



TD Economics

Special Report

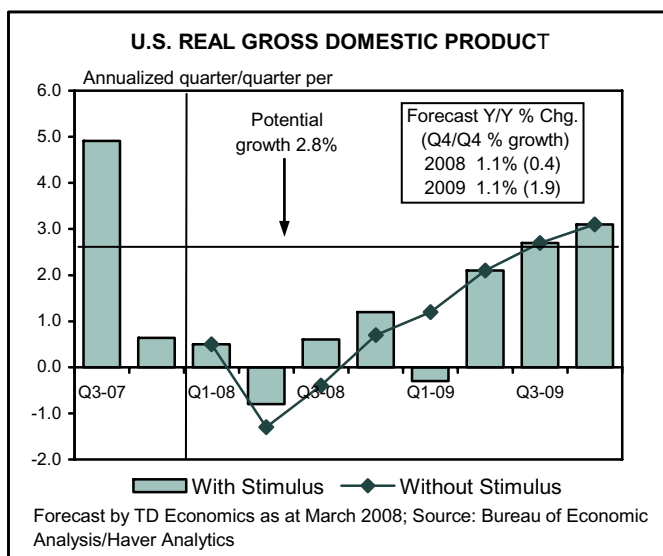
April 11, 2008

MUSINGS ON THE U.S. RECESSION

With the U.S. continuing to show signs of edging closer to a recession, there have been numerous questions and countless speculation as to how bad things might get. We believe our current forecast for the U.S. economy draws a proper balance between both upside and downside risks. As our forecasts for U.S. economic growth in 2008 and 2009 are both below consensus figures, we think many other forecasters have latched on more closely to some of these upside risks. At the same time, much of the media coverage appears to be biased to the opposite extreme. To help address this, we provide a fuller discussion of TD's current forecast for a U.S. recession, contrasting it with previous U.S. recession cycles as well as other current forecasts. Moreover, we provide the key reasons we believe a sharper, deeper recession is not the more likely outcome, as well as a discussion of the substantial risks of a worse result.

HIGHLIGHTS

- **TD Economics currently forecasts U.S. GDP growth will be just 1.1% in both 2008 and 2009.**
- **This includes two non-consecutive quarterly contractions in GDP growth.**
- **Rather than drawing the focus to a "short and shallow" U.S. recession, we would draw the focus to a longer and shallower period of recovery than is typical following a recession.**
- **Several factors argue that dire scenarios are unwarranted including aggressive interest rate cuts, little manufacturing inventory overhang, fiscal stimulus, and the ongoing strength in trade.**
- **Nevertheless, near-term risks will likely remain medium-term drags on growth and mute the strength of the recovery.**



TD Economics Forecast

Our current U.S. view from our Quarterly Economic Forecast in March calls for an annual average GDP growth rate of 1.1% in both 2008 and 2009. Our headline forecast of only two, non-consecutive quarters of negative growth may appear to suggest a "short and shallow" recession, but this is matched with a much shallower and longer period of recovery. Moreover, this forecast incorporates the expected impact from the fiscal package. As the chart her shows, this spending is expected to add 0.5-1.0 percentage points each to the second through fourth quarters of 2008 followed by a payback that will subtract 1.5 percentage points from GDP growth in 2009Q1. It is only because of this fiscal package that our forecast does not show two consecutive quarterly contractions in GDP in 2008.

In spite of this boost, our forecast includes a sustained period of weakness expected to last seven quarters – from 2007Q4 through 2009Q2. We forecast five quarterly contractions in employment – a total loss of 1mn jobs. In terms of duration, this would be on par with the 1981/82 recession, and longer than the period in which sustained losses were seen in the 1990/91 or 2001 recessions. The magnitude of losses would be smaller than those seen in earlier recessions (1981/82 lost 2.8mn jobs, 1990/91 lost 1.6mn jobs, 2001 lost 2.0mn jobs). However, in the two years following the 1981/82 recession, 7.4mn jobs were added, and in the two years following the 1990/91 recession, 4mn jobs were added. With our shallow recovery, we expect just 600k in job gains in the final three quarters of 2009 and a likely muted pace into 2010, which is more similar with the post-2001 experience.

