



October 9, 2008

## Subprime Mortgage Crisis: the Paulson rescue plan is necessary, but hardly a cure-all

The subprime mortgage crisis has assumed increasingly alarming proportions. Following several unsuccessful initiatives designed to bolster confidence in the money markets, it was obvious that some new form of government intervention was called for. A new plot twist was added when US lawmakers played politics by rejecting Paulson's initial bail-out proposal. We will long remember Black Monday, September 29, 2008, a day that saw nearly US\$1.2T in market capitalization go up in smoke within a few hours. Washington lawmakers at last realized the urgency of the situation and grudgingly approved the amended plan a few days later.

While bailing out high risk-takers may be tricky, recent events have pushed the US government into a very tight corner. The sheer magnitude and systemic global risk posed by the subprime crisis demanded a firm response. We should point out that, historically, all major bank crises have been resolved through swift, decisive and targeted government intervention.<sup>1</sup> The present crisis would be no exception.

In this edition of *Economic Viewpoint*, the second of our three reports on the financial crisis, we will cover the US\$700B package proposed by the US Treasury and explain why, after numerous attempts at damage control, a tougher plan was needed to keep the financial system afloat. Congressional approval of the Paulson plan is a step in the right direction, but additional measures must be adopted to restore consumer confidence. The reason is the plan does not directly address plummeting real estate prices, the main source of the problems. Had the government failed to act, the resulting uncertainty might well have forced the US economy into a deep recession. We are nowhere near the economic conditions that prevailed during the Great Depression or the deflation that hit Japan in the late 90s, but government inertia would rapidly worsen the real economy.

<sup>1</sup> See [Economic Viewpoint](#) "Financial crisis: neither the first nor the last", October 3, 2008.

### THE CONTAINMENT PERIOD WAS DRAWING TO A CLOSE...

Losses incurred as a direct result of the financial crisis are astronomical. Financial write-downs of US\$585B sustained by financial institutions on a global scale, together with the astonishing meltdown of both Lehman Brothers and Washington Mutual, make the subprime mortgage crisis one of the most costly ever (table 1). According to the International Monetary Fund, total losses could even reach US\$1.4B.

At this point, it is difficult to second guess actions taken by US lawmakers (see box 1 for additional information). In an unprecedented move, the Fed made a colossal effort to contain the negative fallout. Beyond the cumulative cuts of 375 basis points from the federal funds target since September 2007, the Fed was forced to use less conventional methods (see box 2 to understand the ineffectiveness of the monetary policy). In addition to a \$US29B loan to JP Morgan to purchase Bear Stearns in March, the Fed also implemented a far-reaching program designed to: inject liquidity, broaden the offering of

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NOTE TO READERS: The letters k, M and B are used in texts and tables to refer to thousands, millions and billions respectively.

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**Table 1**  
**Bank losses and capital raise**

	<b>Losses</b>	<b>Capital raised</b>
In \$B (October 6, 2008)		
<b>Total</b>	<b>585.9</b>	<b>432.7</b>
<b>Americas</b>	334.0	235.0
<b>Europe</b>	227.4	175.1
<b>Asia</b>	24.6	22.6
Citigroup Inc.	60.8	71.1
Wachovia Corporation	52.7	11.0
Merrill Lynch & Co.	52.2	29.9
Washington Mutual Inc.	45.6	12.1
UBS AG	44.2	28.0
HSBC Holdings Plc	27.4	5.1
Bank of America Corp.	21.2	20.7
J. P. Morgan Chase & Co.	18.8	19.7
Morgan Stanley	15.7	14.6
IKB Deutsche Industriebank AG	14.8	12.2
Royal Bank of Scotland Group Plc	14.1	23.1
Lehman Brothers Holdings Inc.	13.8	13.9
Credit Suisse Group AG	10.4	3.0
Deutsche Bank AG	10.4	6.1
Wells Fargo & Company	10.0	5.8
Credit Agricole S.A.	8.8	8.5
Barclays Plc	7.6	17.9
Canadian Imperial Bank of Commerce	7.2	2.8
Fortis	7.1	23.1
Bayerische Landesbank	6.9	7.2
HBOS Plc	6.8	7.2
ING Groep N.V.	6.7	4.6
Societe Generale	6.6	9.4
Mizuho Financial Group Inc.	6.1	8.9
National City Corp.	5.4	11.8
Natixis	5.3	10.6
Indymac Bancorp Inc	4.9	4.8
Goldman Sachs Group Inc.	4.9	7.2
Lloyds TSB Group Plc	4.7	3.9
Landesbank Baden-Wuerttemberg	4.7	3.9
WestLB AG	4.6	2.4
Dresdner Bank AG	3.9	1.8
BNP Paribas	3.9	1.2
E*TRADE Financial Corp.	3.6	3.2
HSH Nordbank AG	3.5	3.1
Rabobank	3.5	2.9
Nomura Holdings Inc.	3.4	21.0
Bear Stearns Companies Inc.	3.2	10.9
Bank of China Ltd	3.1	1.0
Banques européennes non énumérées ci-haut	26.4	2.9
Banques asiatiques non énumérées ci-haut	11.6	21.0
Banques américaines non énumérées ci-haut	9.7	10.9
Banques canadiennes non énumérées ci-haut	4.5	1.0

