global economy.

I remember the events of August 1982 well because I was in the thick of it as an economist at the New York Fed in charge of eurodollar syndicated loans, the principle vehicle by which American banks lent to Latin American countries. What I remember most clearly is how the Fed's attitude toward U.S. banks changed overnight. Until that Friday we had admonished U.S. lenders to reduce their exposure to these countries with their shaky economic fundamentals and military dictatorships. The New York Fed had been issuing these warnings for more than three years starting in 1979, but they had been completely ignored by U.S. banks.

But the day that Mexico validated our fears by defaulting, Mr. Volcker, who was at the Board in Washington, D.C., placed a call to the New York Fed and told us to make sure that not a single U.S. bank with exposure of more than one million dollars to Mexico pulled out of the country.

This marked a complete reversal of policy from a day earlier, when we were demanding that U.S. lenders reduce their exposure to Mexico. The Fed chairman, who had discovered that morning that Mexico was bankrupt, was effectively telling us to ask U.S. banks to continue lending to it. At first we were shocked by this directive, but we quickly realized this was a problem affecting the 95 percent and not the 5 percent, and we began asking banks to

keep lending to Mexico. It was only because of Volcker's sudden change of course that the Latin American debt crisis never caused any major problems and was eventually resolved without having to ask Congress for a taxpayer bailout.

Although the resolution process took more than 10 years, there was no credit crunch, and the vast majority of Americans were completely unaware that they were in the midst of a massive financial crisis that had left most of the large U.S. banks technically insolvent. Because neither Congress nor the media knew of nor made a big fuss over the problems, even many financial "experts," including academics, know very little about this crisis, which occurred in 1982. That only underscores the speed and validity of Mr. Volcker's response to the crisis and reminds us that there is one kind of approach for problems affecting the 5 percent and another for problems affecting the 95 percent.

Little to Be Gained from Bashing Those Who Have Already Come to Their Senses

The dichotomy between a 5 percent problem and a 95 percent problem is also the dichotomy between a mistake made by a handful of people and one made by the vast majority of people. If only a small group acted in error, they can rightfully be blamed for choosing the wrong path despite having other alternatives. But when 95 percent have made the same mistake, punishing them can shake society to its very foundations. All we can do is say the public made a collective error, hope it learns from the experience, and try to make sure the 5 percent who foresaw what was coming become leaders of society.

The very fact the economy is in a balance sheet recession is proof that people have come to their senses and acknowledged that they were chasing unsustainable asset prices. They would not be deleveraging if they thought bubble-peak prices were coming back soon. There is little to be gained from taking to task people who are aware of their mistakes and are trying to correct their behavior. And if the government stands by and does nothing as the economy falls into a deflationary spiral, even those who did not participate in the bubble will suffer tremendously.

The only people with the right to make the Austrian "liquidate!" argument are those who publicly warned in advance that the economy was in a dangerous bubble. Those who did not—and this includes well-known economists and pundits—did not have a correct understanding of the economy and to that extent are part of the problem and not part of the solution. Such individuals have no right to proclaim smugly that the economy should be allowed to fall until it can fall no further. If anything, these

individuals should be “liquidated” from their teaching positions until they have the correct model of the economy in their heads.

Recovery from Balance Sheet Recession Takes Time

Rescuing everyone takes time. In the Latin American debt crisis, it took more than 10 years before U.S. banks were truly healthy again. When the problem affects the majority of society, the burden cannot be shifted to another group—the only option is to wait for the entire society to get better. If the government decides to waive all debt for insolvent businesses and households, for example, the problem merely shifts to the entities that lent them the money, that is, banks and depositors.

In a balance sheet recession, the only option is to use fresh *flows* of savings to slowly repair balance sheets burdened by the *stock* of excessive debt. The greater the damage to balance sheets, the more time it takes to clean them up. If a company has a ¥10 billion hole in its balance sheet and can generate ¥2 billion a year in cash flow that can be used to pay down debt, for example, the repair process will take five years.

But as more firms embark on this process and start using a majority of their free cash flows to pay down debt, the recession worsens, squeezing cash flow and leading to further declines in the asset prices that triggered the recession in the first place. That is why the government—which is outside the fallacy-of-composition problems—has to proactively take the other side of the bet, so to speak, from the private sector and prevent a vicious cycle.

If the government makes the mistake of opting for fiscal consolidation, a recession that people expected would end in two to three years—like Japan’s in 1997—may persist for seven years, or 10. And if the Austrian approach is adopted under such conditions, the balance sheets of borrowers and lenders alike will collapse. Recovery will then require either astronomical fiscal stimulus or capital inflows from the sale of assets to foreigners.

Forward Guidance Important for Fiscal as Well as Monetary Policy

Much attention has focused on the importance of forward guidance in the monetary policy arena over the past few years. By announcing in advance that it will not raise interest rates for a specified period of time, the central bank reassures households and businesses and tries to persuade them to engage in the consumption or investment they had given up on because of concerns about an eventual rise in interest rates. This also represents the final hope for monetary policymakers when interest rates have already been lowered to zero and the limitations of quantitative easing are quickly

becoming apparent. As the Fed starts to wind down its QE program, policymakers hope that presenting a worried bond market with forward guidance—that is, pledging not to raise interest rates until some point in the future—will help to prevent turmoil.

Forward guidance for monetary policy will be discussed in detail in Chapter 2, but for now let it be said that this concept also applies to fiscal policy. After all, the question of how long a government will continue to support the economy with fiscal policy has a major bearing on the behavior of businesses and households being forced to undertake balance sheet adjustments.