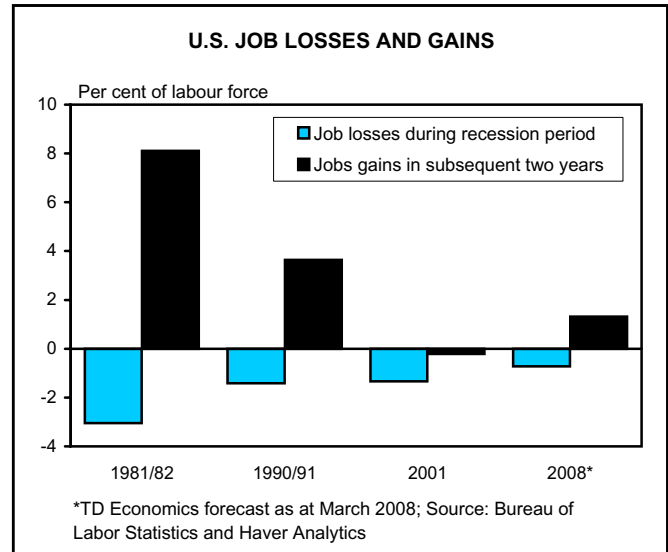
Additionally, we forecast four quarterly contractions in consumer spending and six contractions in non-residential investment. Both of these are in line with the 1990/91 recession or a shallower version of the 1981/82 recession. We are forecasting just one quarterly contraction in machinery and equipment investment, which would be atypical compared with past recessions, but is driven by the focal point of weakness being financial sector issues and residential construction (which we forecast will contract for another seven quarters).

As the table below shows, TD's current forecast for the U.S. economy is currently on the pessimistic side of consensus and major forecasters. While our forecast for 2008 GDP growth is only a few tenths of a percentage point lower than the consensus, our current GDP forecast for 2009 of 1.1% growth is just half of the current consensus figure with only the IMF's new forecasts released this week coming in lower.

Moderate Recession

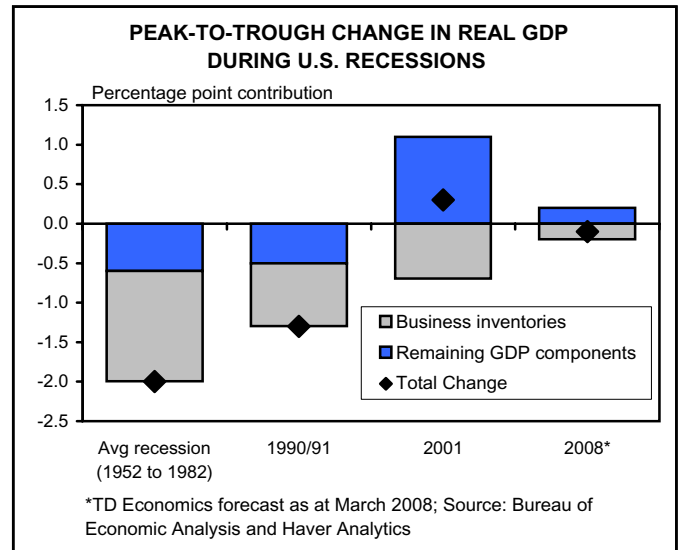
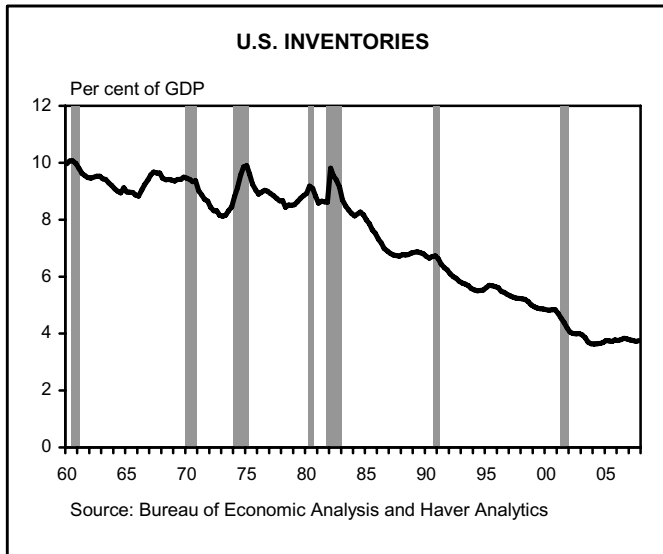
There are six principal features which we feel currently