Source: Bloomberg and Desjardins, Economic Studies

shares held as collateral and guarantee a \$US85B line of credit to AIG, the largest insurer in the US and the third in the world.

At the same time, the US Treasury placed under conservatorship Freddie Mac and Fannie Mae, the twin pillars

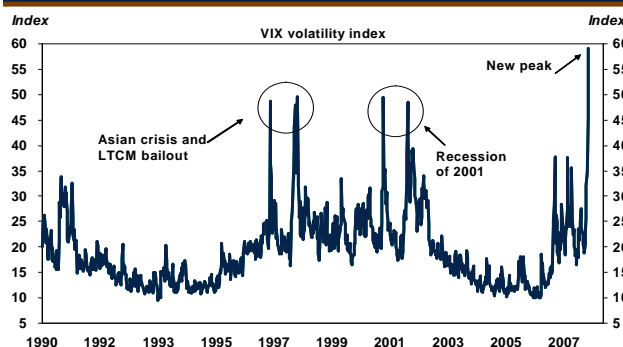
of US mortgage refinancing, and agreed to buy agencies' mortgaged-back securities on the secondary market in order to shore up the market.

Unfortunately, all of these measures failed to boost consumer confidence, and to avoid a worsening of the state of financial markets. The spectre of systemic bank failures was a sure sign that broader measures were needed and that a solution would not be reached without a swift, targeted and tough plan.

**... BROADER MEASURES WERE NEEDED**

Investors have been on a wild roller coaster ride over the past few weeks. Delays caused by congressional foot-dragging, a market tsunami that washed up on European shores and a global meltdown have made the markets more volatile than ever before (graph 1).

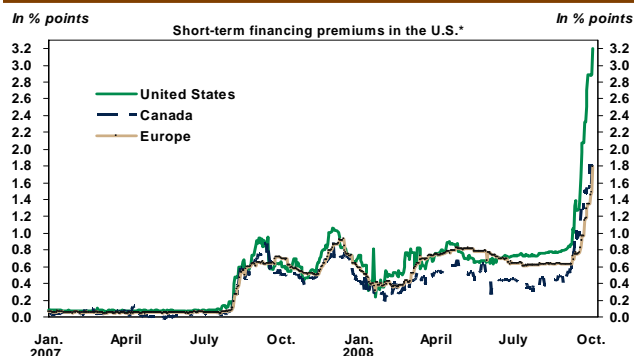
**Graph 1 – Volatility has never been so high**



Sources: Bloomberg and Desjardins, Economic Studies

The financial crisis peaked at a time when major market players had little or no confidence in the system. This, in turn, pushed money market rate spreads to almost three percentage points above the key interest rate (graph 2).

**Graph 2 – Widening financing gaps since the beginning of the crisis**



\* Gap between the 3-month Libor rate and the overnight fund rate.  
Sources: Bloomberg and Desjardins, Economic Studies

### Inset 1 Crisis Containment Measures

#### Federal Reserve

- Cumulative decreases of 375 basis points of federal fund target since September 2007.
- Introduction of several liquidity measures such as
  - Term Auction Facility (December 12, 2007)
  - Term Securities Lending Facility (March 11, 2008)
  - Primary Dealer Credit Facility (March 16, 2008).
- Helping JP Morgan buy back Bear Sterns by taking on \$29B in its books (March 14, 2008).
- Providing a US\$85B line of credit of to AIG (September 17, 2008).
- Swap lines were tripled to US\$620B (September 29, 2008).

