

## The worst economic crisis since 1929 is rekindling the age-old ideological debate among economists Who will have the final word: classics, monetarists or Keynesians?

Differences in opinion among economists are well known. In economics, basic assumptions, estimation methods, adjustment or transmission mechanisms are all up for discussion. And while economic science continues to evolve, it also consolidates; some subjects of debate disappear, but there are always points at issue that remain ripe for discussion and debate.

The current financial and economic crisis has breathed new life into an age-old debate many had thought extinct. After decades of domination by monetarist-inspired doctrines and using monetary policy as the key tool to smooth out economic cycles, governments and some experts determined that expansionist fiscal policies were just what was needed to kick-start the world's major economies. However, not all the experts are bolstered by this renewed confidence in fiscal policy. Its effectiveness is cast in doubt and there are concerns about its negative impact on the economy in the long term. Monetary policy itself is also criticized—it appears as though it too is not infallible. Moreover, the quantitative monetary easing sanctioned in several countries following interest rate cuts has stoked some concerns about inflation.

This *Economic Viewpoint* provides a brief summary of some major schools of economic thought and their main points of dissent. The spotlight will then shift to differing opinions on how to soften economic cycles and concerns about the outcome of this crisis. Lastly, things being what they are, it is difficult to accurately predict who will get the last word when the global economy will reach its cruising speed again. The current macroeconomic framework, where monetary policy is applied and controlled according to target inflation, should remain in place. However, the debates will continue for some time; some shortcomings will be brought to light while new ways of thinking and doing things could emerge. The world of finance and economics is growing increasingly complex and new challenges are already on the horizon, which will only fuel a whole new round of discussions.

### MAJOR SCHOOLS OF THOUGHT The classics

The classical school of economic thought was initiated by the forefathers of modern economics<sup>1</sup> and many economic theories put forth then are still in use to this day. Classical economists espoused the *laissez-faire* approach and did not support fiscal policy. They considered the State inefficient and the source of market distortion. To them, monetary policy

appeared equally inefficient. In fact, according to classical thought, the interest rate is set by the capital market, not the money market. As such, any increase in the money supply only leads to higher prices, with no effect on the real economy. Moreover, the followers of classical economics consider joblessness as something that is completely voluntary since the unemployed simply do not want to work for the wages the market is willing to pay.

The classical school of thought led to two extensions: neo-classical economics and the new classical theory. The neo-

<sup>1</sup> Adam Smith (1723-1790), David Ricardo (1772-1823), Thomas Malthus (1766-1834), John Stuart Mill (1806-1873), etc.

**François Dupuis**  
Vice-President and Chief Economist

**Yves St-Maurice**  
Director and Deputy Chief Economist

**Francis Généreux**  
Senior Economist

**Martin Lefebvre**  
Senior Economist

**Hendrix Vachon**  
Economist

514-281-2336 or 1 866 866-7000, ext. 2336  
E-mail: [desjardins.economics@desjardins.com](mailto:desjardins.economics@desjardins.com)

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classical school of economics stems from the Marginal Revolution at the end of the 19th century. They were the first to use the concept of *marginal utility*<sup>2</sup> to determine the value of goods, and their work was supported by advanced mathematical concepts. The new classical economy—founded on neo-classic principles—was developed in the 1970s. Drawing on rigorous microeconomic principles, complex macroeconomic models were derived from the actions of rational agents that were modeled themselves by the microeconomy. Rational expectations<sup>3</sup> are also high on the list.

### The Keynesians

The crisis of 1929 shed light on the insufficiencies of classical thought to explain the macroeconomic imbalances (graph 1). British economist John Maynard Keynes<sup>4</sup> challenged several principles, including the idea of voluntary unemployment and the neutrality of money. His theory shows that an economy can suffer from a high unemployment rate during a long period of time, and that market mechanisms alone are not enough to correct the tide. Wage rigidity, especially for downward adjustments, prevents the labour market from self-adjusting, as spelled out by classical thought. For its part, the non-neutrality of money means that changes in the money supply affect the real economy. The interest rate is set by the money market and plays a pivotal role in Keynes' theory. In addition, since prices are presumably rigid in the short term, an increase in the quantity of money does not instantly