Assume, for example, that the government announces it will continue to support the economy with fiscal policy this year and next but will embark on a program of fiscal consolidation after two years in an attempt to halve the fiscal deficit four years from now. People expecting their own balance sheet repairs to take another five years must find ways to protect themselves given the likely hit to the economy after the first two.

They might lose their jobs when the economy starts to weaken in the third year, or asset prices could fall further, making more balance sheet repairs necessary. The proper response for businesses and households would then be to scale back consumption or investment and boost savings during the first two years, which will undermine the effectiveness of the government's fiscal stimulus.

And if the economy actually does weaken three years from now, incomes will fall, asset prices will slide, and the originally anticipated five-year adjustment period will be stretched out to seven years, or perhaps 10. Not only will the recession be prolonged, but the cumulative fiscal deficit will increase. This is why inappropriate forward guidance on fiscal policy has significant adverse implications for both the government and the private sector during balance sheet recessions.

People will be much more confident about the future if the government pledges to support the economy with fiscal stimulus for five years, 10 years, or however many years it takes, urges the private sector to focus on cleaning up its balance sheet, and promises that repairs to the public balance sheet will be undertaken only after the private sector finishes its adjustments. That reduces the likelihood of further deterioration in the economy, which in turn lowers the possibility of a sharp fall in asset prices. People are also less likely to worry about losing their jobs.

In this case, the balance sheet adjustments initially expected to take five years might actually be completed on schedule. In that case, people can start thinking about what they should do five years from now today, which removes a large source of uncertainty from their lives and has positive implications for the economy.

In short, forward guidance on fiscal policy can have a tremendous impact during a balance sheet recession. Unfortunately, few policymakers—including those who recognize the risks posed by a balance sheet recession—understand this and put it into practice.

Even Fed chairman Ben Bernanke, who is well aware of the risks entailed by a balance sheet recession and issued strong warnings against premature fiscal consolidation in the phrase “fiscal cliff,” continues to say that fiscal consolidation will be required over the longer run. This may seem like the right thing and the responsible thing to say, but it can adversely affect the economy if the “short term” envisioned by Mr. Bernanke is shorter than the time people think it will take them to address their balance sheet problems.

The pledge to halve the deficit in four years was actually made by President Obama when he unveiled his first economic package soon after being inaugurated in 2009. While this \$787 billion fiscal stimulus was the right response to the circumstances in which the United States found itself following the Lehman collapse and the GFC, pledging to halve the deficit in four years was entirely counterproductive, since the U.S. economic recovery took far longer than anticipated by the White House. When fighting for re-election in 2012, President Obama was criticized repeatedly by his Republican opponent, Mitt Romney, for having failed to carry through on this pledge. As a result the contest was much closer than it might have been otherwise.

Fiscal Consolidation: Better Too Late Than Too Early

That begs the question of how long the government should support the economy with fiscal stimulus. Here we encounter a major technical problem. Because balance sheet recessions are so rare, there is little statistical data showing how much time an economy needs to recover from a balance sheet recession of a given severity. If there were numerous past instances of balance sheet recessions and statistical analysis showed a certain amount of time was generally required to repair the damage from the loss of a certain amount of national wealth following a burst bubble, the government would have a basis for saying when it would commence deficit-reduction efforts. But as yet there are no such data.

With no past data to rely on, governments are likely to take an overly optimistic view of the situation, partly for political reasons, which causes people facing balance sheet problems to suspect the government does not understand their problems. That, in turn, may prompt them to become even more cautious and pessimistic about the future.

How should the government deal with the uncertainty surrounding the time needed for balance sheet repairs? Simply put, it needs to err in the direction that will minimize costs in the event it is wrong.

In other words, the losses resulting from ending fiscal stimulus too soon should be compared with those resulting from ending it too late, and the government should choose the option resulting in the smaller loss. In practice, this means comparing the impact of discontinuing fiscal stimulus while the economy is still in a balance sheet recession with that of continuing it even after the recession is over.

In the first case, the economy will fall into a deflationary spiral, with income contracting from ¥1,000 to ¥900, from ¥900 to ¥810, and so on as the economy slips into a double-dip recession. The number of unemployed will rise sharply, asset prices will drop further, and ultimately the balance sheet recession will last far longer than initially anticipated. This is the sort of tragic outcome that followed premature attempts to reduce the deficit by Japan in 1997 and by the United States in 1937.

In the second instance, where fiscal stimulus is continued ever after the recession ends, the government continues to run large fiscal deficits in spite of the fact that the private sector is now trying to borrow money. The result in this case is inflation, higher interest rates, the crowding out of private investment, and the inefficient allocation of resources.

The damage in the former scenario is clearly far greater than in the latter. In the first case, the economy is plunged into a severe deflationary spiral accompanied by a sharp rise in unemployment. In the second instance, the worst-case scenario entails stagflation and less-than-ideal GDP growth rates, but no mass unemployment or poverty.

In practice, people forced to pay down debt because of balance sheet problems tend to experience a kind of debt-related trauma that acts as a psychological block to borrowing even after they have cleaned up their balance sheets. This aversion to debt, which is discussed in more detail in Chapter 4, is one of the problems that appears when an economy emerges from a balance sheet recession. And because of it the post-recession recovery in private loan demand is likely to be modest at best. The flip side to this is that the negative impact of any fiscal stimulus administered by the government in the recession's aftermath is also likely to be limited.

The above should make it clear that the damage from premature fiscal consolidation during a balance sheet recession is far more severe than the damage due to fiscal consolidation that comes too late. If the authorities are to be wrong, they should err on the side of ending fiscal consolidation too late rather than too early.

It was in 2011 that Ben Bernanke realized the risk of a delayed recovery and first mentioned forward guidance in the context of monetary policy. Initially he pledged not to raise rates until 2013. As he came to a better

understanding of the severity of the balance sheet problem, that threshold was moved back to 2014, and then to 2015.