#### Treasury

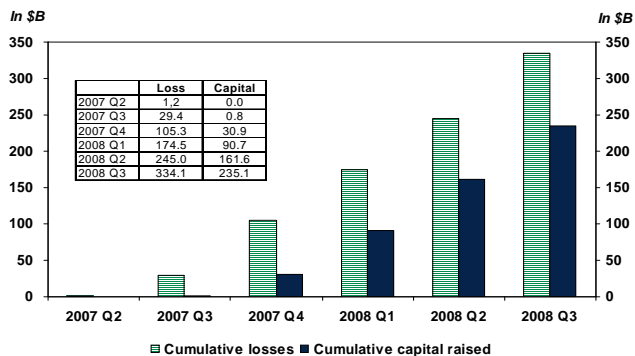
- Explicit government guarantee for Fannie Mae and Freddie Mac.
- Lines of credit of US\$100B granted to Fanny Mae and Freddie Mac (September 7, 2008).
- Agency mortgage-backed securities buyback program (September 7, 2008).
- Temporary guarantee granted to the monetary fund (September 7, 2008).

#### Government

- Enactment of the *Economic Stimulus Act* at a cost of US\$163B (February 2008).

This is explained in part by the fact that derailed financial institutions were unable to raise sufficient private capital to shore up their balance sheets (graph 3). Clearly, tougher measures were called for.

**Graph 3 – Financial institutions have difficulty raising new capital to offset their losses**



Sources: Bloomberg and Desjardins, Economic Studies

The Paulson rescue plan calls for the purchase of toxic assets held by the financial institutions (see inset 2 for additional information). Of greatest concern is the US\$ 2.500B in subprime and Alt-A loans made between 2005 and 2007.<sup>2</sup> If we estimate that that nearly 60% of these mortgages were securitized, and

<sup>2</sup> Joint Center for Housing Studies of Harvard University, *The State of the Nation's Housing 2008*.

that US\$585B of losses was declared to date, that leaves us with a potential US\$900B at risk. The fact that these assets are not held solely by US financial institutions means that the US\$700B made available to the Treasury would be significant enough to staunch the bleeding. The bailout consists of: \$250B to be made available immediately; a \$100B extension which could be granted without congressional approval and an additional \$350B subject to congressional approval.

#### WHAT THE PLAN MUST ADDRESS

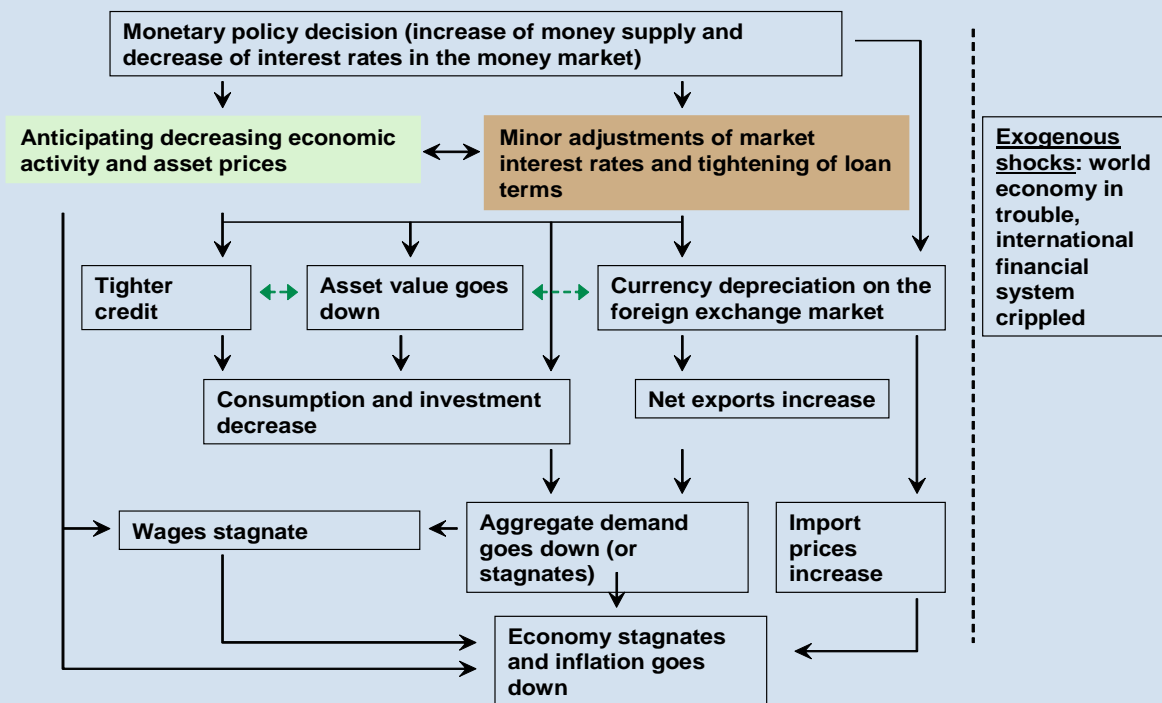
It remains to be seen how the buybacks will be handled and how this will affect the markets, but the goal is to kick start the US financial system and stabilize the credit market, all with a view to minimizing the burden shouldered by taxpayers. To that effect, there is every reason to believe that US households will not be stuck with the bill. Remember the \$700B bailout will be used to purchase financial assets that may be resold once the market has stabilized. In addition, in the event of a revenue shortfall, the President must submit to Congress a plan aimed at bridging the gap with the financial industry.

