Excerpt from **Meltdown** by Tom Woods

CHAPTER 4

HOW GOVERNMENT CAUSES THE BOOM-BUST BUSINESS CYCLE

We take it for granted as a fact of economic life: plush times inevitably give way to lean times, and back and forth in an endless cycle. Just as the moon waxes and wanes and the tides ebb and flow, the economy goes through booms and busts.

The median home price across all U.S. cities increased by 150 percent from August of 1998 until August of 2006. Over the next two years, home prices fell by 23 percent.[1] Foreclosures and defaults skyrocketed.

The stock market has followed a similar course. When the New York Stock Exchange closed on October 9, 2007, the Dow Jones Industrial Average was 14,164.53, the highest close ever. Thirteen months later, on November 20,2008, it closed at 7,552.29, a drop of 46.7 percent.

Busts always bring with them some personal pain. This time, the pain is more visible than usual. Retirement portfolios have been eviscerated. Unemployment has increased. By November 2008, unemployment was up to 6.7 percent. When the figures are compiled the way government calculated them in the 1970s (before it started massaging the data to make the employment picture look prettier) the unemployment rate in November was an astonishing 16.7 percent.[2]

The personal dimensions of these busts are always used to justify government intervention, whether creating a "safety net" or drawing up new regulations aimed at smoothing out the cycle that is supposedly inherent in the free market.

But is this really so inevitable? Is the market economy really prone to such sudden and inexplicable episodes of massive business error, or could something outside the market be causing it? This is not just an academic question. The American people, currently suffering as a falling tide lowers all boats, need and deserve the answer.

As politicians and our media drones talk about what to do next, they promise us ways to prevent another meltdown like the one we're suffering through now. If they're going to come close to succeeding, they need to understand the causes of the business cycle. What causes these violent swings?

If politicians are thorough and honest in seeking out a culprit, they aren't going to be pleased with what they find at the end of the trail of crumbs. It's not "capitalism." It's not "greed." It's not "deregulation." It's an institution created by government itself.

"Cluster of errors"

No one is surprised when a business has to close its doors. Businesses come and go all the time. Entrepreneurs are not infallible, and they sometimes make poor forecasts of consumer demand. They may have miscalculated their costs of production, failed to anticipate the pattern of consumer tastes, underestimated the resources necessary to comply with ever-changing government regulation, or made any number of other errors. Business failure is the inevitable consequence of our inability to know the future with certainty.

But when a great many businesses, all at once, suffer losses or have to close, that *should* surprise us. Losses suffered in a single business are one thing. Again, no one has perfect foresight. But why should so many businessmen make errors all at once? The market gradually weeds out business owners who do a poor job as stewards of capital and forecasters of consumer demand by punishing them with losses and, if their inefficiency persists, driving them out of business altogether. So why should businessmen, even those well established and who have passed the market test year after year, suddenly all make the same kind of error?

British economist Lionel Robbins argued that this "cluster of errors," as he called it, demanded explanation: "Why should the leaders of business in the various industries producing producers' goods make errors of judgment at the same time and in the same direction?" [3] We call this pattern of (apparent) business prosperity followed by general business depression the *business cycle*, the *trade cycle*, or the *boom-bust cycle*. Does it have a cause or is it, as Karl Marx tried to argue, an inherent feature of the market economy?

This question matters today because the Obama administration has ridden into town blaming "deregulation" and the market itself for the meltdown, and promising the usual government solutions. To prevent another painful bust, we need to know what set us up for this one. We need to uncover what drives the business cycle.

One clue lies in the historical fact that busts are especially severe in capital-goods industries---e.g., raw materials, construction, capital equipment, and the like---and relatively mild in the consumer goods sector: pencils, hats, picture frames. Put another way, things consumers actually buy don't suffer from busts as much as do things produced in the higher order stages of production, farther removed from finished consumer goods. Why should this be?

How things work in a free market

The economist F. A. Hayek won the Nobel Prize in economics in 1974 for a theory of the business cycle that holds great explanatory power-especially in light of the 2008 financial crisis, which so many economists have been at a loss to explain. Hayek's work, which builds on a theory developed by economist Ludwig von Mises, finds the root of the boom-bust cycle in the central bank. In our case that's the Federal Reserve System, the very institution that postures as the protector of the economy and the source of relief from business cycles. Chapter 6 will have more to say about what the Federal Reserve is and how it operates. For now it is enough to say that the Fed, which opened its doors in 1914 after passage of the Federal Reserve Act in 1913, can expand and contract the supply of money in the economy, and can influence the movement of interest rates upward or downward.

