

The Shape of the Coming Recovery

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The Great Recession continues. After 18 months of economic contraction, 6.5 million jobs have been lost, and the unemployment rate is fast approaching double digits. Many with jobs are seeing their hours cut—the length of the average workweek fell to a record low in June—and are taking cuts in pay as overall wage growth stalls. Balance sheets have also been hit hard: Some \$15 trillion in household wealth has evaporated, the federal government has run up deficits approaching \$1.5 trillion, and many state and local governments have borrowed heavily to fill gaping budget holes.

Despite the grim statistics, economic conditions are slowly firming. Households are cautious, but they are no longer panicked. Spending and home sales, which were in free fall through last Christmas, have since stabilized. Businesses continue to cut costs, but the cutting is not nearly as draconian as it was just a few months ago. Overseas customers are ordering again, providing some lift to exports. Investors are calmer as the financial crisis has abated meaningfully in the wake of the Fed's unprecedented efforts, the Troubled Asset Relief Program, and regulators' stress tests on the nation's largest banks.

With fiscal stimulus providing its maximum economic benefit in the next few months, real GDP growth should turn from negative to positive in the current quarter. The arbiters of the national business cycle at the National Bureau of Economic Research will thus eventually proclaim that this recession ended sometime this summer.¹

¹ The business cycle dating committee at the NBER will likely not make this determination until sometime next year, as it waits to get a complete set of economic data. The committee prizes accuracy above timeliness.

Given these prospects, a heated debate has broken out over the strength of the coming recovery, with the back-and-forth simplifying into which letter of the alphabet best describes its shape.

Optimists argue for a V-shaped recovery, with a vigorous economic revival beginning soon. History is on their side. The one and only regularity of past business cycles is that severe downturns have been followed by strong recoveries, and shallow downturns by shallow recoveries.² The 2001 recession was the mildest since World War II—real GDP never posted two consecutive declining quarters—and the subsequent recovery was exceptionally tepid (see Chart 1). In contrast, the recession in 1957-58 was especially severe, at least as measured by the decline in GDP, and the subsequent recovery was robust.³

For a V-shaped recovery to follow in the wake of the current Great Recession, there must be a quick revival in confidence. Sentiment usually reflects economic conditions; it does not drive them. But the severity of this downturn was due in part to a psychological shock: Consumers, businesses and investors lost faith in the economy and panicked. It is thus conceivable that some households pared their spending more than they needed or wanted to, and thus they

² This is known as the Zamowitz slingshot; named for Chicago academic Victor Zamowitz, who observed this relationship. Zamowitz did much to advance the study of business cycles and was a long-standing member of the business cycle dating committee of the National Bureau of Economic Research until his recent death.

³ The horizontal axis in Chart 1 measures the peak-to-trough percent decline in real GDP in each recession since 1950; the vertical axis shows the percent increase in real GDP in the first two years of the subsequent recovery. The regression line shows the significance of the relationship between the severity of recessions and the strength of the subsequent recovery.

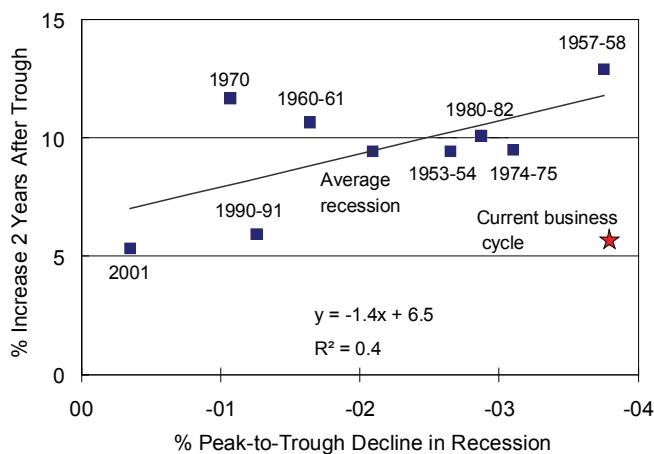
will resume spending more aggressively. Businesses may also have slashed too deeply and, once confidence is restored, will ramp up investment and hiring.

Pessimists dismiss this possibility, arguing instead for a W-shaped or double-dip business cycle, with the economy sliding back into recession after a brief recovery, or an L-shaped cycle in which the recession is followed by measurably weaker growth for an extended period. A W-shaped cycle seems more likely if policymakers misstep. The last time the economy suffered a double-dip was in the early 1980s, when policymakers attempted to rein in double-digit inflation with credit controls and extraordinarily tight money.⁴ This time around, policy mistakes seem more likely to involve efforts to quell the mounting foreclosure crisis, as the administration's current plan to facilitate mortgage loan refinancings and modifications has gotten off to a painfully slow start. Whether the recovery gains traction and evolves into a self-sustaining expansion or descends back into recession will likely depend on whether policymakers find the political will to maintain or increase support to the economy.