These changes in the Fed's forward guidance for monetary policy are evidence of the authorities' lack of confidence in their estimates of the time needed for the private sector to repair its balance sheet. If they are unsure, fiscal stimulus should also be continued until 2015 at the earliest.

By pledging to begin raising rates in 2015, the Fed is saying it will have taken eight years for the U.S. economy to return to a normal footing from the peak of the housing bubble in 2007. In effect, it is acknowledging that a long time will be needed for the United States to pull out of its balance sheet recession. This is in sharp contrast to 2008, when U.S. policymakers and private opinion leaders alike were boasting the economy would be back to normal in two to three years because the United States would not repeat Japan's mistakes. Now they understand there are no policy shortcuts in a world of balance sheet recessions.

Three Points to Consider Regarding Costs for Future Generations

Another question that always comes up concerns Japan's large public debt—which currently stands at some 240 percent of GDP—and the burden it will place on future generations. Even those who understand the effectiveness of fiscal stimulus in treating a balance sheet recession hesitate to support it when told it may entail large costs for future generations. But that sort of hesitation is precisely why Japan's balance sheet recession lasted for more than 20 years.

While this concern about the cost to future generations is understandable, three things need to be kept in mind. First, there is no threshold for predicting at what point fiscal deficits will result in critical damage to an economy. Kenneth Rogoff and Carmen Reinhart (2011) argued that problems start to emerge when public debt exceeds 90 percent of GDP, but their analysis draws no distinction between balance sheet recessions, which are a borrower-side problem, and financial crises, which are a lender-side problem. Questions have also emerged about their methodology.

The United Kingdom had public debt equal to 250 percent of GDP in 1945, but that did not cause the nation to vanish from the global economic landscape. Had the British people refused to build more Spitfire fighters and Avro Lancaster bombers because of deficit concerns, Britain itself would have disappeared from the map and become part of Hitler's Third Reich. The public debt grew as large as it did because the nation had committed itself to defeating Hitler, and that was clearly the right decision.

A balance sheet recession represents the aftermath of major blunders made by the private sector during an asset price bubble, and the price for

treating the resulting injury is never small. But at the same time, it will take decades—or longer—for the next balance sheet recession of this magnitude to appear because people who have been caught up in one bubble will not make the same mistake again. The next balance sheet recession will not occur until people who experienced the last one have left this world, which gives the government plenty of time to put its fiscal house in order. Ten or 20 years may not be sufficient for Japan to reduce its debt to sustainable levels, but three or four decades should be enough if the deficit reduction policies are accompanied by proper growth enhancing measures. This point is discussed further in the section on Abenomics in Chapter 4.

Following a recovery from a balance sheet recession, any cyclical swings in the economy should be addressed using monetary policy, which regains its effectiveness once the private sector resumes borrowing.

A second point to keep in mind is that the legacy of fiscal stimulus for future generations includes positive elements—such as a sound economy—as well as negative ones like a higher public debt. It would be far preferable for a future generation to inherit an economy that is recovering because adequate treatment had been provided—even if that meant a large increase in the public debt—than to receive one that had no added debt but was on the verge of collapse because it was still bleeding from an open wound.

To better understand this point, consider the Great Depression in the United States. We will call people born before 1933 Generation A (the current generation) and those born subsequently Generation B (future generations). When Generation A confronted a severe balance sheet recession, Herbert Hoover rejected the use of fiscal stimulus to support economic activity. Because the government refused to increase fiscal expenditures, it did not leave a heavy debt burden for the next generation (the budget deficit actually increased in 1932, Hoover's last year in office, because of higher government expenditures, but for the purposes of this argument it will be assumed that no debt was left behind). In return, Generation A bequeathed to Generation B an economy that was in the midst of the Great Depression. The nationwide unemployment rate was more than 25 percent—and easily exceeded 50 percent in urban areas—and GNP had fallen to half of the 1929 peak.

To treat this gaping wound Generation B was forced to engage in massive public works spending that started with the New Deal. The fiscal deficit eventually grew to more than 30 percent of GNP in 1944. During the Great Depression, poverty prevented millions of young people from going to school and forced them to look for work instead. The life plans of these young people—the “next generation”—were effectively destroyed by the policy decisions of the Hoover administration with its insistence on balanced budgets. Without World War II and the massive fiscal expenditures it entailed, the Great Depression might have dragged on even longer,

destroying educational and vocational opportunities for subsequent generations. The ultimate burden borne by Generation B would almost certainly have been smaller and less painful if Generation A had prevented the wound from widening by using fiscal stimulus to sustain economic activity at around 1929 levels, just as Japan did 60 years later. Having to redeem government bonds issued by Generation A would have been a far better outcome if those fiscal outlays had prevented an economic collapse.

Japan Had a Shot at Full Recovery in 1996 . . .

A third point to keep in mind is that attempts to reduce the fiscal deficit in a balance sheet recession are unlikely to succeed. Fiscal expenditures are the only thing preventing such an economy from falling into a deflationary spiral, and once the government abandons that role the risk is that the economy will suddenly collapse, as it did in the United States in 1937 and in Japan in 1997. Tax revenues will then plummet, which may push the deficit higher in spite of the government's intentions.

In 1996, the year before the Hashimoto government embarked on its ill-fated deficit-reduction program, Japan posted G7-leading GDP growth of 4.4 percent in real terms. Asset strippers from New York and overseas Chinese investors from Hong Kong and elsewhere were visiting Tokyo late that year in search of commercial real estate deals. They were drawn by the fact that Japanese real estate prices had plunged while rents had remained fairly stable, resulting in yields that were attractive on a global basis. Had the government not embarked on fiscal consolidation in 1997, the previous year's GDP momentum might well have continued while domestic asset prices bottomed on buying by foreign investors.