Looking at the money supply makes sense when looking for the root of an economy-wide problem. After all, money is the one thing present in all corners of the market, as Lionel Robbins pointed out in his 1934 book *The Great Depression*. "Is it not probable," he asked, "'that disturbances affecting many lines of industry at once will be found to have monetary causes?" [4]

In particular, the culprit turns out to be the central bank's interference with interest rates. Interest rates are like a price. Borrowed money, or loaned capital, is a good, and you pay a price to borrow it. When you put money in a savings account or buy a bond, you are the lender, and so the interest rate you earn is the price you are being paid for your money.

As with all goods, the *supply* of loanable funds sometimes goes up and down, and on the other hand *demand* for loanable funds goes up and down. The supply and demand determine the price. If more families are saving more or more banks are lending, borrowers don't have to pay as much to borrow-interest rates go down. If there's a rush to borrow or a dearth of loanable funds, interest rates go up.

That's what happens in a free market, where supply and demand set the price. There are some results of this dynamic, not obvious at first, that contribute to a healthy economy.

Let's start with the case in which people are saving more, thus increasing the supply of lending capital and lowering interest rates. From a business's perspective, low interest rates provide an opportunity to engage in long-term projects that would not payoff under higher interest rates. Businesses respond to the lower rates by taking the opportunity to engage in long-term projects aimed at increasing their productive capacity in the future---e.g., expanding existing facilities, building a new physical plant or acquiring new capital equipment.

Look at it also from the saver's perspective. Saving more indicates a relatively lower desire to consume in the present. This is another incentive for businesses to invest in the future, to carry out time-consuming investment projects with an eye to *future* production, rather than produce and sell things *now*.

On the other hand, if people possess an intense desire to consume right now, they will save less---making it less affordable for businesses to carry out long-term projects (because interest rates will be higher). The big supply of *consumer* dollars on the table make it a good time to produce and sell *now*.

The way to express this happy arrangement is to say that *the interest rate coordinates production across time*. It ensures a compatible mix of market forces: if people want to consume now, businesses respond accordingly; if people want to consume in the future, businesses allocate resources to satisfy that desire as well. Firms won't devote as many resources to product development, for instance, when the consuming public prefers more existing goods right now.

. . . But then the Fed steps in

The interest rate can perform this coordinating function only if it is allowed to move up and down freely in response to changes in supply and demand. If the Fed manipulates the interest rate, we should not be surprised to observe discoordination on a massive scale.

As we shall see later, the Fed has various tools it can use to manipulate interest rates, moving them upward or downward. Suppose it lowers them. As we've seen, on the free market, interest rates go down because the public is saving more. But when the Fed lowers rates artificially, they no longer reflect the true state of consumer demand and economic conditions in general. People have not actually increased their savings or indicated a desire to lower their present consumption. These artificially low interest rates mislead investors. They make investment decisions suddenly appear profitable that under normal conditions would be correctly assessed as unprofitable. From the point of view of the economy as a whole, irrational investment decisions are made and investment activity is distorted. The Federal Reserve's policy of cheap credit misleads businesses into thinking that now is a good time to invest in *long-term* projects. But the public has given no indication of any intention to postpone *present* consumption and free up resources that business firms can devote to those long-term projects.[5] Even if some of these projects can be finished, with the public's saving relatively low there is reason to believe the necessary purchasing power won't be around later, when businesses hope to cash in on their long-term investments.

The central bank's lowering of the interest rate therefore creates a mismatch of market forces. The coordination of production across time is disrupted. Long-term investments that will bear fruit *only in the distant future* are encouraged at a time when the public has shown no letup in its desire to consume *in the present*. Consumers have not chosen to save and release resources for use in the higher stages of production.[1] To the contrary, the lower interest rates encourage them to save less and thus *consume more*, at a time when investors are also looking to *invest more* resources. The economy is being stretched in two directions at once, and resources are therefore being misallocated into lines that cannot be sustained over the long term.

As the company works towards completing its projects, it: will find that the resources it needs, such as labor, materials, replacement parts---called by economists "complementary factors of production"---are not available in sufficient quantities. The pool of real savings turns out to be smaller than

[1] What does it mean to say consumers "release" resources for use in the higher order stages of production? Think of your income as your compensation for goods and services you have produced or helped produce. The less of that money you use to enter the economy and claim goods for your own use and the more of it you save, the larger is the pool of real savings from which producers can draw.

entrepreneurs anticipated, and thus the complementary factors of production they need wind up being scarcer than they expected. The prices for these parts, labor, and other resources will therefore be higher than entrepreneurs expected, and business costs will rise. Firms will need to borrow more to finance these unanticipated increases in input prices. This increased demand for borrowing will raise the interest rate. Reality now begins to set in: some of these projects cannot be completed. The economy is not yet wealthy enough to fund them all, although the artificially low interest rate had misled investors into thinking it was.