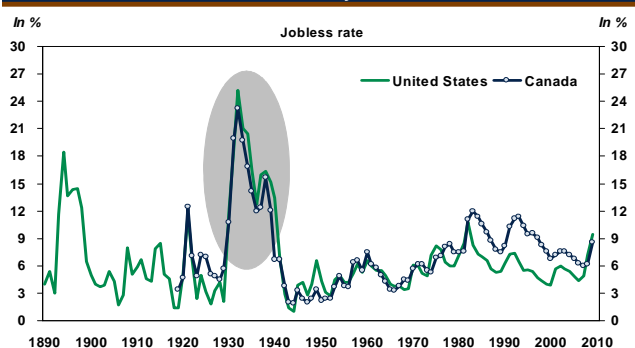
translate into inflation. Keynesian thought also focused on the “animal instinct” of businesses that, in periods of weak demand, lose all motivation to keep investing. State intervention, through increased spending or tax cuts, can nonetheless stimulate aggregate demand.

The reach of the Keynesian school of thought extends to the post-Keynesians, the neo-Keynesians and the New Keynesians, with the post-Keynesians believing that their model mirrors Keynes' main ideas the best. The second group, also called the school of disequilibrium, defends the distillation of Keynes' and neo-classical theories. The focus is on the microeconomic foundations of the macroeconomy. The non-voluntary character of unemployment is maintained by integrating basic neo-classical principles with imperfections in the labour market as an explanation why full employment isn't reach. This trend was first initiated by John Hicks in the 1930s, who also developed the IS/LM model<sup>5</sup>. The New Keynesians, however, draw their inspiration from just a few Keynesian ideas only, and oppose to excessive government intervention. The main points on which they agree are: money is not neutral, and imperfections in the market, like wage rigidity and asymmetric information, explain fluctuations in the economy.

### The monetarists

In the 1950s, economist Milton Friedman<sup>6</sup> wanted to counter the dominance of Keynesian thought by rehabilitating the classical quantity theory of money that shows a close link between inflation and the money supply (graph 2 on page 3). Unlike the classics, however, Friedman accepted the idea of price rigidity in the short term, which helps raise the assumption of money's neutrality. Moreover, Friedman defended a stable demand function for money, allowing him to conclude that inflation could be controlled by controlling the growth of the money supply. In fact, for monetarists, inflation is first and foremost a monetary phenomenon. Friedman also thought that money was too important a variable to be left to State control. Instead, he favoured implementing a strict rule for monetary growth, at 5% per year for example, which would meet the rising demand for money associated with economic growth and low and stable inflation.

**Graph 1 – Classical theory did little to explain the high jobless rate in the early 30s**



Sources: Statistics Canada, Global Financial Data and Desjardins, Economic Studies

<sup>2</sup> The marginal analysis relies on marginal changes in economic variables. *Marginal utility* refers to the usefulness of consuming an additional unit of a same good or service.

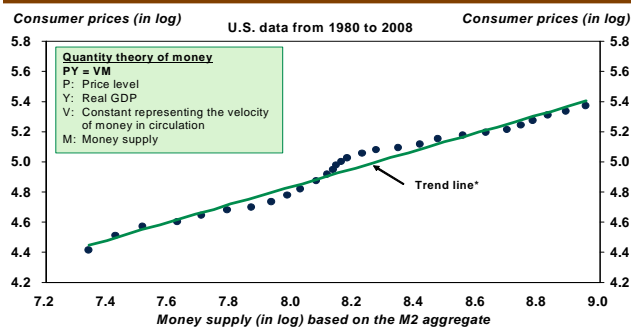
<sup>3</sup> Rational expectations imply that economic agents use the full range of information available and faultless reasoning to develop their expectations. Adaptive expectations, unlike rational expectations, are more naive and based on past information.

<sup>4</sup> John Maynard Keynes (1883-1946). His main work, *The General Theory of Employment, Interest and Money* was published in 1936 and outlined the basic principles of Keynesianism.

<sup>5</sup> John Richard Hicks (1904-1989), British economist and American economist Kenneth Arrow were awarded the Nobel Prize in Economic Sciences in 1972 for their work on general economic equilibrium theory. The *IS/LM* model developed by John Hicks defines a relation between interest rates and income. The *IS* curb represents situations in which investment (*I*) is equal to savings (*S*); and the *LM* curb, where the demand for money (*L*) is equal to the money supply (*M*). This summarizes the relationship between the economy and the money market as described in Keynesian theory, but presented within a neo-classical framework.