2008/2009 U.S. FORECASTS			
	2008	2009	As at...
IMF (World Economic Outlook)	0.5	0.6	9-Apr
TD	1.1	1.1	19-Mar
Consensus (average of 26 U.S. firms)	1.4	2.3	10-Mar
Bank of Canada	1.5	2.5	24-Jan
Federal Reserve			
(central tendency)	1.3-2	2.1-2.7	30-Jan



support our forecast and at the same time, dispell some risks of a sharper downturn.

- 1) *Interest rates eased aggressively early*: One major factor leading up to most recessions is a monetary overshoot. Typically, the Fed is increasing interest rates right up until the time some unexpected shock has brought the economy into a recession. Since monetary policy acts only with a lag of 12-18 months, this means Fed cuts not only needed to offset this newly expected weakness, but the ongoing impact of interest rate hikes over the previous year and a half. In the current context, the slow burn through 2007 and early 2008 gave the Federal Reserve ample time to cut interest rates from 5.25% to 2.25% and we expect a further 125bps of easing by August 2008. Moreover, the Fed ended their rate hike cycle in June 2006, so there was little implicit monetary tightening still in the pipeline.
- 2) *Little manufacturing inventory overhang*: In addition to a monetary overshoot, inventory overhangs have been a leading factor in past recessions as businesses are caught off-guard. In fact, in a typical U.S. recession of the last 50 years, two-thirds of the contraction in GDP was the result of this channel alone. In the current cycle, the Inventory/Sales ratio is less than 1.3, compared with the last three recessions when it was sitting at 2, 1.8, and 1.4 (1981/82, 1990/91, and 2001 respectively). Moreover, as a result of technological innovations such as just-in-time production, the size of inventories has fallen from more than 10% of GDP up through the 1980s, to less than 4% of GDP now. Because the



scale of this overhang has been reduced, its scope for causing a sizeable contraction in GDP growth is much diminished.

- 3) *Limited overhangs elsewhere*: Parallel to inventories, there hasn't been a huge overhang of employment. Businesses often ended up with "excess labour" at peaks – but it is not clear that is a problem this time around. Similarly, balance sheets of non-financial firms will get battered but at least at the peak they were in good shape (maybe the best shape ever). So we really haven't seen the telltale pre-recession signs that lead to so much of the correction (inventories, labour, non-financial corporate balance sheets, etc).
- 4) *Timely fiscal stimulus*: Historically, fiscal stimulus tends to be much slower coming and is only felt once the economy has entered the recovery phase. In this case, consumer and business tax breaks are coming right in the middle of the recession and are the reason we do not have consecutive quarterly contractions in our headline GDP growth.
- 5) *Exports*: Ongoing dollar depreciation has kept exports growing at a steady 8% pace for three years now while import growth has begun to contract – with net exports expected to remain a significant driver through 2008. We expect global economic growth to average 3.7% in 2008 and 3.3% in 2009 (the IMF's newly released and pessimistic forecast is for global growth of 3.7% in 2008 and 3.8% in 2009 so once again, TD is more pessimistic on the outlook for 2009). Either of these would prove

much higher than in previous U.S. recessions when global growth averaged just 2% in the 2001 recession and just 1-2% during the recessions of the early 1980s and 1990s.