As it stands, the Paulson plan has received mixed reviews, possibly because it fails to address the heart of the problem: depreciating housing prices. A healthier banking sector may revive the credit market and help lower mortgage rates, which is crucial to the stabilization of the real estate market. However, we believe that additional measures, aimed at stemming foreclosures should be adopted. Plummeting housing prices

**Inset 2**  
**Breakdown of the Monetary Policy**

When the financial system is crippled, the monetary policy becomes no more useful than a buoy in the desert. Despite lower key interest rates, consumer credit and investments are not encouraged, because the increase in financial risks and the cost of funds are reflected in retail prices and credit terms. The rest of the chain is obviously affected (see diagram below). Asset prices keep going down, wages stagnate, the job market deteriorates, etc. In addition, household and business confidence is low and suggests that the transmission channel that hinges on expectations is also deficient. The exchange rate channel is the only one that seems to be working well. A depreciating dollar and an improved trade balance helped shield economic growth up to now. However with a world economic slowdown on the horizon, the value of a weak dollar seems to be declining. In short, in situations like these, there is little hope that a concerted intervention by large central banks would have brought back confidence to the markets. Yet if it does not get to the heart of the problem, the effect could only be short-lived.

**Inadequate transmission of the expansionary monetary policy**



prompt more and more homeowners in negative equity to default on their mortgages, putting downward pressure on the price of homes and the value of mortgage shares. This vicious cycle must end. On top of the US\$300B already adopted in July to foster homeowners facing difficulties, the law foresees the implementation of new measures, but details are not yet available.<sup>3</sup>

**REAL ESTATE PLUNGE + STOCK MARKET DROP + CREDIT CRUNCH = GUARANTEED RECESSION**

In general, banks that sustain major losses are faced with higher financing costs and a contraction of their liabilities. This may be a reflection of pressure on their balance sheets to comply with mandatory capital ratios, or reduced deposits due to lack of confidence in financial institutions. In general, this leads to very tight credit conditions (graph 4).

<sup>3</sup> The housing and Economic Recovery Act, adopted 30 July 2008, establishes the creation of a US\$300B rescue fund facilitating distressed-mortgages refinancing.

**Inset 3*****Emergency Economic Stabilization Act***

This bill, which basically includes the TARP (Troubled-Asset Relief Program), was adopted by the US Congress last October 3 after approval by the Senate two days earlier. The US\$700B plan makes it possible to buy back the problem securities that are crippling the financial system. Of this amount, \$250B are immediately available, a \$100B extension is available without congressional approval and another \$350B could be granted subject to congressional approval.

The plan provides for:

- The purchase of a wide range of securities likely to disrupt the markets, including home or commercial mortgage-backed securities, mortgage loans, asset-backed securities or any other assets considered relevant.
- An insurance program on problem assets.
- The payment of interest on financial-institution deposits to the Fed.
- The coverage of deposits on money-market funds.
- Measures to limit the foreclosure process and help homeowners.

The securities purchased must have been issued before March 14, 2008, and can be purchased through direct purchase or simple or reverse auction (purchase at the lowest price). Purchases can be made until December 31, 2009.

To limit the costs for the American taxpayer, the plan provides for procedures to recover the amounts invested in the financial system bailout:

- Establishment of guarantees consisting of stock purchase warrants for the purchase of stock from participating financial institutions.
- After 5 years, the U.S. President must submit a proposal to recover the shortfall from the financial institution.
- Potential profits will be used to pay back the public debt.