<sup>6</sup> Milton Friedman (1912-2006), American economist, was awarded the Nobel Prize in Economic Sciences in 1976.

**Graph 2 – According to the quantity theory of money, monetary growth leads to price hikes**



\* In practice, changes other than those in price levels and money supply make this relationship appear unstable.  
Sources: Datastream and Desjardins, Economic Studies

Throughout his career Friedman proposed additional interesting theories, like the theory of a natural unemployment rate and the theory of permanent income. The last of which challenged the idea of increased consumption following a temporary rise in income as prescribed by a Keynesian model when applying fiscal policy.

Contrary to classical or Keynesian thought, there has been no evolution to neo- or new monetarists. The Chicago School<sup>7</sup>, where monetarism first became entrenched, evolved toward the new classical theory and even rejected some of the monetarist findings by taking into account rational expectations. In fact, a noteworthy development of monetarists has been achieved in the field of international macroeconomy with the monetary approach to balance of payments. This theory explains the deficits (surpluses) in the current account by a money supply deemed too high (weak).

### MANY DEBATES

As we can see, economists share widely differing views on how the economy operates. The points of dissension may involve the rigidity of wages and prices in the short term, the neutrality of money, the fashioning of expectations and market imperfections. Sometimes the dissension involves formulating equations or debating causality links. For example, the monetarists criticized the function of consumption in Keynesian theory. But the monetarists have had to deal with their share of criticism as well. Their founding theory assumes, among other things, a stable demand for money, which is refuted by the Keynesians. Friedman's monetarist theory was also criticized by the generation of classical thinkers, who followed him to the University of Chicago and who challenged replacing the adaptive expectations with rational expectations

<sup>7</sup> Non-official group of economists associated with the Department of Economics at the University of Chicago who share a more liberal way of thinking based on neo-classical theory.

that discredit the monetary illusion in the short term. This simply means that individuals do not feel wealthier if there is more money in circulation since they know that prices are bound to rise: the monetary policy becomes inefficient.

The wide-ranging opinions on the economy lead to even more differences on the best policies to target economic stimulus. The new classical thinkers are somewhat reticent about any form of intervention, unlike Keynesians, who are viewed as endorsing the use of budgetary or fiscal policies, while completely side-stepping the idea of socialism. As soon as a crisis passes, the State must, in principle, snap back to its original size and dwell on how to pay off the accumulated debt. The Keynesians are also open to a monetary policy that calls for varying interest rates, but they are against the idea of a fixed rule for monetary growth. For monetarists, it is clear that fiscal policies have little impact. The magic of this tool lies in the multiplier effects that rely on the consumer's response to a temporary spike in income, among others. The crowding out of investment is another shortcoming decried by several economists when the State increases its level of interventionism. In fact, when the government has to borrow to increase its spending, this has an impact on interest rates and, by extension, on the volume of investment. The monetarists would prefer to have a set rule that limits the growth of the money supply than any other type of intervention.

### REACHING A CONSENSUS ON MONETARY POLICY

Initially, Friedman did not see the need for the State to interfere in the economy, even using the monetary tool. He believed that money was too important a variable to be subjected to any manipulation, even with the best of intentions. As far as Friedman was concerned, the ideal monetary policy begins and ends with one set rule for monetary growth.

These days, central banks would clearly not be satisfied instituting such a simple rule. Modern history has witnessed too many troubles while trying to ensure constant growth, regardless of the target monetary aggregate. The monetarist assumption of a stable demand for money was questioned. Structural changes in payment methods or financial innovations can partly explain this instability<sup>8</sup>. Economist Nicholas Kaldor<sup>9</sup> provided a more general explanation, stating

<sup>8</sup> For example in Canada, in the 1970s, the increase in the quantity demanded for M1 monetary aggregate was much softer than demand for larger aggregates. The M1 aggregate is limited to demand for fiduciary money and demand deposits while other aggregates include a higher volume of monetary assets. Daily interest chequing accounts, automatic transfers between chequing and savings accounts are among the innovations that have contributed to growth in money demand for larger aggregates, to the detriment of demand for assets included in M1.