- 6) *Further Federal Reserve and Fiscal Innovations*: The Federal Reserve remains able to step in should the situation worsen and potentially buy a large share of the impaired assets, or more likely at least provide a guarantee backing their value. Also, Congress continues to work on plans to help forestall further mortgage foreclosures. And internationally, we are led to believe there are ongoing talks about the possibility – albeit only in the worst-case scenario – of a "super fund" to help take in a large share of the problem securities, which would be reissued after significant haircuts of the underlying value.

Risk Factors For a Severe Recession

So, our base case presented above represents what we believe is the most likely scenario. There are upside risks which we believe many other forecasters have latched on to in presenting forecasts with stronger outcomes in 2008 and especially 2009. But, we are not unmindful of some very serious downside risks. Such a negative scenario might not at this time be the most probable, but it does have a substantial probability and it could be very ugly. Unfortunately, the conventional forecasting approach focuses on consumer spending, investment, government spending, and net trade and then factors in interest rates. However, the credit/liquidity side is generally left implicit,

or at least endogenous to the forecast. But now, we have a largely exogenous financial/credit/liquidity shock.

While there are few historical precedents which can help to inform our forecasts, these are only imperfect matches to what in each case is a very unique set of circumstances. In the present context we do see the possibility of further systemic risks within both the housing and financial sectors, but there is no apparent systemic linkage from these into consumer spending. For example, during the Great Depression, consumer retrenchment came about both due to a severe tightening of credit, but also as a result of the imperfect way in which existing bankruptcy rules meshed with the new invention of installment credit. Consumers who failed to meet any payment lost both the product as well as any equity they might have had – leading consumers to stop all current spending in order to ensure they met all current payments.

In the current context, while there are wealth effects bearing down on U.S. consumers as the result of lost home equity, this channel suggests a loss to consumer spending of about 5 cents for every dollar lost in home equity – a magnitude which pales in comparison to dire historical examples such as the Great Depression. Nor do we see the large corporate debt overhang that brought about the decade-long recession and deflation in Japan. The U.S. S&L crisis is also informative but the lack of transparency and broad spread of affected financial products is very different in the current episode.

In the order of likelihood, we believe there are four substantial risk factors:

1) *Financial feedback*: This is a collection of items which could lead to further deleveraging and/or a sharp contraction of credit

A) One risk would be a *CDS market failure*. One tenuous support in the securitization market is the extent to which many of these securities have been hedged through insurance contracts. If various counterparties were unable to meet their obligations in backstopping many of the subprime debts currently in the market, confidence and credit would likely contract sharply. Unfortunately, this market remains more opaque than desired. The notional value of these securities exploded from \$29tr in December 2007 to nearly \$45tr by June 2008 – a \$16tr increase in just six months. In many cases,

however, these contracts were offset with nearly equal and offsetting CDS contracts so the net value is believed to be much closer to \$1tr. The potential losses from this base are currently assumed to be in the area of \$50-\$150bn, depending on the assumptions regarding default and recovery, but there is a large margin of error around this estimate and the implications for confidence elsewhere could be much larger.

B) With balance sheets impaired and further losses mounting, the *risk of another Bear Stearns-style run on a financial institution* remains possible. The Fed's extension of the discount window to primary dealers does help relieve the risk of a "run on the bank" style crisis, but it does not eliminate it.

C) Moreover, there could be further tentacles of the current crisis into the mainstream economy with the chance that *credit lines to nonfinancials* – which to date remain relatively flush with cash – may be impaired and not available to be drawn upon if needed.