A darker L-shaped scenario could resemble the Japanese experience of the 1990s, following their banking debacle. The current financial crisis seems to have passed its worst point, but financial institutions still hold hundreds of billions of dollars in toxic assets, and credit markets remain troubled. Moreover, unlike the Japanese, who finance their large budget deficits with their own saving, U.S. budget deficits are largely

⁴ The policy steps that led to the early 1980s double-dip were arguably intentional, designed to break that period's runaway inflation.

Chart 1: Not Your Father's or Grandfather's Business Cycle
% change in real GDP



financed by global investors, who have grown increasingly nervous about America's long-term fiscal challenges. Unless policymakers do something credible to address these issues, global investors could bolt, sending the dollar reeling and inflation and interest rates soaring. The fragile financial system would crumble, intensifying the credit crunch and further impairing businesses' ability to invest in the technologies and innovations that drive productivity growth. The economy's long-term growth potential would fall.

Between the optimists and pessimists are those expecting something akin to a U-shaped business cycle. The recession will end this year, according to this view, but the recovery will be impaired in its early stages by the fragile housing and vehicle industries. These interest rate-sensitive sectors have powered the early parts of past economic upturns but seem unable to do so now given the surfeit of

in the housing and vehicle markets and the financial system are serious and will take time to work through. Once that happens, however, the economy should gain traction quickly. Indeed, progress is already being made, suggesting the upside of the U-shaped cycle will become evident early in the next decade.⁵

Given the high uncertainty about which letter best describes the shape of the coming recovery, this article considers the entire alphabet. We begin with a consideration of the U-shaped cycle that Moody's Economy.com deems the most likely scenario, with a 50% probability of occurrence. Given the preponderance of downside risks to the baseline, the W- and L-shaped cycles, with a collective 30% probability of occurrence, are considered next. We conclude on a

⁵ Views differ regarding the strength of the U's upside. The most popular holds that it will still be relatively muted; a backward J would better describe the shape of this recovery.

housing inventory and spent-up vehicle demand. Problems plaguing the banking system and credit markets will also take time to resolve, ensuring that the credit crunch will lift slowly. This was not our fathers' or even our grandfathers' recession, and thus it will not be a typical recovery.

The overhangs

positive note with a consideration of the V-shaped cycle, which accounts for the remaining 20% of the distribution of possible economic outcomes.⁶

U-shaped cycle. In the baseline or most likely U-shaped scenario, the Great Recession ends in the next few months (see Table 1). It will be remembered as the longest, most severe and broadest-based downturn since the Great Depression.⁷ Employment is expected to decline by more than 8 million jobs peak to trough, and the unemployment rate will peak well above 10% early next summer. While GDP growth is expected to resume late in 2009, it will remain disappointingly muted throughout much of 2010. Not until 2011-2012 will growth accelerate substantially, and the economy will not return to full employment until well into the next decade.⁸

Expectations that the Great Recession will end soon depend on more stable household spending. It is the collapse in such spending, particularly among higher-income households, that has driven the severe downturn. These households have

⁶ These probabilities are determined through the use of Monte Carlo simulation techniques applied to the Moody's Economy.com macroeconomic model of the U.S. economy.

⁷ To illustrate the breadth of the downturn: As of June, Moody's Economy.com found all 50 states and more than 380 metropolitan areas to be in recession. The only major industry groups currently growing are healthcare, educational services, utilities, and the federal government.

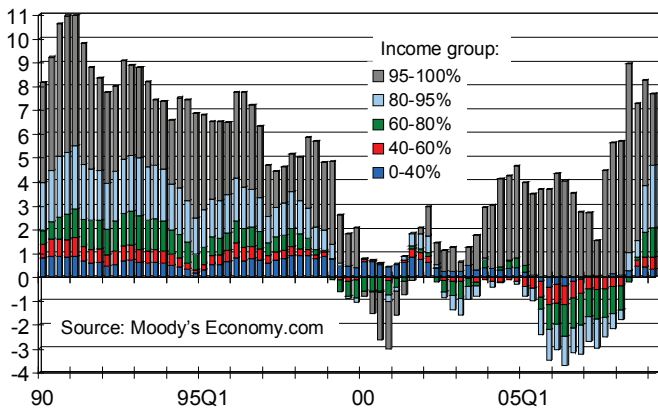
⁸ Unemployment will not return to its estimated full-employment rate of 5.5% until late 2013. Prior to this recession, an unemployment rate of 5% was considered to represent full employment. In this downturn, long spells of unemployment are eroding many workers' skills and marketability, making it harder to find another job. Reduced mobility due to the loss of housing equity—nearly 15 million homeowners are currently estimated to be under water on their mortgages—is also a factor, making it harder for unemployed workers to move to where jobs are available.