In the event, however, the Hashimoto government's tax hikes and spending cuts caused the economy to buckle. Output shrank for five straight quarters, preventing foreign investors from doing due diligence on the investment properties they were considering. In this process, the potential buyer carefully estimates a property's future revenues and costs in a bid to determine whether the investment is worth making. The economic meltdown made it impossible for investors to project future revenue streams, effectively preventing them from doing their due diligence. The flight of these foreign investors from Japan coincided with the disastrous economic slump to spur a renewed decline in asset prices. In the end, commercial real estate fell another 53 percent from the levels of 1997, striking a huge blow to private sector balance sheets across the country.

A look at the land price graph in Figure 1.12 shows a clear change in the trend around 1997. Real estate prices in 1997 were down sharply from the peak, but as Figure 1.12 illustrates they were still at the level of 1985, a

year before the bubble began. This means businesses and households that had not participated in the bubble were largely unaffected. Had land prices stabilized there, most Japanese businesses would have been able to absorb the associated losses and still engage in forward-looking activity. In effect, they would simply have given back the paper gains accumulated during the bubble years.

But the 53 percent fall in land prices from 1997 levels took property prices back to where they had been in 1973. The vast majority of Japan's private sector—the only exception being debt-free businesses and households—now faced major balance sheet problems.

If Japan's "Generation A" had not opted for fiscal consolidation in 1997, Generation B would have enjoyed a higher standard of living with smaller fiscal deficits. Japan's fiscal deficits could well have remained around the 1996 level of ¥22 trillion, in which case the cumulative debt taken on by the government starting in 1997 would have been at least ¥100 trillion less than it is today as shown in Figure 1.17. Moreover, the economy might have been far healthier and stronger than it is today. Were it not for this policy misstep in 1997, the Japanese economy might have fully emerged from the balance sheet recession around 2000. In that sense, the problems Japan faced after 1997 were—like those of the United States after its premature attempt at deficit reduction in 1937—entirely unnecessary.

Proponents of fiscal consolidation always warn against leaving loans for our children to repay, but the example above demonstrates that attempts to reduce the fiscal deficit during a balance sheet recession are only likely to enfeeble the economy and may actually increase the deficit.

Economists have had many debates on fiscal deficits, but few of these debates have considered the health of the economy left to the next generation. Not surprisingly, their conclusion is almost always biased in favor of reducing deficits. The glaring absence of balance sheet recessions from orthodox economics has also made economists reluctant to recommend the one medicine that can treat this kind of recession—fiscal stimulus.

Conflation of Balance Sheet and Structural Problems Extends Recession

When an economy does not respond to standard monetary accommodation and fiscal stimulus is unable to prime the pump, many pundits will blame structural problems and argue that structural reforms are needed. Balance sheet recessions are often confused with structural problems because neither responds to traditional macroeconomic policies. As a result, economists and the media tend to attribute what are actually balance sheet recessions to structural problems. They do so because there has been so much

discussion of structural problems since the Reagan and Thatcher era of the 1980s, while until recently only a handful of economists outside Japan had ever heard of balance sheet problems. There is consequently a tendency for orthodox economists to blame “structural problems” when standard monetary or fiscal policy fails to produce the expected recovery.

Structural problems were in fact at the root of many of the issues that confronted Reagan and Thatcher in the 1980s: a labor market plagued by frequent strikes, a steady decline in the quality of manufactured products, inflation, trade deficits, and high interest rates. The supply-side reforms they championed were the right response to those conditions.

Their mistake, however, was to view microeconomic structural reforms as being part of macroeconomic policy. The Reagan reforms were initially rolled out as part of an economic package intended to give an immediate jolt to the economy. Reagan famously used the Laffer curve, which illustrates the relationship between tax rates and tax revenues, to argue that if people were given \$50 they would quickly spend it and boost the economy in the process. However, the Reagan administration did not realize that microeconomic structural reforms take a decade or even longer to produce results.

It was not until the Clinton era that Reagan’s supply-side reforms began to bear fruit. The economy muddled through Reagan’s eight years in office and George H.W. Bush’s four, and despite major diplomatic triumphs like the end of the Cold War the Republicans were eventually pushed out of the White House by a young Bill Clinton who proclaimed, “It’s the economy, stupid!” Clearly, the Republicans’ supply-side reforms did not have the anticipated effect on the economy in the short to medium term.

The impact of the Reagan reforms began to be felt during the eight years of the Clinton administration, when the economy picked up along with startup activity, particularly in the IT sector, and long years of budget deficits gave way to fiscal surpluses.

Ryutaro Hashimoto in 1997 repeated Reagan’s mistake of treating supply-side reforms as macroeconomic policy, and what is worse, he did so during a balance sheet recession. While he knew fiscal consolidation would take a toll on the economy, he thought the adverse impact could be neutralized by the accompanying structural reforms. The government even released estimates showing how many jobs would be created by the six proposed reforms.

Treasury secretary Lawrence Summers in the United States and I⁴ strongly opposed the Hashimoto government’s proposals because both of us

⁴ Richard Koo and Shigeru Fujita, “Zaisei-saiken no Jiki wa Shijo ni Kike: Zaisei-saiken ka Keiki-kaifuku ka” *Shukan Toyo Keizai*, February 8, 1997, pp. 52–59.

remembered the bitter experience of the Reagan administration, which had also argued that supply-side reforms would lift the economy quickly. But in the end we were ignored. The Japanese economy shrank for five straight quarters, tax revenues fell, and Japan's budget deficit actually increased by 72 percent.