<sup>9</sup> Nicholas Kaldor (1908-1986), British economist associated with post-Keynesian economics.

that there is no clear line that differentiates liquidity, in other words, what exactly constitutes money and what does not. Regardless of how we define money, we will always be able to find many instruments of varying degrees of liquidity to use as a substitute.

After trying to apply the monetarist mindset that called for limiting monetary growth, most central banks in industrialized countries and in some emerging countries simply adopted targets for inflation. This does not represent a 180 degree departure from Friedman’s basic idea. First of all, a specific inflation target is in itself a set rule, if all efforts are genuinely made to uphold the target. Furthermore, the ultimate goal of monetarist theory is to prevent inflation in the first place! It’s the means that differ. Instead of setting targets for monetary growth, the central banks adjust interest rates to either stimulate or slow down the economy which, by extension, allows them to control inflation (figure 1 on page 5). The fact that today several central banks act independently from government moves us even closer into monetarist territory. The mechanics of this, however, are shifting somewhat closer to Keynesian thought. As neo-Keynesian Franco Modigliani<sup>10</sup> had stated, what set those of the monetarist school apart, and the true bone of contention with non-monetarists, was not monetarism itself but the role we assign to stabilization policies. Monetarists prefer targeting inflation, by far.

### TARGETING INFLATION INSTEAD OF THE UNEMPLOYMENT RATE

Monetarism’s real victory lies in the fact that officially speaking, the fight against inflation is a more worthwhile battle than the fight against unemployment. Usually, the difference does not cause much of a problem since unemployment rises at the same time inflation falls; both are the result of less economic activity and vice versa. Yet when stagflation occurs, in other words, when unemployment and inflation occur concurrently, monetarists tend to become even more suspicious of unfavourable price changes, while their Keynesian counterparts will worry more about the effects of a protracted period of high unemployment. The Keynesians defend the assumption of hysteresis which suggests that a high jobless rate has long-term consequences on the labour market and the economy overall<sup>11</sup>.

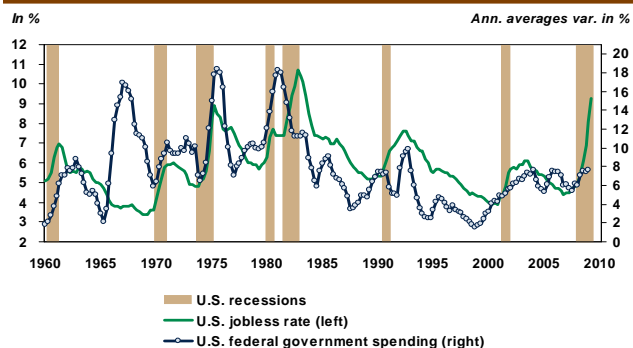
<sup>10</sup> Franco Modigliani (1918-2003), Italian-American economist, won the Nobel Prize for Economic Sciences in 1985.

<sup>11</sup> According to the hysteresis assumption, recessions can leave an economy permanently scarred due to the impact of unemployment on the unemployed, who can lose a portion of their skills, their know-how and their ability to find a job, even after a recession. At the same time, a long period of unemployment can change a person’s attitude toward work, such that the individual may hope to work less. Due to this fact alone, recessions permanently hinder the job search process, which contributes to stretching a higher unemployment rate for a longer period of time.