Table 1: U.S. Business Cycle Since World War II

Peak	Trough	Duration in Months		Peak-to-Trough % Change					
		Recession Peak to Trough	Expansion Trough to Peak	Real GDP	Industrial Production	Nonfarm Employment	Jobless Rate Low	High	Change
December 2007	September 2009	22	73	-3.9%	-19.2%	-5.5%	4.4%	10.1%	5.7%
March 2001	November 2001	8	120	-0.4%	-6.3%	-2.0%	3.8%	6.3%	2.5%
July 1990	March 1991	8	92	-1.3%	-4.3%	-1.5%	5.0%	7.8%	2.8%
July 1981	November 1982	16	12	-2.9%	-9.5%	-3.1%	7.2%	10.8%	3.6%
January 1980	July 1980	6	58	-2.2%	-6.2%	-1.3%	5.6%	7.8%	2.2%
November 1973	March 1975	16	36	-3.1%	-14.8%	-2.7%	4.6%	9.0%	4.4%
December 1969	November 1970	11	106	-1.0%	-5.8%	-1.4%	3.4%	6.1%	2.7%
April 1960	February 1961	10	24	-1.3%	-6.2%	-2.3%	4.8%	7.1%	2.3%
August 1957	April 1958	8	39	-3.8%	-12.7%	-4.4%	3.7%	7.5%	3.8%
July 1953	May 1954	10	45	-2.7%	-9.0%	-3.3%	2.5%	6.1%	3.6%
November 1948	October 1949	11	37	-1.7%	-8.6%	-5.1%	3.4%	7.9%	4.5%
Average		10	57	-2.0%	-8.3%	-2.7%	4.4%	7.6%	3.2%

Sources: NBER, BEA, FRB, BLS, Moody's Economy.com

Chart 2: Consumers Have Made Big Adjustments...
Contribution to personal saving rate, ppt.



seen their nest eggs crushed by plunging stock and house prices. Using the simple rule of thumb that every dollar decline in net worth causes consumers to cut a nickel's worth of subsequent spending, the \$15 trillion loss of wealth will cost the economy a whopping \$750 billion in consumer spending; this is equal to about 5% of GDP.⁹

It appears that household spending has already seen the worst of this wealth effect. Households who saved little to nothing during the technology and housing bubbles earlier in the decade are now saving between 6% and 8% of their income (see Chart 2).¹⁰ Higher-income households in particular have made very large adjustments to their spending and saving. Those in the top 20% of the income distribution were saving essentially nothing in the midst of the housing bubble but are now saving very aggressively. At the current rate of saving, their nest eggs will return to their previous peak size in approximately 10 years, assuming aggregate asset returns of about 5%. While households probably want to save even more—the overall saving rate

⁹ The wealth effect is highly variable depending on the asset and household expectations regarding future asset price growth. The stock wealth effect is lower than the housing wealth effect, and the wealth effect is more potent if the change is thought to be permanent. See "MEW Matters." Zandi and Pozsar. *Regional Financial Review*. April 2006.

¹⁰ This is based on the Federal Reserve's Flow of Funds measure of personal saving, derived by the change in the value of household assets and liabilities. The more widely used BEA measure of personal saving, which is based on the difference between household income and spending, has not risen as much after abstracting from the recent tax cuts and transfer payments being distributed as part of the fiscal stimulus. However, the BEA saving rate is likely to be revised higher as part of upcoming revisions to the national income and product accounts and will then be closer to the FoF saving rate.

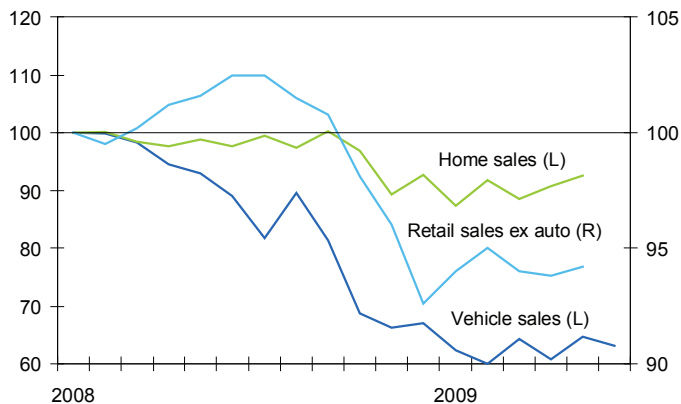
is likely headed back to the 10% that prevailed prior to the buying binge of the past quarter-century—they will do this in a much more measured way. Household spending growth should thus more closely match the growth in incomes.

Household spending has in fact stabilized in recent months. Vehicle sales have also firmed this summer, after plunging to a more than 50-year low earlier this year as GM and Chrysler unraveled (see Chart 3). Home sales hit their nadir last winter, and while much of the recent leveling off has been due to increased foreclosures and short sales, this is part of finding a bottom in the housing market. Broader retailing remains soft and volatile month to month, but it, too, is no longer sliding.

It will also be no coincidence if the Great Recession ends just as the \$787 billion fiscal stimulus passed in February provides its maximum economic benefit. Based on simulations of the Moody's Economy.com macro model, the stimulus will add a substantial 3.6 percentage points to real GDP growth in the third quarter, after adding 3 percentage points in the second (see Chart 4).