The experiences of Japan and the United States should make it clear that structural reforms cannot serve as a substitute for macroeconomic policy. Unfortunately, few understand this or are trying to warn against it. In fact, "structural reforms" sound so appealing to most policymakers and pundits that in the Eurozone, which is suffering from a serious balance sheet recession, the policy debate has focused almost entirely on such reforms while ignoring macroeconomic policy, much like Japan during the Hashimoto and Koizumi administrations.

The Koizumi government completely ignored the fact that Japan was in a balance sheet recession and pushed ahead with the slogan that there could be "no economic recovery without structural reform." But there was to be no recovery *with* structural reform, either. The only thing that increased during the Koizumi era, in the words of one newspaper, were the fees paid to directors at the now-privatized Japan Highway Public Corporation.

The structural reforms championed by German Prime Minister Gerhard Schroeder in the first half of the 2000s under the moniker Agenda 2010 also mistook balance sheet problems for structural problems. The German economy was actually suffering from a serious balance sheet recession following the collapse of the IT bubble in 2000, as will be discussed in Chapter 5. But it was diagnosed as having structural problems because it did not respond to the ECB's monetary easing. Numerous structural reforms failed to lift the economy out of its slump, to the extent that Germany came to be known as the "sick man of Europe." The Japanese authorities in 1997, the German authorities in 2005, and the Eurozone authorities today were unaware that the distressed private sector had become a huge net saver in spite of record low interest rates, and they did not understand the dangers that posed.

Structural problems are of an entirely different nature from balance sheet problems. The former must be addressed with microeconomic reforms in the labor market and elsewhere, while the latter require the continuous application of fiscal stimulus. The problems in an economy suffering balance sheet problems will snowball unless the government quickly and effectively borrows and spends the unborrowed savings of the private sector with fiscal stimulus. Structural problems, in contrast, gradually sap the economy's vitality over an extended period of time.

Many countries today face both kinds of problems. In such cases it is necessary to treat the balance sheet problems first and then move on to the structural issues because the former can destroy the economy very quickly.

Reversing this order can have devastating consequences. Yet few nations, including the European countries, seem to realize they are in a balance sheet recession, and as a result they continue to administer the wrong kind of treatment.

The difference between structural problems and balance sheet problems is like the difference between diabetes and pneumonia. Structural reforms are essentially a means of treating the diabetes. The patient must be kept from getting too much nourishment and must exercise more to achieve long-term improvements in his physical condition. A balance sheet recession, on the other hand, is like pneumonia. Left untreated, it can cause a sudden and dangerous deterioration in the patient's condition. The patient can actually die unless properly looked after in the first three days.

Not only do these two diseases sometimes occur simultaneously, but their treatments are incompatible. A diabetic needs to eat less, while a patient with pneumonia needs sufficient nutrition to fight off the disease. Since the treatments are not only different but also contradictory, the attending physician must decide which to deal with first. The obvious answer is pneumonia, which requires immediate treatment. There will be plenty of time afterwards to attend to the diabetes.

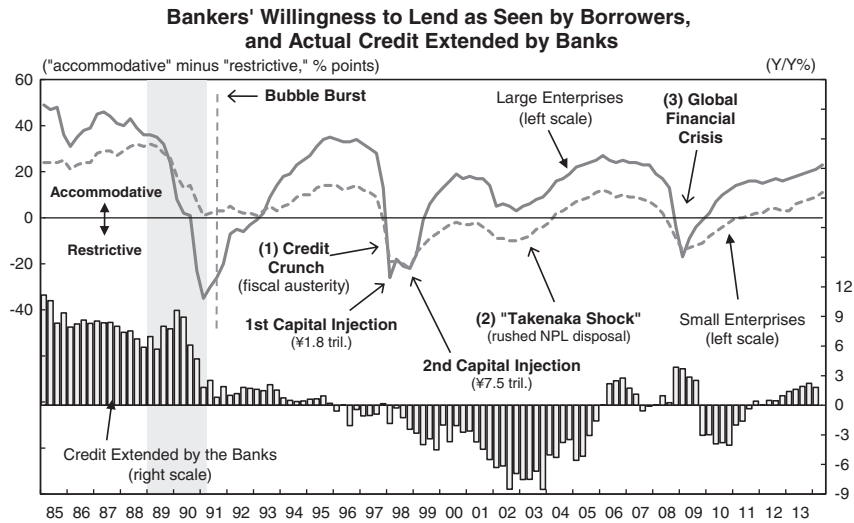
Distinguishing Balance Sheet Recessions from Structural Problems and Financial Crises

How do we distinguish between balance sheet problems and structural problems? Outside of the Eurozone the quickest indicator is interest rates, and particularly the yields on government debt. Interest rates fall sharply in a balance sheet recession, which is triggered by a shortage of borrowers. The lack of borrowers also means slow growth in the money supply and even slower growth in credit. That, together with the shortfall in aggregate demand, means the inflation rate is likely to be much lower in economies suffering from balance sheet recessions than in those suffering from structural problems.

In the Eurozone, however, government bond yields may not always respond correctly for the reasons described in Chapter 5, so they must be employed in combination with the ECB's policy rate and the flow-of-funds data used in this book. When a private sector is running a financial surplus in spite of very low policy or deposit rates, that is a strong indication the economy is in a balance sheet recession.

There will be times, however, when the private sector ends up in financial surplus because bad loan problems have left banks unable to lend. This is a financial crisis, which stems from problems at lenders, as opposed to a balance sheet recession, which is caused by problems on

FIGURE 1.19 Except for Three Occasions, Post-1990 Japanese Banks Prove to Be Willing Lenders



Note: Shaded areas indicate periods of BOJ monetary tightening.