The economy, in other words, can support only so many investment projects at once. The interest rate acts as the market's restraint on how many such projects are begun, in order to prevent the initiation of more projects than the pool of savings can support in the long run. When the interest rate is *artificially* lowered, more loans can be extended and more projects *started*, but artificially low interest rates do not magically supply the additional real resources necessary to complete all the projects.[6]

Moreover, the *kind* of projects that are started differ from those that would have been started on the free market. Mises draws an analogy between an economy under the influence of artificially low interest rates and a home builder who falsely believes he has more resources---more bricks, say---than he really does. He will build a house whose size and proportions are different from the ones he would have chosen if he had known his true supply of bricks. He will not be able to complete this larger house with the number of bricks he has. The sooner he discovers his true brick supply the better, for then he can adjust his production plans before too much of the finished house is produced and too many of his labor and material resources are squandered. If he finds out only toward the very final stages of the project, he will have to destroy almost the entire house, and both he and society at large will be so much the poorer for his malinvestment of all those resources.[7]

In the short run the result of the central bank's lowering of interest rates is the apparent prosperity of the boom period. Stocks and real estate shoot up. New construction is everywhere, businesses are expanding their capacity, and people are enjoying a high standard of living. But the economy is on a sugar high, and reality inevitably sets in. Some of these investments will prove to be unsustainable and will have to be abandoned, with the resources devoted to them having been partially or completely squandered.[8]

Keynes's fantasy: Permanent boom

That is one of the reasons the Fed cannot simply pump more credit into the economy and keep the boom going.[9] Yet the economist John Maynard Keynes-who is oddly back in fashion in Washington (even though his system collapsed in the early 1970s when it couldn't account for "stagflation") proposed exactly this: "The remedy for the boom is not a higher rate of interest but a lower rate of interest! For that may enable the so-called boom to last. The right remedy for the trade cycle is not to be found in abolishing booms and thus keeping us permanently in a semi-slump; but in abolishing slumps and keeping us permanently in a quasi-boom."[10]

As usual, Keynes was dealing in fantasy. The more the Fed inflates, the worse the eventual reckoning will be. [11] Every new wave of additional artificial credit deforms the capital structure still further, making the inevitable bust all the more severe, because so much more capital will have been squandered and so many more resources misallocated. The more the process is allowed to go on, the further along the economy moves in its unsustainable direction, just as the house builder from Mises' example gets himself into deeper trouble the more he works on the house while under a false impression of how many bricks he has left. He could have built a house successfully with the bricks he had on hand, but thinking he has more than he really does, he goes about building a different kind of house, and one which he lacks the necessary resources to complete.

As it becomes clear that so much of the boom is unsustainable in the long run, pressure builds for liquidation of the malinvestments---that is, they need to be discontinued, the equipment sold off. The misdirected capital, if salvageable, needs to be freed up for other enterprises where it is more urgently needed. Should the Fed ignore this pressure and simply carry on inflating the money supply, Mises warned, it runs the risk of hyperinflation, a severe, galloping inflation that destroys the currency unit altogether.[2]

Writing during the Great Depression, F. A. Hayek scolded those who thought they could inflate their way out of the disaster, keeping interest rates pushed

[2] Hyperinflation or the central bank's cessation of its cheap credit policy out of a fear of hyperinflation are not the only two ways the bust can come. The artificially low interest rates stimulate venture capital (long-term investment) and consumer-good production (short-term investment), stretching the economy at both ends at the expense of the middle (capital maintenance, or medium-term investment). If the government tries to keep the boom going by continually pumping in new money, the undermaintenance of existing capital will eventually impinge on the economy's ability to keep consumers supplied with current consumables. Alternatively stated, market forces will eventually reallocate resources away from venture capital and current consumables toward capital maintenance, thus ending the boom. For an easy-to-understand example of this process, see Robert P. Murphy, "The Importance of Capital Theory," October 20, 2008, http://mises.org/daily/3155.

down indefinitely:

> Instead of furthering the inevitable liquidation of the maladjustments brought about by the boom during the last three years, all conceivable means have been used to prevent that readjustment from taking place; and one of these means, which has been repeatedly tried though without success, from the earliest to the most recent stages of depression, has been this deliberate policy of credit expansion....
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> To combat the depression by a forced credit expansion is to attempt to cure the evil by the very means which brought it about; because we are suffering from a misdirection of production, we want to create further misdirection---a procedure that can only lead to a much more severe crisis as soon as the credit expansion comes to an end.... It is probably to this experiment, together with the attempts to prevent liquidation once the crisis had come, that we owe the exceptional severity and duration of the depression. [12]

The recession or depression is the necessary if unfortunate correction process by which the malinvestments of the boom period, having at last been brought to light, are finally liquidated, redeployed elsewhere in the economy where they can contribute to producing something consumers actually want. No longer are wealth and goods diverted into unsustainable investments with inadequate demand and insufficient resources. Businesses fail and investment projects are abandoned.