The principal impact of the stimulus to date has been mitigating cuts in jobs and services by state and

Chart 3: ...And Household Buying Stabilized
Index: Jan 2008=100



local governments. Increased help to unemployed workers contributes to the recent firming in consumer confidence (confidence hit an all-time low in February, just prior to the stimulus) and more stable retail sales. While hard to discern when the economy is still losing hundreds of thousands of jobs each month, without the stimulus, the job losses would be measurably worse.¹¹

The benefits of lower payroll taxes, bigger checks to Social Security recipients, and more infrastructure spending have yet to be seen, but they will, starting this summer and fall. The housing market should also receive a boost in the next few months from the housing tax credit for first-time homebuyers. Buyers have until December to close on a first home,

¹¹ Instead of 1.3 million jobs lost in the second quarter, without the stimulus, the economy would have lost an estimated 1.8 million jobs. Unemployment would now be 9.8%, rather than 9.5%.

Chart 4: The Stimulus Will Soon Pack Its Biggest Punch
Contribution to real GDP growth, ppt.

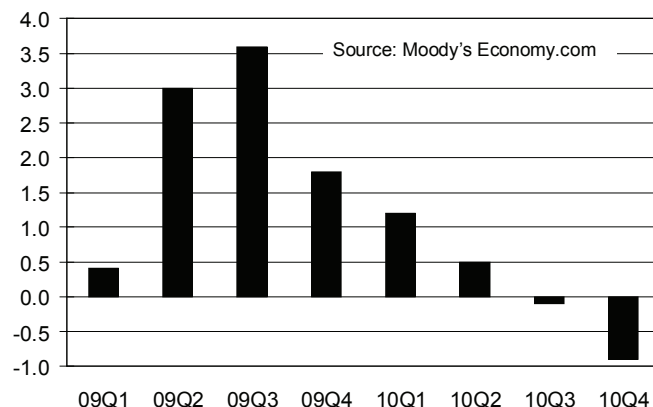
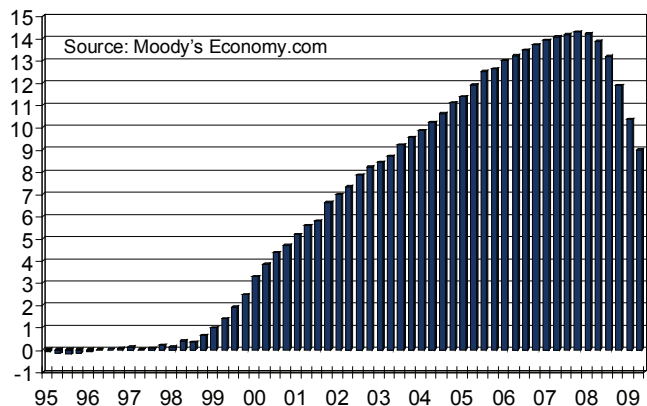


Chart 5: Vehicle Demand Is Spent
Vehicle units, mil



which means they have to shop this summer and sign a contract this fall. While the recently enacted Cash for Clunkers program was not part of the stimulus legislation, it will provide a meaningful boost to vehicle sales between August and November, about when the economy is expected to move from recession to recovery.¹²

Arguments that the recession's persistence means the stimulus has failed are misplaced. The stimulus is working close to expectations, at least so far. It is also premature to conclude that the economy requires another round of stimulus. That cannot be reasonably determined until late this year, after the current stimulus has had an opportunity to work. If more fiscal policy help is needed, it should probably include more aid to state governments, another tax boost to housing, and a phasing in of the higher personal marginal tax rate currently legislated to take hold in 2011.

Odds are more help will indeed be needed, given the likelihood that the Great Recession will not be followed by the vigorous rebound that has historically followed severe downturns. Past recoveries have been powered by the housing and vehicle industries, as pent-up demand was unleashed when interest rates fell and confidence returned.

Such a dynamic is unlikely in the current cycle. Vehicle demand remains significantly spent-up—automakers relied on aggressive price discounting and

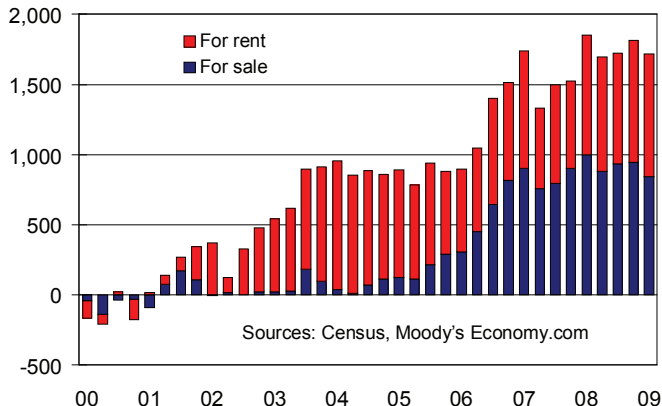
financing terms during the first half of the decade to maintain sales well above levels supported by underlying demographic, wealth and income trends. Trend light vehicle sales averaged no more than 15 million units annually between 1999 and 2006, but actual sales were closer to 17 million units.¹³ By the end of 2006, such excess vehicle sales totaled an astounding 14 million units (see Chart 5). At the currently depressed sales pace, this is being quickly corrected, but it will not be until year-end 2010 that the vehicle market is free of this millstone.