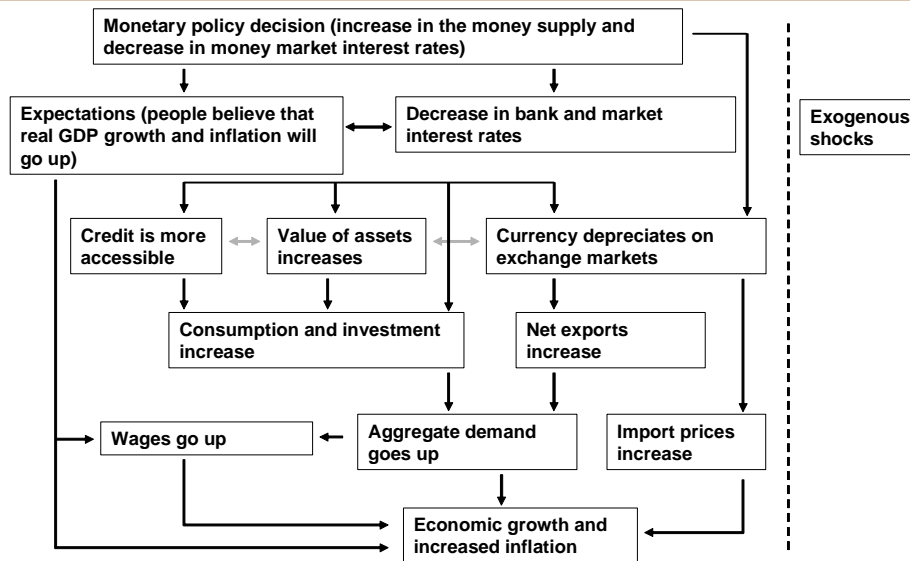
Targeting inflation has been extremely effective for more than 15 years now in several countries, including Canada. Economic growth has benefited from price stability which, by extension, favours weak unemployment (see box 1 on page 5 for benefits of low, stable and predictable inflation). Furthermore, once the credibility of central banks has been established and inflationist expectations are well entrenched, managing the situation becomes that much easier, requiring adjustments that are less significant and especially less expensive for the economy and society as a whole. The recessions in the early 1980s and 1990s were partly the price we had to pay to reduce the inflation rate. The expectations of low and stable inflation were not well rooted in the population, and so interest rates were increased more significantly and the economy came to an abrupt halt to correct the situation.

Even though the monetarist mindset has been in control for the past few decades, Keynesian thought was not completely tossed aside. Most of the Keynesian mechanics, including its analysis framework, remain relevant and are still in use today. In fact, despite the lack of a target unemployment rate, several government policies specifically target job creation and economic growth. Employment insurance, training and job search programs attack unemployment head on or try to mitigate its adverse effects. In addition, and without actually realizing it, the State acts like an automatic stabilizer on economic cycles. When the economy is bad, tax inflows decline, but the government still spends the same amount and sometimes even more to support business and individuals affected by the slowdown or the recession (graph 3). Government programs designed to inject significant sums of money into the economy, like the current economic stimulus packages we’re hearing about, are much less the norm however.

**Graph 3 – Government spending is usually adjusted upward in time of economic difficulties**



Sources: Department of Commerce, Bureau of Labor Statistic and Desjardins, Economic Studies

**Figure 1 – Transmission of expansionist monetary policy**


Source: Desjardins, Economic Studies

### Box 1 Benefits of low, stable and predictable inflation

Low inflation allows consumers to better track changes in prices for different products and services. Consumers can therefore make better decisions and ensure the most effective allocation of their resources.

Price stability reduces the costs related to protection against inflation. This keeps interest rates lower than in periods of uncertainty or high inflation. Investment and consumption both benefit as a result.

Consumers and businesses are better able to plan long-term projects when inflation is low, stable and predictable, since they know their purchasing power will not erode over time.

A stable and low rate of inflation strengthens itself. When businesses and individuals are convinced that the inflation rate will be kept at a stable level in the medium and long term, they are less inclined to react to short-term price fluctuations. Workers' wage claims and price increases by business tend to track inflation that is targeted by a monetary policy. Lower inflation expectations facilitate the fight against inflation.

Low inflation protects individuals' purchasing power when incomes are not rising at the same pace as prices: this is especially true for seniors and those who receive government benefits, since these benefits are not always indexed to the cost of living. The government can also benefit from inflation to increase its tax revenues by not indexing taxation tables based on inflation, which penalizes taxpayers.

### **EXCEPTIONAL GOVERNMENT INTERVENTION WAS DEEMED NECESSARY**

The fact is the United States is more inclined to turn to stimulus programs than other countries. At the start of this decade, President Bush called for drastic tax cuts to stimulate the economy. We also recall the tax refund cheques sent to American homes in the spring of 2008 in an attempt to stem the drop in economic activity that was already being felt. And yet the numbers at stake then pale in comparison to the latest salvo: the Obama Plan's US\$787B stimulus package, roughly the equivalent of 5.5% of the U.S. GDP.

On many fronts, the current global crisis is in a class by itself. What was astonishing was the speed with which market conditions deteriorated sharply and the number of countries that grappled with economic declines at the same time. The G7 countries all fell into recession in 2008. The other industrialized nations and emerging countries are feeling the backlash of this crisis through sharp drops in prices for the commodities they export, through trade or their integration into the international financial system. The unemployment rate jumped, which increases the risk of widespread deflation, while annual price changes are already in negative territory in some regions. To counter the risks of too sharp a downturn, the international community reached some semblance of consensus: each country had to implement measures to kick-start their economies equivalent to at least 2% of their GDP in addition to continuing monetary easing.