Although painful for many people, the recession or depression phase of the cycle is not where the damage is done. The bust is the period in which the economy sloughs off the malinvestments and the capital misallocation, re-establishes the structure of production along sustainable lines, and restores itself to health. The damage is done during the boom phase, the period of false prosperity that precedes the bust. It is then that the artificial lowering of interest rates causes the misdirection of capital and the initiation of unsustainable investments. It is then that resources that would genuinely have satisfied consumer demand are diverted into projects that make sense only in light of the temporary and artificial conditions of the boom. For the mistaken bricklayer, the damage wasn't done when he tore down the walls of the excessively large house he could never complete; the damage was done when he laid the bricks too broadly. Nobody likes unemployment and bankruptcy, of course, but they would not have been necessary had the artificial boom not been stimulated in the first place.

As we can now see, the Austrian theory successfully answers our two original questions. The "cluster of errors" occurs because an artificially low interest rate systematically misleads economic actors, who make investment decisions as if more saved resources exist in the economy than actually do. Since these resources do not in fact exist, not all of the newly undertaken investment projects can be completed. The downturn is heavier in producer-goods industries than in consumer-goods industries because that sector is the most sensitive to interest-rate changes, and therefore disproportionately attracts investment. [13]

Investment adviser Peter Schiff draws an analogy between an artificial boom and a circus that comes to town for a few weeks. When the circus arrives, its performers and the crowds it attracts patronize local restaurants and businesses. Now suppose a restaurant owner mistakenly concludes that this boom in his business will endure permanently. He may respond by building an addition, or perhaps even opening a second location. But as soon as the circus leaves town, our businessman finds he has tragically miscalculated.[14]

Does it make sense to try to inflate this poor businessman's way out of his predicament? In other words, should the banking system create new money out of thin air to lend to him to keep his business profitable? Creating new money doesn't create any new stuff, so lending this business owner newly created money merely allows him to draw more of the economy's existing resource pool to himself, at the expense of genuine businesses that actually cater to real consumer wishes. Getting him hooked on cheap credit only prolongs the misallocation of resources. This restaurant is a bubble activity that can survive only under the phony conditions of what we might call the circus-induced boom. It needs to come to an end, so that the resources it employs can be reallocated to more sensible lines of production.

One more point is important to remember: all firms are affected by the artificial boom, not just those that embarked on new investment projects or that came into existence in the first place only thanks to artificially cheap credit. By the peak of the dot-com boom in the year 2000, for example, Microsoft-which had been established long before the boom found itself face to face with the shortage of factors of production that Austrian theory predicts; the company began having a difficult time finding and keeping employees, especially in Silicon Valley.[15] Mises observed that "in order to continue production on the enlarged scale brought about by the expansion of credit, *all entrepreneurs*, those who did expand their activities no less than those who produce only within the limits in which they produced previously, need additional funds as the costs of production are now higher." [16]

Notice that the precipitating factor in the business cycle has nothing to do with the market economy itself. It is the government's policy of pushing interest rates below the level at which the free market would have set them. The central bank is a government institution, established by government legislation, whose personnel are appointed by government and which enjoys government-granted monopoly privileges. It bears repeating: the central bank's interventions into the economy give rise to the business cycle, and *the central bank is not a free-market institution*.

The theory restated

Here, in a very simple summary, is what the Austrian theory says:

1) Interest rates can come down in two ways: a) the public saves more; or b) the central bank artificially forces them down.

2) Businessmen respond to the lower interest rates by starting new projects. The projects tend to be those that are the most interest-rate sensitive-in particular, they occur in the so-called higher-order stages of production: mining, raw materials, construction, capital equipment, etc. Production processes farthest removed in time from finished consumer goods, in other words.

3a) If the interest rate is lower because of natural causes---e.g., increased saving---then the market works smoothly. People's deferred consumption provides the material wherewithal for businesses' new investment projects to be seen through to completion.

3b) If the interest rate is lower because of artificial causes---e.g., the manipulation by a central bank-then these projects cannot all be completed. The necessary resources to complete them have not been saved by the public. Investors have been misled into production lines that cannot be sustained.