Source: BOJ, Tankan, “Loans and Discounts Outstanding by Sector.”

the borrower side. The distinction between these two problems is easy to draw because loan rates (as opposed to policy rates) rise sharply during a financial crisis.

In the case of Japan, the question of whether the main cause of the recession is insufficient demand for funds or insufficient supply is easy to answer, as the Bank of Japan collects information about bank lending attitudes from 10,000 corporate borrowers, including small businesses, in its quarterly *Tankan* survey.

A comparison of these data with bank borrowing by Japanese enterprises (Figure 1.19) shows that banks have been willing lenders except for the brief credit crunch in 1997 and 1998, but businesses chose not to borrow because of balance sheet problems. Other central banks should take this opportunity to launch their own surveys similar to the “lending attitude of financial institutions” question in the BOJ’s *Tankan*. These data are extremely useful in determining whether the problem is at the lenders or the borrowers.

Countries that do not periodically carry out a comprehensive survey of borrowers like the *Tankan* need to look at the divergence between the policy rate and bank lending rates, whether foreign banks are entering or leaving the market, corporate bond market trends (since bond issuance can

serve as a substitute for bank financing), and surveys of market participants to determine whether the problems are at the borrowers or the lenders.

If the spread between the policy rate and bank lending rate is widening, if foreign banks are expanding their operations, and if bond issuance is increasing, chances are high that the economy is suffering from lender-side problems. But if the spread is narrowing, foreign banks are leaving, and bond issuance is falling, chances are high that the economy is suffering from borrower-side problems, that is, a balance sheet recession.

Democracies Are Ill-Equipped for Dealing with Balance Sheet Recessions

Exacerbating this characteristic of balance sheet recessions—the long time required for recovery—is the fact that democracies are ill-prepared for dealing with such recessions. People must act based on a strong sense of personal responsibility and self-reliance for a democracy to function properly. But this principle runs counter to the use of fiscal stimulus, which involves depending on “big government” and waiting for a recovery. During a balance sheet recession, people with sound balance sheets will vociferously object to fiscal stimulus and with it the implications of big government, especially once they learn that the stimulus will help rescue people and institutions that participated in the bubble.

Moreover, traditional university economics courses do not even discuss the possibility of a balance sheet recession. As a result, most people are not aware that this kind of recession is triggered by fallacy-of-composition problems that occur when individuals begin doing the right and responsible thing by repairing their balance sheets. When the government tries to administer fiscal stimulus under these conditions, the media, pundits, and ordinary citizens who do not understand balance sheet recessions are quick to argue that politicians are wasting taxpayer money on useless projects to win reelection.

For the past 20 years the Japanese media have self-righteously and almost reflexively equated fiscal stimulus with pork-barrel politics. In the United States, members of the Tea Party, the Republican Party splinter group that has become so influential, have effectively staked their political careers on preventing the federal government from undertaking fiscal stimulus. German Chancellor Angela Merkel’s decision to ram through a fiscal compact calling on all Eurozone countries to follow Germany’s example and pursue fiscal consolidation was based on a similar philosophy.

These responses are rooted in false diagnoses of an economic sickness by doctors who think there is only one kind of recession and only one kind of deficit and who have never heard of balance sheet recessions. Since this

type of recession is not covered by economic courses offered at universities, it is difficult to convince these people of the need for fiscal stimulus.

Keynes Also Overlooked Private-Sector Debt Minimization

In 2009 I was invited to Cambridge University to give a speech in an auditorium called Keynes Hall where Keynes himself had taught. I said during the address that “it is almost impossible to maintain fiscal stimulus in a democracy during peacetime.” Afterwards an older gentleman who was a professor at the university approached the lectern and said, “In 1940, Keynes stood exactly where you are standing right now and said exactly what you just said.” In other words, Keynes faced the same problem we do today when he urged the use of fiscal stimulus during the Great Depression.

After the massive fiscal stimulus associated with World War II led to quick recoveries in the world’s economies, Keynes’ theories came to be featured in every economics textbook. Unfortunately, as I pointed out in *The Holy Grail of Macroeconomics: Lessons from Japan’s Great Recession*, Keynes himself did not realize that the Great Depression had been triggered by the private sector’s decision to minimize debt. Keynes was unable to free himself from the traditional assumption that the private sector always seeks to maximize profit, and because he tried to explain the Great Depression within that framework by invoking concepts such as the marginal efficiency of capital, he completely overlooked the possibility that a private sector burdened with balance sheet problems would choose instead to minimize debt. Consequently, his *General Theory*, published in 1936, did not note that the fiscal stimulus Keynes himself was proposing should be implemented only when the private sector was seeking to minimize debt (what I called the “Yin” phase in *The Holy Grail*).

Because this critical condition for fiscal stimulus was omitted, postwar economists assumed that Keynes’ fiscal stimulus would be effective in treating all recessions, and from the 1940s to the early 1970s, the United States and other governments used fiscal stimulus to fine-tune their economies. However, their expectations were ultimately betrayed as the 1970s brought inflation, high interest rates, and a misallocation of resources under big government. Keynes’ star fell as a result.

This outcome can be explained as follows. The United States and the United Kingdom spent astronomical sums of money to procure armaments during World War II, which quickly enabled the private sector to clean up its balance sheet. During wartime the government placed large orders with firms with technical know-how to supply needed equipment regardless of the state of their balance sheets. A company asked by the government to build 3,000 fighter planes as quickly as possible would need to borrow

money and invest in facilities no matter what its balance sheet looked like. Presented with such a large order from the government, however, banks would suddenly be willing to lend, sparking a virtuous cycle. And the cash flow generated by that order would enable the business to clean up its balance sheet. By late 1950, the private sector had also begun to borrow money (what I called the textbook or “Yang” phase).