In some countries, including the United States, intervention by policymakers also consisted in rescuing several large-scale financial institutions to protect the international financial system from a full-on collapse. In the wake of the shock wave created by allowing Lehman Brothers to declare bankruptcy, the authorities opted to invest hundreds of billions of dollars to rescue other large financial institutions in difficulty. Even if these measures seemed to meet the approval of most experts, some had their reservations. In addition to using up vast sums of money, governments exposed themselves to a moral hazard: businesses will take on increased risks knowing the State will deploy its safety net if they get into trouble. The "too big to fail" label affixed to several financial institutions also justified the rescue package extended to automobile giant General Motors, whose main shareholder is now the U.S. government. When adding up these interventions to economic stimulus plans, it is clear that policymakers wanted to give a significant boost to the economy when monetary policy alone was clearly not enough to get the job done.

### **THE END OF TRADITIONAL MONETARY POLICY**

Concerns have always existed about the effectiveness of monetary policies in all kind of situations. The problem with

the liquidity trap as defined by Keynesians is a good example. When households and businesses that wish to borrow have already access to the credit they need, and pessimism reaches its apex, cuts to interest rates have very little impact. When this occurs, only budgetary or fiscal policies can make any genuine contribution to jump-starting the economy. The current situation is quite different from a liquidity trap since the monetary policy's apparent loss of effectiveness does not stem only from a saturation of the demand for credit by households and businesses. It's the financial institutions, especially in the United States, that have tightened their lending conditions despite very weak key interest rates. Other than the liquidity trap and tightened credit conditions, a deflationist backdrop can also hinder the monetary policy's effectiveness by preventing real interest rates from being cut below the 0% mark and stimulating the economy to the extent required.

To remain relevant in these particular situations, central banks have to be innovative. In a speech given in 2003, when interest rates were very weak amid growing concerns about deflation, Ben Bernanke, then Deputy Governor of the Federal Reserve, paved the way for exceptional measures to be applied. Following in Friedman's teachings, Mr. Bernanke used the example of a helicopter dropping money from the sky to stir up inflation. In the end, the Fed did not have to resort to this type of tactic, but the image stuck to Mr. Bernanke.

After cutting interest rates to close to 0%, many central banks have recently turned to non-traditional tools. The famous helicopter of Ben Bernanke remains on the ground, however. The new policies put in place consist in easing measures for credit and purchasing various securities, including government bonds. The goal is to make sure financial markets have sufficient liquidities and to return credit spreads to more normal levels. Implementation of those policies also aims to avoid the deflation that would occur if debt leveraging were to be overturned too quickly and if the recession was to last too long. The inflation targets are being maintained, and it's safe to say that the central banks would not have taken such aggressive action had they anticipated the serious risks of exceeding these targets in the mid-term.

### **SEVERAL CONCERNS**

Intervention by central banks and governments raise concerns and invite criticism from some economists. A throwback to Keynesianism is often decried when a high rate of unemployment justifies the urgency to act. Debates about the policy effectiveness, the risks of inflation in the medium term and the debt load of countries also get their fair share of ink.

**Ineffective policies**

There is always the risk that stimulus policies will not produce the desired effects and some theories show just how ineffective they are. There is no guarantee that consumption or investment will take off in any sustainable fashion. Some economists already believe that several countries will have to adopt a second stimulus plan to prevent a false economic recovery, which would not bode well for public finances. At any rate, a large portion of the sums set aside for these plans has yet to be spent. Patience is the best recourse right now, especially now that “green shoots,” or signs of an economic recovery, are starting to sprout in growing numbers.