4) Imagine a home builder who believes he has 20 percent more bricks than he actually has. He will build a different kind of house than he would if he had an accurate count of his brick supply. (Assume he can't buy any more.) The dimensions will be different. The style may even be different. And the longer he goes without realizing his error, the worse the eventual reckoning will be. If he finds out his error only at the very end, he'll have to tear down the whole (incomplete) house, and all those resources and labor time will have been squandered. Society will be that much the poorer.

5) The economy is like the home builder. Forcing interest rates lower than the free market would have set them makes economic actors act as if more saved resources exist than actually do. Some portion of their new investment is malinvestment---investment in lines that would have made sense if the saved resources existed to sustain and complete them, but which do not make sense in light of current resource availability.

6) The housing boom is a classic example of this theory in action. Artificially low interest rates misdirected enormous resources into home construction. We now know that was unsustainable. There were only so many $900,000 homes that the public, which had been saving very little, was in a position to buy.

7) The sooner the monetary manipulation comes to an end, the sooner the malinvestment can be shaken out and misallocated resources redirected into sustainable lines. The longer we try to prop things up, the worse the inevitable bust will be. The home builder in our example would have been much better off if he had discovered his error sooner, because far fewer resources would have been irrevocably squandered. The same goes for the economy at large.

The longer you hold on, the more it hurts

A reasonable objection to the Austrian explanation runs as follows: why can't businessmen simply learn to distinguish between low interest rates that reflect an increase in genuine savings, and low interest rates that reflect nothing more than Fed manipulation? Why do they not learn Austrian business cycle theory and then avoid expanding when the Fed tries to ignite an artificial boom?

The answer is that it is not so easy. (First of all, even most *economists* are unaware of Austrian business cycle theory, and it is a rare business school in which the subject is taught.) Even businessmen who do know the Austrian theory and who know with absolute certainty that the Fed is keeping interest rates artificially low may still find it in their interest to borrow and launch new projects, hoping their project will be one of the lucky ones and that they can get out well before the bust hits. If they sit back and do nothing, and do not react to the lower rates, their competitors surely will, and might be able to gain market share at their expense. Someone will take the bait.

The Austrian theory of the business cycle does not, and is not intended to, account for the length and persistence of a depression. It is a theory of the artificial boom, which culminates in the bust. The bust period is longer the more government prevents the economy from reallocating labor and capital into a sustainable pattern of production. Government interference, in the form of wage or price controls, emergency lending, additional "liquidity," further monetary inflation, and so on-all aimed at diminishing short-term pain-exacerbate the long-term agony.

Attempts to inflate the economy out of the downturn by pumping in more money created out of thin air and thereby keeping interest rates artificially low only make the eventual and inevitable collapse---which, modern superstitions notwithstanding, cannot be held off indefinitely by monetary trickery---all the more severe. The malinvestments need to be discontinued and liquidated, not encouraged and subsidized, if the economy's capital structure is to return to a sustainable condition.

There will always be those who, not understanding the situation, will call for still more and greater monetary injections in order to try to keep the boom going, but their number has skyrocketed since the fall of 2008. Painton York strategist Roger Nightingale was far from alone in 2008 in urging the world's central banks to lower interest rates to zero. "I'm not talking about 50 basis points," he said. "We really have to take rates down to effectively zero.... The Europeans have to go to zero, the Brits have to go very close to zero, the Japanese of course haven't got much room, they certainly have to go to zero." He added that even zero might not be low enough. Bank of England governor Mervyn King said he was ready to reduce rates to "whatever level is necessary," including as low as zero. [17]

In other downturns, everyone would have understood this to be, well, crazy. Today, so many of our financial analysts have taken leave of their senses that we hear zero interest rates, the Keynesian dream, discussed as if it were a serious policy proposal. Such an uncomprehending suggestion would merely perpetuate and aggravate the resource misallocations of the boom and set the stage for a far worse crisis in the future. (But since uncomprehending suggestions seem to be driving American economic policy right now, we should not be surprised that the Fed itself made the move to zero interest rates in mid-December 2008, setting its federal-funds rate target at 0 to 0.25 percent.)[18]

Likewise, there must be no attempt to prop up prices or wages. Resources and laborers need to be directed into those lines of production in which the healthy, non-bubble economy needs them. When prices and wages are made artificially rigid, this process is disrupted and the return to prosperity delayed. Contrary to popular belief, wages were rather high during the Great Depression. But that was the problem-they were *artificially* high, thanks to government intervention, and therefore far fewer people were hired in the first place.