Lastly, several clauses are included to ensure program control and transparency:

- Disclosure of the transaction details.
- Reports to Congress.
- Verifications.
- Set-up of a control bureau.

The amended bill approved by the President includes an improvement of deposit insurance (the insured amount goes from US\$100,000 to US\$250,000), the renewal of the tax measures and a readjustment of the Alternative Minimum Tax (AMT).

A Fed survey of financial institutions found that credit conditions have already tightened to recession levels for both business and consumer loans (graph 5).

A sharp slowdown or even a “classic” recession now appears inevitable in the US<sup>4</sup>. This is evidenced by a gradually eroding job market since the beginning of the year, and, more recently,

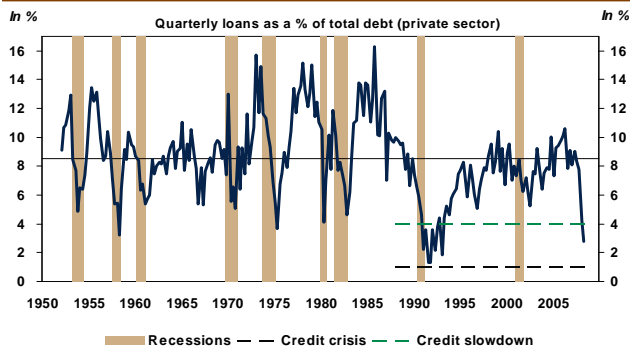
<sup>4</sup> Nevertheless, it is possible that the NBER will officialize the recession even if there have not been two consecutive quarters of negative GDP growth in the U.S.

the fall of the ISM manufacturing index to 44 points in September, to a level compatible with shrinking economic activity in the US (graph 6). In addition, real consumption should be negative in the third quarter, for the first time since the 1990 recession.

#### **COMPARISONS WITH THE GREAT DEPRESSION ARE EXAGGERATED...**

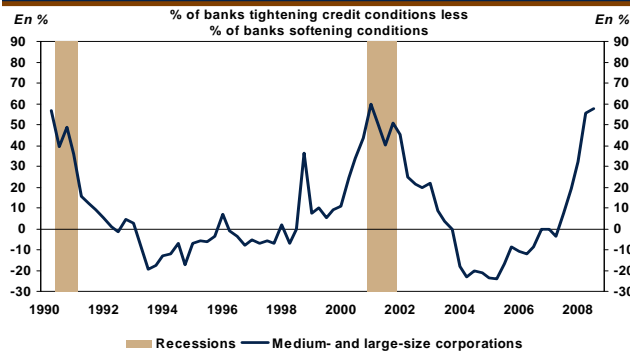
Although an economic slowdown seems inevitable, comparisons with the Great Depression (see box 4 for more

**Graph 4 – Credit difficulties have curbed loans considerably**



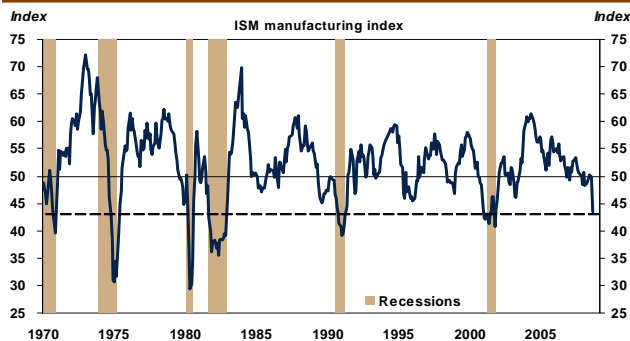
Sources: Federal Reserve Board, International Monetary Fund and Desjardins, Economic Studies

**Graph 5 – Bank credit terms are consistent with recession levels**



Sources: Federal Reserve Board and Desjardins, Economic Studies

**Graph 6 – The ISM manufacturing index is close to levels consistent with a recession**



Sources: Institute for Supply Management and Desjardins, Economic Studies

details) or the Japanese deflation of the 90s seem exaggerated. Unlike today's quick and concerted actions, a misalignment of monetary and fiscal policies marked those years.