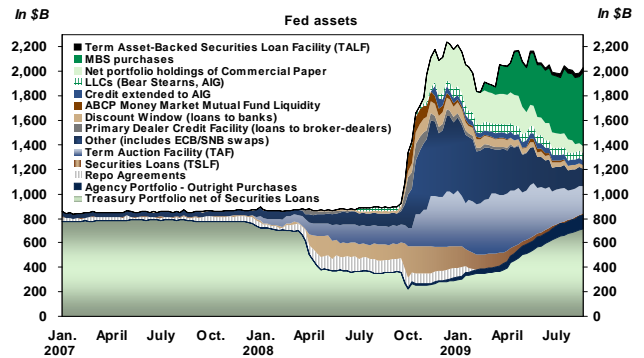
A recovery does not mean that the situation will revert to what it was before the recession, however. Several economists believe that the economy could remain sluggish as long as U.S. households have not put a significant dent in their level of debt. It’s hard to imagine the world enjoying economic growth while Americans are saving and paying down their debt! Some would love to believe that countries like China could take over. But is domestic demand in China or in other emerging countries ripe enough to take on that role? Many doubt so.

Since a period of high unemployment could linger for some time, some Keynesians are quick to recommend letting inflation go beyond its current target. A higher inflation rate would provide at least two benefits. On one hand, it would facilitate reducing household debt ratios by increasing the value of household assets. On the other hand, it would allow further reductions to real interest rates to stimulate investment. In contrast, in addition to harming creditors already deeply affected by the financial crisis, a high inflation rate could destabilize inflation expectations, and bring us back to the climate of stagflation that reigned in the early 1980s. If inflation ever spirals out of our control, we would have to put the brakes on the economy once again to cut price growth to a level that is low, stable and predictable. This is clearly not the best possible scenario.

**Inflationary concerns**

Inflation, however, could still surge inadvertently. The exceptional measures implemented by central banks have had a major impact on their balance sheets: the Fed’s has more than doubled in just a few months (graph 4). The resulting bulging monetary base is an irritant to hardcore monetarists, who doubt that inflation targets will be respected in the medium term. In principle, an increase in the monetary base causes the money supply to expand, which eventually generates inflation in the medium term according to the monetarist theory. Nevertheless, since financial institutions are granting fewer loans, the money supply is not growing

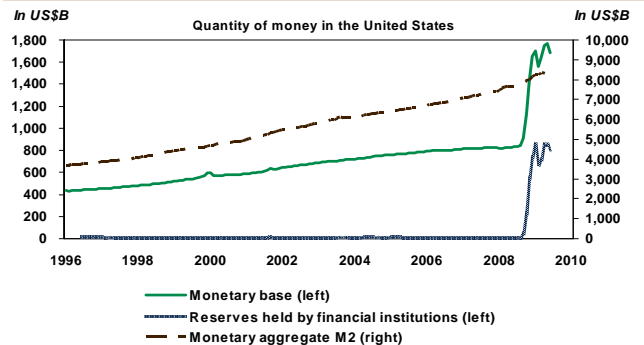
**Graph 4 – Federal Reserve’s (Fed) balance sheet shows sharp increase since October 2008**



Sources: Federal Reserve Board and Desjardins, Economic Studies

very quickly (graph 5) (see box 2 on page 8). However, this could become a more serious problem as financial institutions start granting more loans and exhausting their huge excess reserves.

**Graph 5 – Financial institutions are stocking higher reserves, limiting growth of the money supply**



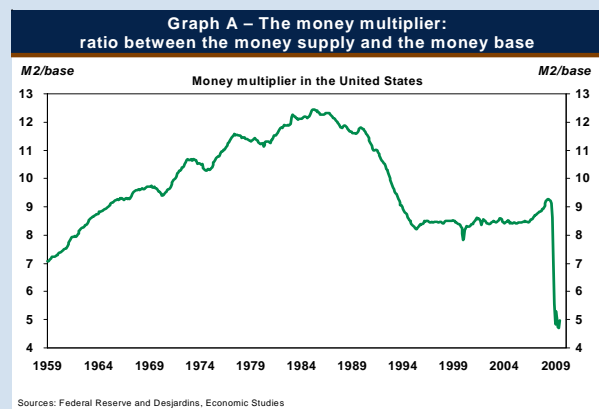
Sources: Federal Reserve Board and Desjardins, Economic Studies

Technically, the central banks would be able to prevent the worst from happening by untangling their interventions in due time, bringing their balance sheets back to a more normal level. Several measures should disappear almost automatically while the financial system continues to get better and tosses these crutches aside. We are already seeing declines in the use of some them. Others, however, could bring more difficulties. For example, the Fed has added longer term securities to its balance sheet and some of them are far less liquid, like mortgage-backed assets. Nothing says these securities will be easy to sell when the time comes to do so. Nevertheless, in the worst case scenario, the U.S. Treasury could always buy back some Fed assets to prevent further growth of the money supply and inflation, but this would lead to greater public debt.