The folly of public-works stimulus

Keynesian "pump-priming," whereby governments fund "public works" projects, often financed by deficits, is another destructive if inexplicably fashionable course of action, based on the modern superstition that the very act of spending, on anything at all, is the path to economic health. This is the root of the "stimulus" packages that Democrats typically want to implement. (The Republican version involves printing up money out of thin air and then sending out checks, an equally counterproductive strategy.) *Take from the economy as a whole and pour resources into particular sectors-that should make us rich!* Economic historian Robert Higgs compared plans like these to someone taking water from the deep end of a pool, pouring it into the shallow end, and expecting the water level to rise.

The economy is trying to readjust the allocation of capital and labor across the various stages of production, liquidating those concerns that are squandering wealth and directing resources into those lines in which healthy expansion is possible. Additional public-works spending is one of the last things the economy needs, for it (1) deprives the private sector of resources by taxing people to support these projects; (2) diverts resources toward firms that themselves may need to be liquidated; and (3) artificially drives *up* interest rates (if the projects are funded by government borrowing), thereby making bank credit more difficult to come by for firms that are actually producing things consumers have freely indicated they want.

In addition to all that, these projects are the very opposite of what the fragile economy of the bust calls for. It needs to shift resources swiftly into the production of goods in line with consumer demand and with as little resource waste as possible. Government, on the other hand, has no non-arbitrary way of knowing how much of something to produce, where to produce it, using what materials and which production methods. Private firms use a profit-and-loss test to gauge how well they are meeting consumer needs. If they make profits, the market has ratified their production decisions. They have efficiently combined their inputs to create a finished product that consumers value more than they valued the sum of the inputs. If they post losses, that means they have squandered resources that could have been more effectively employed on behalf of consumer welfare elsewhere in the economy. Government has no such feedback mechanism, since it acquires its resources not through voluntary means, as in the private sector, but through seizure from the citizens, and no one can choose to buy or not to buy what the government produces with those resources. The purpose of production on the market is to satisfy real consumer demands; politically motivated and economically arbitrary diversions of resources do absolutely nothing to set the economy on a long-run path of accomplishing that. So these projects squander wealth at a time of falling living standards and a need for the greatest possible efficiency with existing resources.

The state must also resist the temptation to extend any form of emergency credit to failing businesses. If their positions are sound, credit will be forthcoming from the private sector. If not, then they should go out of business, freeing up resources to be used by more capable stewards. Diverting resources from those who have successfully met consumer demands to those who have not serves only to weaken the economy still further and make recovery that much more difficult. Society is made worse off, not better off, by subsidizing loans and channeling resources to the restaurant owner who thought the circus would never leave.

The dot-com boom

Prior to the present crisis, the so-called dot-com boom was the last example of the Austrian theory in action in American history.

August 9, 1995, was an extraordinary day for Netscape, the company that created the then-popular web browser of the same name. It was the company's initial public offering (IPO), the first day it was to offer shares for sale to the public. By the end of the day it was trading at $75 a share, nearly three times the $28 where it began. The company had not yet posted a dollar of profit, but co-founder Jim Clark's 20 percent stake in the company was suddenly worth $663 million.

Netscape's IPO has often been identified as the start of the Internet or dot-com boom, a five-year period in which Internet startup companies saw their stock prices soar, only to come crashing down to reality in the year 2000. In these heady days, Alan Greenspan began arguing that a "New Economy" had arrived, in which previous constraints no longer held, and booms did not have to end in busts. But to the contrary, the dot-com boom did end in a bust, along the precise lines predicted by Austrian business cycle theory.

All the elements are there. There were low interest rates brought about by the Fed's expansionary monetary policy: the money supply grew by 52 percent between June 1995 and March 2000 (as measured by a metric called "Money

Zero Maturity" or MZM), at a time when real GDP growth was only 22 percent.[19] Over time these companies found that the complementary capital goods they needed-such as web programmers, Silicon Valley real estate, and Internet domain names were unexpectedly scarce, and thus rising in price. The government's price indexes showed low to moderate price inflation during the years of the dot-com boom, but had no way to reflect the dramatic rise in the *specific prices* of concern to dot-com firms-a case of statistical aggregates concealing what is truly relevant and interesting. It was the rise in these specific prices that made the dot-com boom so difficult to sustain.

Austrian business cycle theory describes an economy in which (1) malinvestment has occurred, and more projects have been begun than can be completed in light of current resources, and in which at the same time (2) an excess of consumption has taken place. That is precisely what the data from the dot-com boom reveals: the American savings rate was negative by the year 2000 and households' outstanding debt as a percentage of income was hitting all-time highs, while at the same time investment in the Bay Area was 233 percent higher than trend.[20] With consumers not saving, and in fact falling into ever greater debt, the necessary resources to complete these investment projects were not being released. This mismatch could not persist.