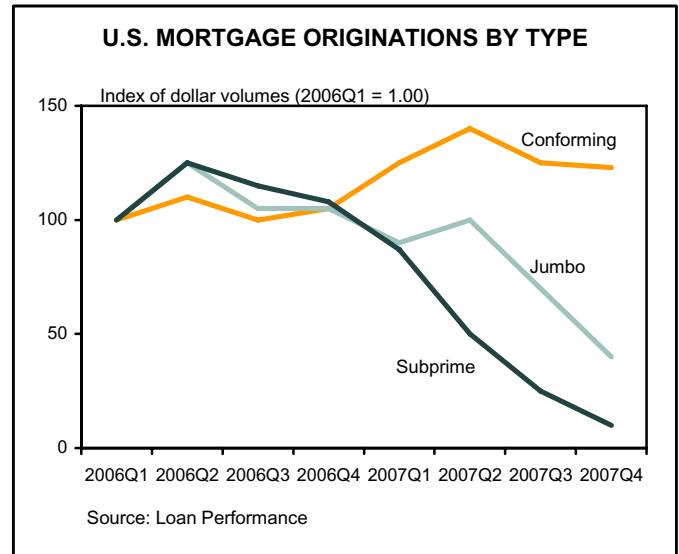
D) *Balance sheets look likely to worsen significantly* as we move through 2008. Only \$235bn in losses has been recorded to date. New IMF estimates now place the expected total losses just shy of \$1tr. Outside of the \$235bn in losses to date, there remain:

- ◆ Further ABS-related write-downs and loan loss provisions
- ◆ Losses in the insurance industry
- ◆ Higher costs with debt issuance in municipals and other bonds
- ◆ Possible losses on currently \$70bn and rising in distressed high yield debt
- ◆ Estimate of possible CDS counterparty-related losses: \$50-\$150bn

2) *Housing feedback*: High-end estimates are that 15% of all U.S. mortgages are currently underwater and this could rise to 25% should home prices decline a further 10%. This seems somewhat high to us, but unfortunately, matching local data on mortgage originations, home price declines, and loss in home equity value remains an imperfect exercise. Nevertheless, a cycle of further homes being dumped on the market driving further home price declines driving further mortgages un-

derwater, etc can not be ruled out.

- 3) *Global Recession*: The strong growth in U.S. exports has remained a positive and more than equal offset to the negative contributions to growth from the housing sector (exports account for 15% of U.S. GDP while housing accounts for only 4%). However, the U.K. Eurozone, and Japan are showing signs of weakening. Moreover, emerging market resilience has yet to be tested in times of U.S. consumer retrenchment. As such, we are likely to see a much softer global growth picture in the second half of 2008 and into 2009 than we have right now. Already, export volumes in China are half the pace they were in 2007 and with rising production costs, there are fears some industrial overhang in the export sector there may work itself off by the end of this year.
- 4) *Consumer retrenchment*: Inflation remains a bugbear for the U.S. economy. To the extent it stays the Fed's hand from cutting interest rates as aggressively as we forecast, this would translate into a weaker 2009 picture by the time this lack of monetary stimulus made itself felt on the economy. Moreover, this high energy and food inflation is weakening consumers' purchasing power, and could stymie much of the impact we thought the fiscal boost would have in the second half of 2008. As a general rule of thumb, a 1% increase in gas prices is equivalent to a \$1 billion decrease in real consumer spending elsewhere in the economy (all else equal). Year-over-year, gas prices have risen 30%, which pulls roughly \$30 billion away from discretionary spending. This dollar value is nearly equal to the amount of pass-through we expect to see to real consumer spending from the fiscal injection, so statistically the stimulus may be a wash on the economy. To date, however, these price pressures have not led to higher inflation into non-core sectors. Lastly, there are the psychological and wealth effects of further losses in tangible and financial assets that could further weaken spending.



Potential Outcome of a Severe Recession

We believe that if a downside risk were to materialize to our forecast, it would bias the U.S. economic path to a more drawn out and protracted slowdown, akin to the early 1980s experience, led by a retrenchment in business investment and exports. It is this second round impact through weaker exports and investments that tend to typify a longer and deeper recession, rather than the consumer-driven side more typical of the initial stages of a recession. Eventually, weaker U.S. imports mean less global economic growth which impacts U.S. exports and overall business sentiment. There would also likely be a second but shorter-lived contraction in residential investment likely to last just 2-3 quarters. As the chart on the previous page shows, the problems with securitization have led to substantial contractions in originations of jumbo and subprime mortgages, but conforming mortgages have seen no impact to date. As a result, a second leg of a U.S. recession would likely become apparent in this mortgage sector, as well.

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