The housing market is also laboring under a surfeit of vacant inventory, built during the housing boom and bubble. Excess housing inventory can be derived from the difference between actual and equilibrium vacancy rates—the vacancy rate at which house prices and rents grow at the rate of household incomes.¹⁴ The equilibrium homeowner vacancy rate is estimated to be 1.7%, and the equilibrium rental vacancy rate is 8%. Given that the current actual homeowner and rental vacancy rates are 2.9% and 10%, respectively, this translates into an excess of 1.8 million housing units for sale and rent (see Chart 6). While inventories are down from their year-ago peak, it will take until year-end 2010 before they decline sufficiently for the housing market to fully revive.

¹³ Trend vehicle sales are derived from an econometrically estimated error correction model of sales. They are currently estimated to be 15.6 million units annually.

¹⁴ Abstracting from the business cycle and the availability and cost of credit, house prices and rents should grow at the rate of household income. An explanation of this can be found in "Aftershock: Housing in the Wake of the Mortgage Meltdown." Zandi and Chen. December 2007.

Chart 6: A Surfeit of Housing Inventory
Excess housing inventory, ths of units



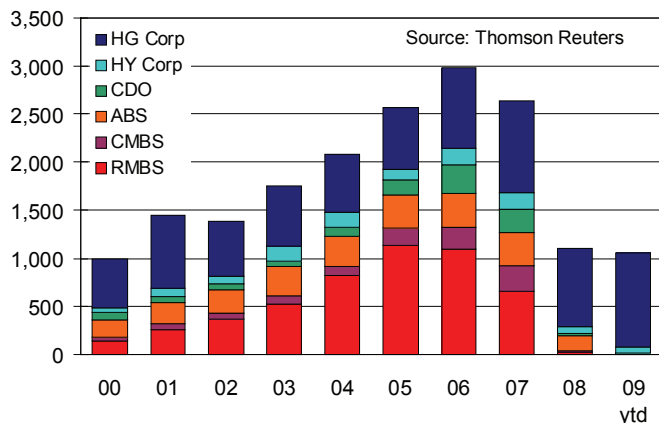
This is not to say that vehicle and housing demand and production will not soon rise above their extraordinarily depressed levels, only that demand and production will not kick into a higher gear until the overhang in both vehicles and housing is righted. That is unlikely in 2010, but very likely in 2011 and 2012.

Also impairing an early growth rebound will be the stubbornly entrenched credit crunch. Monumental efforts by the Federal Reserve, Treasury and other regulators to quell the financial panic have been successful, but the financial system remains far from normal. The banking system remains stymied by the uncertain losses on the system's balance sheet, despite all the capital that has been raised. Large parts of the credit market are still dysfunctional: Effectively no residential mortgage, commercial mortgage, or asset-backed securities have been issued since markets shut down late last year (see Chart 7). Underwriting standards thus remain stiff and credit flows weak; household and nonfinancial corporate debt outstanding is falling for the first time since record keeping began in the early 1950s.¹⁵ It is hard to see how the recovery can gain much traction until credit flows more freely.

Progress is being made. The stress tests imposed on the nation's 19 largest bank holding companies in early May succeeded in restoring confidence, as these banks have been forced to raise enough capital to withstand an economic scenario similar to the Great Depression.

¹⁵ This statement is based on the Federal Reserve's Flow of Funds.

Chart 7: The Shadow Banking System Remains Troubled
Bond issuance, \$ bil, annualized



Once it is clear that this is not another depression and that house prices have stabilized and unemployment has peaked, these banks will use their ample capital to extend credit more aggressively. The securities market will also slowly come back to life as the Federal Reserve's TALF program and the Treasury's legacy securities program are more widely accepted by investors. New accounting rules and legal structures necessary to restart the market should also come into place in 2010, so that by 2011 bond issuance resumes in earnest.

The strength of recovery in 2011-2012 will also depend on how quickly businesses hire back those who have lost jobs in the downturn. After the tech bust earlier in this decade, it took about four years for the labor market to rebound; employment peaked in late 2000, then declined for two years before bottoming in late 2002, and then took another two years, until late 2004, to return to its previous high. The cycle should be only a bit more elongated this time: Employment peaked at the very end of 2007, is expected to hit bottom in early 2010, and will return to its previous peak by mid-2012 (see Chart 8). This would be a significant achievement, given that employment fell by approximately 2 million jobs in the early 2000s recession but is expected to fall by 8 million in the current one.