But while the private sector soon completed its balance sheet repairs, governments maintained an activist fiscal policy long after the war ended, eventually bringing about the undesirable side effects noted above.

I used the word “peacetime” in my speech at Cambridge because during war, when a nation’s survival is at stake, no one complains about government spending on armaments or air-raid shelters. There is no danger of getting bogged down in endless debates over how to spend the money either, because the answer to the question during wartime is clear to all involved.

I used the word “democracy” because in an autocratic state, only one person, the dictator, needs to be persuaded in order to both administer and maintain fiscal stimulus. But in a democracy such policies cannot be implemented and maintained during peacetime unless tens of millions of people understand the need for fiscal stimulus.

Adolf Hitler and Franklin Roosevelt were both elected in 1933 when Germany and the United States were in severe balance sheet recessions. The German unemployment rate reached 28 percent that year and U.S. rate was not that far behind at 25 percent. Although both began to address the problem with fiscal stimulus, Roosevelt, worried about the criticisms from deficit hawks, reversed course in 1937, resulting in a serious double-dip recession and unemployment rate increasing to nearly 20 percent again. Hitler, on the other hand, stayed the course and by 1938, German unemployment had fallen to 2 percent. And nothing is worse than a dictator with a wrong agenda having the right economic policy, especially when the democracies around him are held hostage to orthodox policies and remain unable to implement correct policies.

More recently, the Chinese government implemented a 4 trillion RMB fiscal stimulus in November 2008 when it was facing a sharp fall in both domestic asset prices and exports. As a percentage of GDP, the stimulus was more than double the size of President Barak Obama’s \$787 billion package unleashed three months later. At that time, Western observers were laughing when the Chinese government announced that it was going to maintain 8 percent growth. China’s growth soon reached 12 percent in 1Q 2010, and nobody was laughing.

The U.S. government, on the other hand, was extremely cautious with its fiscal stimulus because of the fear that the stimulus package might be criticized for wasting money. As a result, it could not offer the kind of

positive jolt its designers had hoped for. The Obama Administration's inability to renew and sustain the fiscal stimulus package due to Republican opposition slowed down the subsequent U.S. recovery in no small way.

I used the word "maintaining" in my speech in Keynes Hall because expectations for (temporary) fiscal stimulus arise whenever a country experiences a major shock (like the Lehman failure and the GFC). At the emergency G20 meeting held in Washington two months after Lehman Brothers collapsed, all 20 nations agreed to administer a dose of fiscal stimulus—a decision attributable in no small part to the efforts of Japanese prime minister Taro Aso. Formerly a corporate executive, Aso was one of the few Japanese politicians who understood from the beginning that Japan was in a balance sheet recession. He knew that fiscal stimulus was the key to maintaining Japanese GDP when the private sector was saving 8 percent of GDP at zero interest rates. And at the G20 meeting he used the graph in Figure 1.14 to tell the leaders of the other 19 countries that Japan was able to maintain its GDP at above the bubble peak for the entire post-bubble period with fiscal stimulus in spite of commercial real estate prices falling 87 percent from the peak to the level of 1973. He argued that the global economic slump triggered by the Lehman failure could be reversed with the application of fiscal stimulus by the entire G20.

The G20 ultimately agreed to and administered fiscal stimulus in 2009, and the global economy staged a V-shaped recovery instead of falling into a depression, as had been feared. In that sense, Japan's experience contributed to the global economic rebound. But as soon as the economy started to show signs of life, deficit hawks took over the G20 policy debate. When a country faces a balance sheet recession in peacetime, expectations for fiscal stimulus pick up when the economy weakens, but as soon as the economy starts to show signs of life there are calls to reduce the deficit. If the government tries to trim the deficit when the private sector is minimizing debt, the economy will weaken again, prompting renewed demands for fiscal stimulus. As a result, fiscal stimulus during a balance sheet recession in peacetime tends to be an on-again, off-again affair that greatly delays the recovery.

Those Who Prevent Crises Never Become Heroes

That Japan was able to maintain GDP at the bubble-era peak for so long in spite of the loss of so much national wealth and a private sector that was collectively paying down debt offers an important lesson. Japan demonstrated that no matter how large the bubble and how extensive the damage to private balance sheets, the continuous administration of fiscal stimulus from the beginning in sufficient quantities can sustain incomes, enabling

people to press ahead with balance sheet repairs. This represents a huge improvement over previous bubble collapses, which almost without exception triggered a depression or depression-like conditions that lasted for many years.

The Japanese media, however, did not understand the significance of Aso's contribution in preventing a global depression. Instead, they tried to portray his administration as a caretaker government before the general election scheduled for 2009 and devoted a great deal of coverage to the prime minister's misreading of a single Chinese character in one speech. Partly as a result of such publicity, the LDP was defeated in the election held in August 2009. British prime minister Gordon Brown, another leader who understood what a balance sheet recession was and used fiscal stimulus to address it, was also defeated in his quest for re-election.

It is often said that people who prevent crises never become heroes, and the experience of Aso and Brown bears that out. Hollywood teaches us that for there to be a hero there must first be a crisis. When Aso and Brown, both of whom *prevented* crises, were removed from office, the G20 lost the only people able to explain the need for fiscal stimulus during a balance sheet recession.

Democracy Plus Balance Sheet Recession Equals “Secular Stagnation”

The global fiscal stimulus carried out in 2009 helped stabilize the world's economy. But that very success elicited calls in Japan and elsewhere for orthodox deficit-reduction efforts. And at the Toronto summit in 2010, with Aso and Brown now out of the picture, the G20 leaders agreed on a plan to halve their fiscal deficits in three years—this in spite of the fact that the private sectors in these countries continued to save massively in order to repair their severely damaged balance sheets.