The condition of the NASDAQ (where most of the dot-com stocks traded) during these years strongly suggested that this sector had been distorted and inflated by the Fed's easy credit policy. The price-to-earnings (PIE) ratios of the over-the-counter securities of the NASDAQ are normally relatively low, usually around ten or less, meaning you could theoretically buy up 100 percent of the company's stock by paying about ten times the company's annual earnings. By the late 1990s many of these prices were hundreds of times their earnings (if indeed they had any earnings at all!).[21] It was at this time that Alan

Greenspan was arguing that it was impossible at a given moment to know if a financial bubble existed. These dot-com stocks sent the NASDAQ tumbling in the year 2000, when it suffered a 40 percent decline.[22]

Between June 1999 and May 2000 the Fed began to tighten credit, raising the discount rate six times. Some commentators complained that Greenspan had derailed the dot-com boom and torpedoed the "new economy," which could have persisted into the indefinite future had the Fed not turned down the monetary spigot. That is not true. Dramatically rising prices for the factors of production on which the boom depended-from network engineers and technical managers to office space and housing for workers-had to bring it to an end eventually. Programmers' salaries more than doubled during the boom. Coveted domain names skyrocketed: while tv.com sold for $15,000 in 1996, by 1997 business.com was selling for $150,000. Few entrepreneurs could have expected that degree of sector-specific spikes in prices.[23]

It was in response to the dot-com and NASDAQ collapses and the modest recession that accompanied them that Alan Greenspan and the Fed chose to embark on a robust policy of inflation, an approach that began in early 2001, which saw no fewer than eleven rate cuts, and culminated in lowering the federal funds rate (the rate at which banks, lend to each other) to a mere 1 percent from June 2003 to June 2004.[24] That year alone saw eleven rate cuts. The unsustainable dot-com boom could not, in the end, be reignited, and thank goodness-the resource misallocations in that sector were unhealthy for the economy. But the Fed's easy money and refusal to allow the recession of 2000 to take its course led to an even more perilous bubble elsewhere. That was the only recession on record in which housing starts did not decline.[25] Not coincidentally, that was also the moment at which people began to buy into the bromides of the housing bubble: housing prices never fall, a house is the best investment one can make, house-flipping is a safe and easy way to make a living, and all the other delusions to which the Fed-created bubble gave rise.[26] By intervening in the market, the Fed only postponed what it was trying to avoid, and made the crash worse when it finally came.

The Japanese bust

Similarly, the 1980s saw a spectacular boom in japan financed in large part by inflationary credit expansion-that is, the creation of money out of thin air through the banking system and the artificial lowering of interest rates that accompanies the increased money supply. When the inevitable bust came, it hit hard. The Nikkei, the Japanese stock market, dropped from 40,000 in late 1989 to 15,000 in 1992. Real estate prices dropped 80 percent between 1991 and 1998. All the while, the Bank of japan and the Japanese government more generally did everything they could to prevent the liquidation and try to prop up prices and bad debt. They pushed interest rates all the way to zero. They obstructed market correction of the malinvestments of the boom. The structure of production therefore remained stuck in a pattern that did not correspond to consumer demand. As a result, japan had an economic depression of its own for well over a decade.

A valuable piece of evidence in favor of the Austrian account of what happened to Japan's economy emerges when we examine the sectors that were hardest hit by the recession. If Austrian business cycle theory is correct, we should expect the most significant declines to be in the capital intensive industries in the higher-order stages of production.[27] And that is exactly what the data shows. In order from most capital intensive and farthest from finished consumer goods to least capital intensive are mining, manufacturing, wholesale and retail, and the service industry. And that is also the order, from most to least, in which these industries suffered during the downturn.[28]

Industries in the earliest stages of production suffered from the worst growth rates throughout the 1990s.

None of the traditional interventionist tools that supposedly bring about economic recovery-everyone of which is being peddled before Americans today-did a single thing to revive her fortunes. What did Japan try? Increases in the money supply, interest-rate cuts, trillions of yen in public works spending (being proposed as part of a new "stimulus package" for the United States as this book is being written), other increases in government spending, government lending to business, and bailouts (and even outright nationalization) of some banks. That should sound pretty familiar, since these are the very proposals that supporters of the free market are being ridiculed for not accepting. The Japanese government set up a 20-trillion yen guarantee fund for zombie companies that were on their way to going bust. According to the Economic Intelligence Unit, funds "disbursed under the program are often going to companies that are not creditworthy and that would otherwise go bankrupt"---in other words, precisely the firms that need to be liquidated during the recession, and with which healthy firms are forced to compete for resources if they are artificially kept alive.[29]