Behind the job losses in the early 2000s recession was substantial overhiring, which characterized the tech boom of the late 1990s. The number-one business problem during this period was a lack of qualified labor. Firms, fearful they would be unable to find workers when

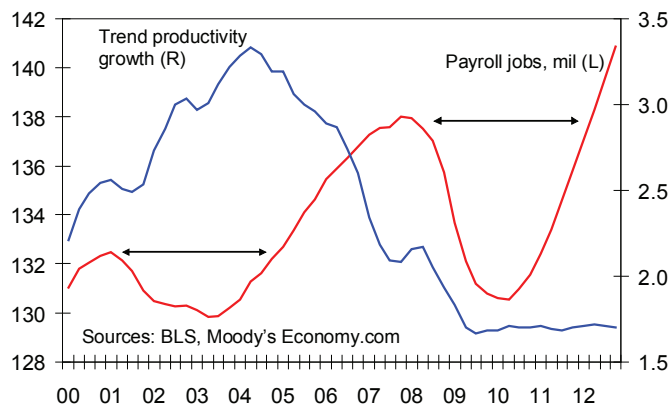
they needed them, began to hire even in advance of need, further tightening the labor market. When the tech bust hit, firms dumped this excess labor and were slow to hire back once sales began to improve, given the strong underlying productivity growth of the time. The internet was revolutionizing business, and firms could produce more with less labor.

Businesses are also dumping workers in the current recession, but not because they overhired during the good times. Firms were in fact very cautious given their experience just a few years earlier. Instead, fear has more likely driven the recent plunge in employment. Senior management panicked along with everyone else when the financial system collapsed and credit dried up. Feeling their companies' survival was at stake, managers slashed everything, including payrolls. Under this interpretation, businesses have cut to the proverbial bone.¹⁶ They let workers go that they really would have preferred to keep and will thus hire back once they feel the coast is clear. Adding pressure to do so is weaker productivity growth, now back to its pre-internet revolution levels.

W- and L-shaped cycle. Many economists do not buy into the sanguine

¹⁶ Consistent with this interpretation is the seeming breakdown of Okun's Law, which describes the long-standing relationship between changes in GDP and changes in unemployment. Given the decline in real GDP over the past year, Okun's Law would suggest the unemployment rate should be closer to 8% than to its current 9.5%. Okun's Law is of course only a rule of thumb and is dependent on stable potential GDP growth and full employment, among other factors. It could also be the case that measured GDP is incorrect and will be revised lower. These caveats aside, recent outsized declines in employment and increases in unemployment relative to GDP suggest that firms have overdone their job cutting.

Chart 8: A Different Kind of Job Market Recovery



U-shaped economic outlook. Some believe the economy may enjoy a brief period of growth later this year or early next but will then slide back into recession. This is the W or double-dip scenario. Still darker is the view that the economy will not only remain in recession but will also see at best halting growth for a long time. This is the L-shaped cycle.

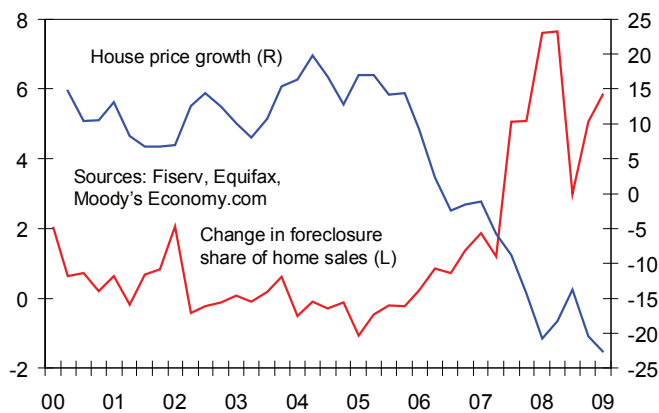
Views range widely about the dynamics behind these scenarios, but they broadly distill down to the belief that problems in the financial system and housing market are intractable and that policymakers do not have the tools, will or acumen to resolve them. This pessimism cannot be dismissed: The economy's problems are very serious, and the odds that policymakers will misstep are uncomfortably high. After all, it was a series of policy errors last September that turned a significant but manageable financial crisis into the panic that precipitated the Great Recession.¹⁷

The biggest potential policy pitfalls currently can be seen in the mounting foreclosure crisis, which appears to be overwhelming the Obama administration's plan to stem it. First mortgage loan defaults—the first step toward foreclosure—surged at the end of June, reaching nearly a 4 million annualized pace.¹⁸ So far in this crisis there have been more than 7 million defaults, equal to one in seven U.S. mortgage loans. Foreclosures are certain to soar higher in coming months as

¹⁷ A recounting of these policy missteps is provided in "The Once and Future Financial System." Zandi. *Regional Financial Review*. May 2009.

¹⁸ This is based on credit file data from credit bureau Equifax.

Chart 9: Efforts to Quell the Foreclosure Crisis Falter



moratoriums expire that were imposed earlier by various states, Fannie Mae and Freddie Mac, and mortgage servicers.