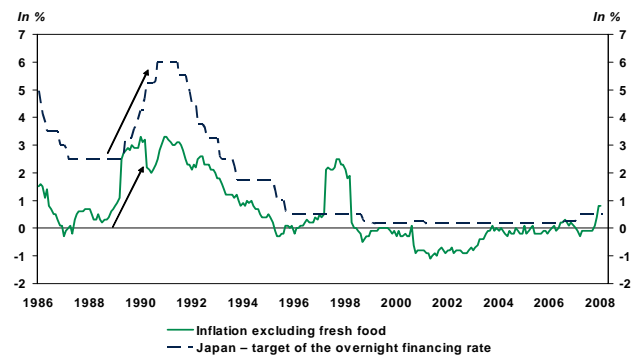
When the crisis of the 30s began, the Fed had embarked on a monetary tightening cycle to limit excessive stock-market speculation. Afterwards, controls requiring the Fed to ensure its line of credit with an equivalent amount in gold prompted

it to drop its role as a lender of last resort. A laissez-faire policy led to the collapse of a number of financial institutions, which caused a run on banks by depositors. As a result, production decreased markedly and the unemployment rate rose sharply.

**... AND THE SAME GOES FOR THE JAPANESE DEFLATION OF THE 90S**

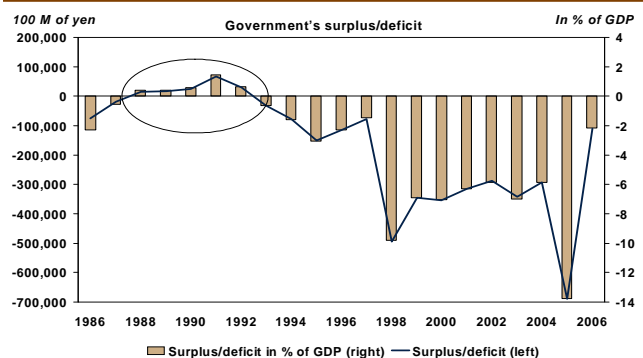
People also see some similarities with Japan as it went through a real estate crisis in the early 90s. But there again, a slow reaction on the part of monetary and fiscal authorities in assuming their responsibilities added to the problem (Graphs 7 and 8). To limit the increase of credit and inflationary pressures, the Bank of Japan maintained a restrictive monetary policy at the height of the crisis.

**Graph 7 – Japan adopted a restrictive monetary policy at the start of the crisis of the 90s**



Sources: Datastream and Desjardins, Economic Studies

**Graph 8 – Japan's fiscal policy was restrictive in the early 90s**



Sources: Datastream and Desjardins, Economic Studies

As no quick and sustained action was taken, the economic and financial difficulties went on for some ten years and brought on a prolonged deflation problem.

Because it reacted so slowly, the government was forced to take drastic fiscal measures that led to an unprecedented level of debt for an industrialized country during the post-war period.

#### **Inset 4** **Some Insight on the Great Depression**

##### **Statistics**

Length of the Decline: According to *NBER*, the decline of the economy lasted 43 months. It would have begun in August 1929 and ended in March 1933.

Decline of GNP: According to the data published by *Global Financial Data*, the GNP declined by 45% between 1929 and 1933.

Stock Market Decline: According to the Dow Jones industrial average, an 89% decline between 1929 and 1932. According to the S&P 500 composite index, an 86% decline.

Unemployment Rate: According to *Economic Report of the President* data, the unemployment rate went from 3.2% in 1929 to 24.9% in 1933.

Employment: Employment declined by over 30% between 1929 and 1933.

Inflation: According to *Global Financial Data*, the price drop between the high of 1929 and the bottom of 1933 was in the -27% range. Between 1930 to 1933, the average yearly price fluctuation was -6.75%.

##### **The Difference between Today's Situation and the Great Depression**

- Central banks know much better how the economy works and the impact they can have on it.
- During the Great Depression, the monetary policy remained very restrictive.
- Today's central banks fulfill their roles as lenders of last resort.
- Deposit insurance along with other measures help to maintain confidence in the financial system.
- We are not forced to adhere to a fixed exchange rate tied to gold.
- The market correction was much more important at that time (a negative wealth effect more harmful to the economy)
- Social safety nets are in place today.
- Government expenditures increase in crisis situations.
- Households can often count on more than one source of income.