The resulting fiscal retrenchment sent the developed economies into reverse, with the United Kingdom and many parts of Eurozone falling into double-dip recessions. Japan under the new Democratic Party of Japan (DPJ) government, which understood nothing of balance sheet recessions, stagnated as well.

In the United States, however, Fed chairman Ben Bernanke and others soon realized that this agreement had been a mistake. Bernanke kept the United States from pursuing premature fiscal consolidation by coining the expression “fiscal cliff,” thereby making it the first country to renege on the agreement. Consequently, the United States—alone among the developed economies—continued to post modest economic growth, while

Japan, the United Kingdom, and continental Europe faced severe economic weakness.

Partly because of subsequent reflection on this error, the pendulum had swung back toward a recognition of the importance of fiscal stimulus by the time the St. Petersburg G20 summit was held in 2013, exactly three years after the Toronto meeting. Even the *Nikkei* ran a front-page story noting that “the official statement expressed the view that the global economy recovery was too weak, and the major economies agreed unanimously to focus on restoring growth instead of reducing fiscal deficits.” Although the three years following the Toronto summit were completely wasted from a global economic perspective, at least these countries are now heading in the right direction. The risk remains, however, that this will turn out to be just another phase in an on-again, off-again cycle of fiscal stimulus in a democracy during peacetime.

The above examples show that there is no need to suffer stagnation even if the private sector is minimizing debt if proper policies are put in place, but that democracies are very bad at implementing such policies during peacetime. This predicament will stay with democracies until the general public (the tens of millions) is made aware of the fallacy-of-composition problem called balance sheet recession and how to remedy it. Until then, the far-from-ideal on-again, off-again cycle of fiscal stimulus and the resultant delayed recovery will make people feel as though they are in “secular stagnation.”

Appendix to Chapter 1: Summary of Yin and Yang Phases of Economy

The fact that the private sector could be minimizing debt when faced with daunting balance sheet problems suggests that there are at least two phases to an economy, a normal phase where the private sector has a healthy balance sheet and is maximizing profits, and a balance sheet recession phase where it is minimizing debt. I called the former the “Yang” phase and the latter the “Yin” phase in my previous book, *The Holy Grail of Macroeconomics*.⁵ I argued there that the Yin phase is the long-overlooked other half of macroeconomics. Readers interested in that discussion are invited to take a look at Chapter 5 of that book. For convenience, charts summarizing that chapter are reproduced here as Figures 1.20 and 1.21.

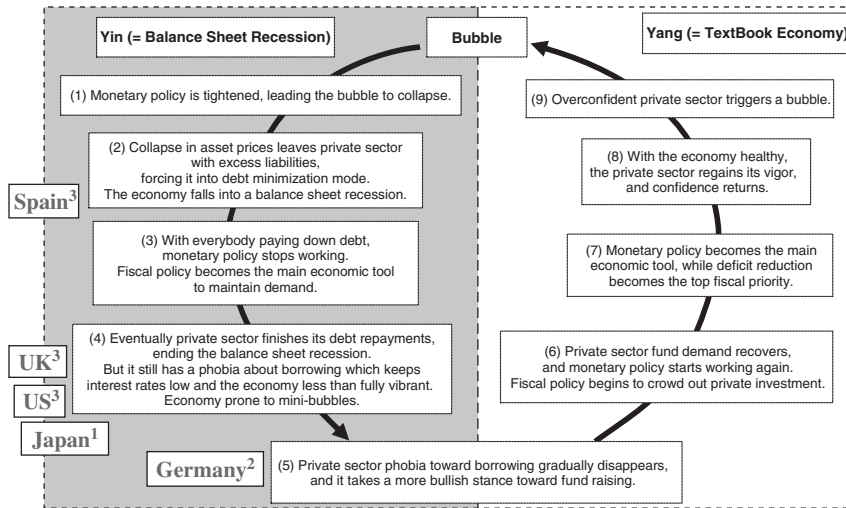
⁵ This Yin and Yang cycle is basically similar to what Bank for International Settlements (BIS) calls “financial cycle” in the 2014 Annual Report.

FIGURE 1.20 Contrast between Textbook Economy and Balance Sheet Recession

	Textbook Economy "Yang"	Balance Sheet Recession "Yin"
1) Fundamental driver	Adam Smith's "invisible hand"	Fallacy of composition
2) Private financial condition	Assets > Liabilities	Assets < Liabilities
3) Behavioral principle	Profit maximization	Debt minimization
4) Outcome	Greatest good for greatest number	Depression if left unattended
5) Monetary policy	Effective	Ineffective (liquidity trap)
6) Fiscal policy	Counterproductive (crowding-out)	Effective
7) Prices	Inflationary	Deflationary
8) Interest rates	Normal	Very low
9) Savings	Virtue	Vice (paradox of thrift)
10) Remedy for Banking Crisis	a) Localized	Quick NPL disposal Pursue accountability
	b) Systemic	Slow NPL disposal Fat spread Gov. capital injection

Source: Richard Koo, *The Holy Grail of Macroeconomics: Lessons from Japan's Great Recession* (Singapore: John Wiley & Sons, 2008, p. 176).

FIGURE 1.21 Yin-Yang Cycle of Bubbles and Balance Sheet Recessions



Notes: 1. Recovering from 1990 Heisei bubble. 2. Recovering from 2000 IT bubble. 3. Recovering from 2008 housing bubble.

Source: Richard Koo, *The Holy Grail of Macroeconomics: Lessons from Japan's Great Recession* (Singapore: John Wiley & Sons, 2008, p. 160).