Most homeowners in foreclosure will lose their homes. Since foreclosed property is dumped on the housing market at a steep discount, foreclosures drive down house prices and thus household wealth (see Chart 9). Some \$6 trillion in homeowners' equity has been wiped out since house prices peaked three years ago. Households that find themselves suddenly less wealthy are very nervous spenders. Foreclosures also ratchet up pressure on the financial institutions that own the mortgage loans and securities. Losses on all subprime, alt-A and jumbo loans made during the housing boom will easily top \$1 trillion, nearly equal to the amount of capital underpinning the U.S. banking system. Prime borrowers are also defaulting with increasing regularity. Banks are again able to raise capital, but until these losses abate, even healthy banks will remain reluctant to extend credit, even to creditworthy borrowers.

Foreclosures also beget more foreclosures in a self-reinforcing vicious cycle. As foreclosure sales drive down prices, more homeowners are pushed under water—their mortgages exceed the market value of their homes. At the end of March, 15 million homeowners—about one in five—were in such a predicament, putting them at grave risk of defaulting, particularly if anything else were to go wrong in their financial lives.

The administration's plan to short-circuit this foreclosure cycle provides numerous incentives to homeowners, mortgage servicers and mortgage owners to modify loans and cut monthly payments. But the plan is also highly

complex. It is taking much too long for all parties to figure out what it means for them and thus to act. The plan could also be short-circuited by the presence of multiple liens; first mortgage holders often will not modify loans unless second or third mortgage holders also reduce their own claims, lest the benefit of lower monthly payments on the first mortgage go to the junior lien holders.¹⁹

The plan is also guilty of deferring problems rather than solving them, in effect kicking the can down the road. Lower monthly mortgage payments under the plan last only five years; for many homeowners deeply under water, it makes no sense to keep paying on their mortgages no matter how affordable the payment. Why spend \$5,000 fixing your roof if you are already \$20,000 under water? Thus, many such homeowners will ultimately land back in foreclosure.²⁰

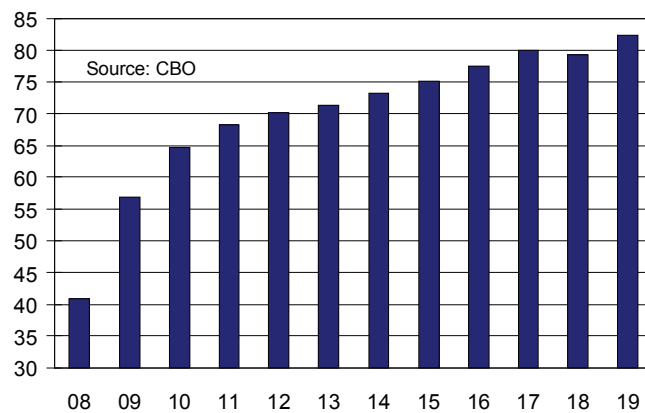
The administration is working to overcome these problems, but with little apparent success to date. The volume of loans modified under the plan is modest. If it does not pick up, and if foreclosures continue to rise, house prices will sink further, undermining household wealth and threatening the financial system's current fragile stability. Recovery cannot take root as long as house prices are falling.

Another growing threat to recovery involves the nation's disconcerting long-term fiscal outlook. This was a serious

¹⁹ An assessment of the Obama administration's housing policy is provided in "Obama's Housing Policy," Zandi. *Regional Financial Review*. February 2009.

²⁰ The high redefault rates associated with various types of recent loan modifications is documented in the OCC and OTS Mortgage Metrics report for the first quarter of 2009 at files.ots.treas.gov/482047.pdf.

Chart 10: The Fiscal Crisis Deepens
Federal debt-to-GDP ratio under the president's budget



problem well before the current financial and economic crisis, but the costs of combating the crisis have put it into clear relief. The federal debt-to-GDP ratio—the best measure of the burden of our collective indebtedness—was close to 40% in fiscal 2008, roughly the average level since World War II and fiscally manageable. By fiscal 2010, the nonpartisan Congressional Budget Office expects this ratio to rise to 65%, its highest level since just after World War II and just barely manageable (see Chart 10). Under President Obama's first budget plan as scored by the CBO, the debt-to-GDP ratio rises above 80% by the end of the 10-year budget horizon in 2019. This is not manageable.

Global investors are already turning skittish at the prospect of trillions of dollars in new Treasury bond issuance. The Chinese and others have supported establishing a new international reserve currency as an alternative to the dollar. Their concern is that U.S. profligacy will undermine the value of dollars and dollar assets, of which they hold hundreds of billions. While such talk is at this point simply that—the dollar remains firmly entrenched as the leading global reserve currency—it does highlight the potential risks if policymakers do not credibly address the long-term fiscal outlook soon.