It is only with the adoption of a substantial contingency plan that Japan began to see the light at the end of the tunnel.<sup>5</sup>

#### **NO QUICK RECOVERY, BUT A LENGTHY STAGNATION PERIOD**

The economy is unlikely to slide into either severe recession or deflation. A more probable scenario is several quarters of stagnant growth, followed by a modest upswing in 2009. The Paulson plan does not resolve all the problems in one fell swoop. Once the banks put their balance sheet in order, they

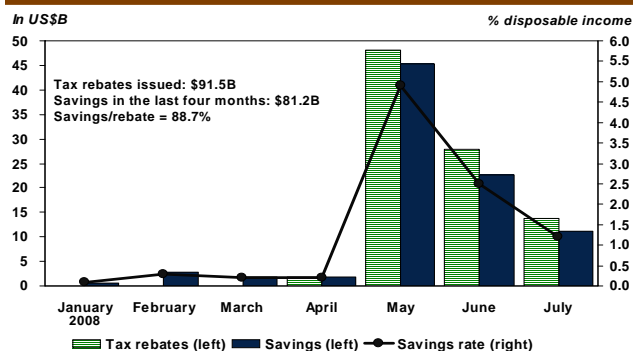
should begin to trust each other more and exchange funds again under terms that are closer to normal. However, house prices continue to go down in several countries while household and business confidence remains depressed. As for banks, they will remain cautious in granting new loans. So, a quick recovery in consumer spending and investments cannot be expected in the coming quarters.

On a more positive note, the Paulson plan will help improve the effectiveness of the monetary policy. It will rebuild the confidence of markets, which should curb speculative downward movements. On the real estate market front, prices should soon level off due to the low number of housing starts and the sales increase due to the price drops already observed,

<sup>5</sup> See *Economic Viewpoint* "Financial crisis: neither the first nor the last", October 3, 2008.

the gradual improvement of credit conditions and a recovery, although rather timid, of the economy. Government measures to help American households refinance their homes and limit foreclosures will also be appreciated. Yet it should be surprising that a new \$150B fiscal plan like the one announced last spring will be implemented in the U.S. The effects of this plan affected mostly savings and not consumer spending (graph 9). Lastly, it will be necessary to keep an eye on measures adopted elsewhere in the world in order to avoid a global slowdown.

**Graph 9 – Savings, including debt repayment, eats up almost all of the tax rebates**



Sources: Bureau of Economic Analysis and Desjardins, Economic Studies

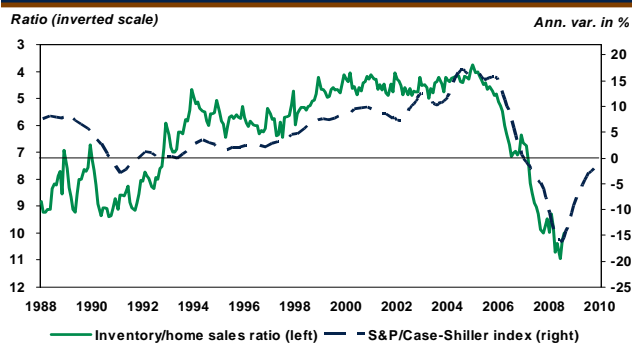
**CONCLUSION**

Adopting the Paulson plan was essential, but it may just be the first step of global effort to resolve the question. Because of the magnitude of the crisis and its worldwide ramifications, the real conclusion could only come through a response plan developed jointly by all industrialized economies. A first stage, consisting of a monetary easing, was carried out recently. All that will be left will be to see how European economies will come up with their own “Paulson plan” and what will be the next steps taken by the U.S. government.

The next measures needed to help bail out financial markets and the economy should focus more on the problem of bringing down house prices, refinancing problems and foreclosures (graph 10). This could translate into recapitalization plans for problem institutions, a refinancing of mortgages through fixed rates or other actions on the real estate market to restore the balance between supply and demand and stabilize prices. These measures should be more complex to implement from a technical standpoint. This brings us back to one great benefit in the Paulson plan: the implementation costs are low and action can be taken quickly on a centralized and well structured market.

There will eventually be changes in the rules and regulations and increased supervision of financial markets. For many analysts, the magnitude of the current crisis is in part attributable to this type of element.

**Graphique 10 – Home prices will continue to go down**



Sources: Standard & Poor's, Census Bureau, National Association of Realtors and Desjardins, Economic Studies

All is sure is we should not expect a rapid upturn. As the Treasury Secretary Henry Paulson said recently,

*“Patience is also needed because the turmoil will not end quickly and significant challenges remain ahead. Neither passage of this new law nor the implementation of these initiatives will bring an immediate end to current difficulties”.*

Therefore, prudence remains of the essence.

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