Mechanisms were put in place by which the Japanese government itself would buy up shares in order to boost stock prices should the Nikkei drop below a certain level. During the 1990s the Japanese government launched no fewer than ten fiscal stimulus packages at a total cost of over 100 trillion yen. None of them worked. In addition to keeping the Japanese economy in the doldrums, these packages also put japan in terrible fiscal shape, with its national debt (including various kinds of "off-budget" debt) in excess of 200 percent of GDP.[30] In order to get banks lending again, the Bank of japan pumped money into the banking system at an extraordinary rate between 2001 and 2003---in

April 2002, the yearly rate of growth was 293 percent. It didn't work. During those years bank loans averaged a 4.5 percent annual decrease.[31]

All of these activities distort market processes and hinder the reallocation of resources that needs to occur as a boom comes to an end and a bust begins to set in.

The public works programs were especially extensive. According to Paul Krugman, who supports such programs:

> Think of it as the WPA [Works Progress Administration] on steroids. Over the past decade Japan has used enormous public works projects as a way to create jobs and pump money into the economy. The statistics are awesome. In 1996 Japan's public works spending, as a share of GDP, was more than four times that of the United States. Japan poured as much concrete as we did, though it has a little less than half our population and 4 percent of our land area. One Japanese worker in 10 was employed in the construction industry, far more than in other advanced countries.[32]

With an effort of this size and scope having failed, the best Krugman could do was to argue, lamely, that in the absence of these programs the situation would have been worse. The opposite is true: had government not distorted the market so severely and seized all these resources for its own uneconomic use, the private sector would have been in a much healthier position to build toward recovery.

One thing these programs did succeed in doing was to plunge japan very deeply into debt. Japan's deficit spending, says Krugman, has "pushed Japan's debt above 130 percent of GDP. That's the highest ratio among advanced nations, considerably worse than either Belgium or Italy, the traditional champions. It's almost twice the advanced-country average and 2.5 times the figure for the United States. "[33]

In short, the Japanese government did absolutely everything the Austrian theory suggests it should not do in order to fight recession. It engaged in every single activity that Keynesians like Paul Krugman recommended. As a result, its slump went on for a decade and a half. Keynesians continue to recommend these very policies for the United States, as if the debacle in japan never occurred. In late 2008 financial newspapers in the U.S. actually began to speak of a revival of Keynesianism (claiming, absurdly enough, that the present crisis gave the ideas of Keynes, one of the twentieth century's collection of inexplicably respected crackpots, a new lease on life), again with no mention of japan.

Do manias cause bubbles?

One argument has it that economic bubbles, sectors of the economy in which prices are artificially high, are caused by psychological factors that lead people to become irrationally committed to the production of particular kinds of goods---dot-com startups and new houses being perhaps the readiest examples in our own time. Such explanations may play a role in determining exactly *which path* the business cycle will take and which *specific assets* will be overvalued, but they cannot by themselves explain the bubble economy. Manias may steer over-investment in one direction or another, but it's the Federal Reserve pressing the accelerator.

Ludwig von Mises reminds us that a sudden drive for a particular kind of investment will raise the prices of complementary factors of production---in the case of the dot-coms, for instance, the salaries of programmers and the costs of coveted domain names---as well as the interest rate itself. In order for a mania-driven boom to persist, there would have to be an increasing supply of credit in order to fund it, since investments in that sector would grow steadily more costly over time. That could not occur in the absence of credit expansion.[34]

Even Anna Schwartz, a monetarist and not an Austrian, argues that describing something as a "mania" is no explanation at all, and that only expansionary monetary policy by the central bank can account for these phenomena:

> If you investigate individually the manias that the market has so dubbed over the years, in every case, it was expansive monetary policy that generated the boom in an asset. The particular asset varied from one boom to another. But the basic underlying propagator was too-easy monetary policy and too-low interest rates that induced ordinary people to say, well, it's so cheap to acquire whatever is the object of desire in an asset boom, and go ahead and acquire that object. And then of course if monetary policy tightens, the boom collapses.[35]

What it all means

The Austrian theory of the business cycle, the single most important piece of economic knowledge for Americans right now, has great explanatory power. It also exonerates the free market of blame for the boom-bust cycle, since the factors that bring the cycle about-the artificially low interest rates that provoke the boom, and the foolish government interventions that prolong the bust-are all examples of *interference* with the free market. Critics of the market who ignore the arguments raised in this chapter are, to say the least, not being honest.

The Austrian theory can also be helpfully applied to the study of history, and boom-bust cycles that have occurred in the past. It can even account for the Great Depression, an episode that some economists have gone so far as to suggest had "no obvious cause at all. "[36] It is to that subject that we now turn.