Healthcare reform may be an important litmus test in this regard. Reform entails providing health insurance to nearly 50 million Americans currently without it. While laudable, this will cost between \$100 billion and \$150 billion annually depending on a range of factors. Some can credibly be paid for via savings throughout the healthcare system, but not all of it. Without tax changes, such as a reduction in the tax exclusion

Chart 11: Can Faith Be Restored?
Global business expectations, diffusion index



for employer-provided insurance or a surcharge on higher-income households, healthcare reform will almost surely add to the nation's fiscal problems.

None of this will be lost on investors. Holders of U.S. debt have been willing to give the U.S. government a pass with regard to its current extraordinary borrowing, knowing that without an aggressive fiscal policy response, the Great Recession and its resulting budget woes would be even worse. But investors will not finance large federal budget deficits ad infinitum, at least not at low interest rates. Higher interest rates would be accompanied by lower stock prices and a sinking dollar; a lethal mix and a prescription for a Japanese-like lost decade for the U.S. economy.

V-shaped cycle. Pessimists have been particularly vocal during this crisis, so it may seem surprising that there are just as many optimists, who believe the economy is on the cusp of a solid recovery. Real GDP growth in 2010 is expected to rise 2%, according to the average forecast among economists participating in the most recent Blue Chip consensus survey.²¹ One-fourth of the survey's respondents even expect growth during the year to top the economy's proximate potential growth rate. This may not be the vigorous V-shaped recovery presaged by historical experience, but it is not far off.

²¹ This is based on the June 2009 Blue Chip survey. As a benchmark, Moody's Economy.com is projecting 2010 real GDP growth of 1.3%, which is at the low end of economists' expectations for the year. However, the Moody's Economy.com growth expectations for 2011-2012 are measurably stronger than the consensus for the reasons previously explained when discussing the U-shaped baseline economic outlook.

Behind this optimistic view of the coming recovery is the belief that the economy's problems are being worked through quickly and that policymakers have the political will and ability to do what is necessary. It is also implicitly predicated on the notion that the Great Recession was triggered by a crisis of confidence, and that once confidence returns

so, too, will strong growth. There are indeed early signs that sentiment is improving. Higher stock prices and narrower credit spreads indicate better investor confidence, and consumer confidence has clearly moved off the record lows registered earlier in the year, according to both the Conference Board and University of Michigan monthly surveys.

Business confidence also appears on the mend. According to the weekly Moody's Economy.com global business survey, sentiment has improved steadily since hitting bottom early this year and is now back to where it was just after last September's panic. Responses to all the survey's questions have brightened, but most telling is a dramatic improvement in expectations regarding the business outlook six months from now. Expectations currently are as strong as they have been since 2006, well prior to the recession. This is a good leading indicator, which suggests the recovery should soon get off to a good start (see Chart 11).

To be sure, confidence among investors, consumers and businesses remains low by historical comparison. Even with recent gains, the general mood remains consistent with an ongoing recession. But confidence is unpredictable, and if history is a guide, the abject pessimism of the past two years could quickly give way to sunny optimism. A continued strong, consistent and well-explained policy response would certainly help in this regard.

Changing sentiment generally reflects economic conditions and does not drive them. But this is not true at turning points in the economy, when sentiment propels investment, spending and payroll decisions. Confidence falls in a clear and

definitive way several months prior to the start of recessions, and it turns up in a clear and definitive way just prior to recoveries. This may be even truer in the current period, given how low confidence has fallen. The recent improvement in confidence is clear, and while not yet definitive, it is enough to hold out the possibility of a V-shaped recovery.

Conclusions. Predicting the end of the Great Recession is perilous, and anticipating the shape of the subsequent recovery is even more difficult. Considering a range of possibilities and handicapping them is always sensible, but never more so than now given the extraordinary uncertainty surrounding the economy's problems, the effectiveness of policy, and the critical role of investor, consumer and business sentiment.

It is not hard to be pessimistic. The financial system effectively collapsed, foreclosures are soaring, and unemployment will soon be in double digits. There is a legitimate basis for arguing that the economy will be mired in or close to recession for months or even years. But increasingly, those holding to the W- and L-shaped view of the business cycle appear to be forecasting with a ruler, much like those who, in the midst of the housing bubble, thought house prices and the economy could only pause, at worst, on their long upward march.

Optimism is more difficult. It relies on a technical reading of history—strong recoveries always follow deep recessions—and on faith. Optimists must have faith that the policy stimulus will work, and if not, that more stimulus will quickly be forthcoming. The V-shaped business cycle is a reasonable view of the economy's prospects, but it seems to ignore the thick fundamental shackles pinning the economy down. How can a strong recovery begin when the housing market and financial system remain in many respects dysfunctional?

It is prudent to act as if reality lies somewhere between the views of the pessimists and optimists. The Great Recession will end soon, and while the economy is headed back to life, it will not come roaring back. The fundamental shackles must be broken, confidence must be restored, and policymakers must remain deft and resolved to maintain or increase support to the economy. If so, the U-shaped view of the business cycle will prevail.

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