**Box 2**  
**Money multiplier**

Creating money is a complex process and, unlike what some may think, financial institutions themselves create most of the money in circulation, not the central bank, which only controls the volume of liquidity it allocates to the financial system. Other than that, the system itself is in charge! More specifically, money is created each time a financial institution extends new loans. A substantial portion of these loans ends up as new deposits which can be used to grant new loans and so on. When the central bank increases credit within the financial system using the funds it generates, this simply increases the financial resources that fuel this chain of events. However, the quantity of liquidity injected by a central bank is not the only determining factor. The volume of reserves held by financial institutions, or the money held in cash, also has an impact on the money creating process.

It is interesting to analyze this situation using the concept of the money multiplier, which is the ratio between the money supply and the money base (graph A). The money base is defined as the sum held by financial institutions in reserves at the central bank and the sum of cash in circulation. For a given country, it also corresponds to the liabilities of the central bank. All things being equal, any increase in the money base leads to a proportional increase in the money supply. However, changes in the desired level of reserves can influence the multiplier and change the ratio between the money supply and the money base. Increasing the reserve coefficient decreases the money multiplier and, in this type of situation, having the money base soar is less of a concern (see demonstration below).



Namely:

$B$ , the money base defined as the sum total of cash (banknotes and coins) in circulation ( $C$ ) and bank reserves ( $R$ )

$rc$ , the reserve coefficient, i.e. the fraction of deposits that banking institutions keep in reserve

$cc$ , the cash coefficient, i.e. the portion of demand deposits ( $D$ ) that people want to hold in cash ( $C$ )

$M$ , the money supply defined as the total amount of cash (banknotes and coins) in circulation ( $C$ ) and demand deposits ( $D$ ).

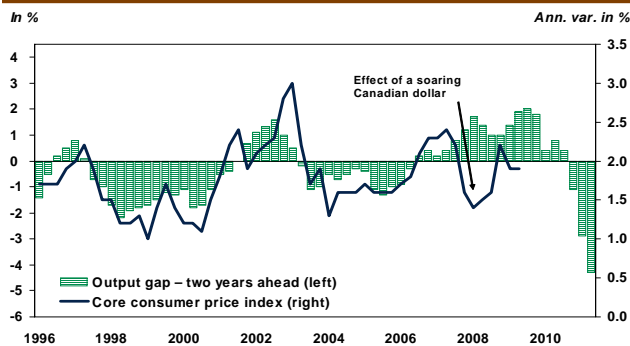
$$M = \frac{cc + 1}{cc + rc} \times B \Leftrightarrow M = m \times B \text{ where } m \text{ is the money multiplier*}. \text{ An increase in } rc \text{ reduces the multiplier } m.$$

**\* Demonstration**

$$\frac{M}{B} = \frac{C + D}{C + R} = \frac{\frac{C}{D} + 1}{\frac{C}{D} + \frac{R}{D}} = \frac{cc + 1}{cc + rc} \Leftrightarrow M = \frac{cc + 1}{cc + rc} \times B$$

Lastly, many fault the central bankers for their “overtly Keynesian” analysis of inflation that relies on the spread with the potential GDP instead of monetary growth (graph 6). When the economy is running below its potential, there are no inflationary pressures due to excess resources and capacities, and vice versa. But for those who do not share this view, there is a risk that inflation will climb before the economy moves closer to its potential. The recent rebound in commodity prices can only fuel these concerns. If these risks were to materialize, the central banks should have the courage to increase interest rates while the unemployment rate is still high. In these circumstances, the friction between those who are more concerned about unemployment vs. those preoccupied with inflation will run high.

**Graph 6 – When the economy fluctuates below its potential, inflation tends to decrease and vice versa**



Sources: Bank of Canada, Statistics Canada and Desjardins, Economic Studies

### The debt problem

The main drawback of budgetary and fiscal policies is the growing public debt. The debt/GDP ratios will fall back into worrisome territory and governments will have to muster the political courage to deal with the problem head on (graph 7). Cutting spending and raising taxes is never the most popular route, and even that doesn't take the short-term economic consequences into account. Countries around the world have

**Graph 7 – Total public debt of G7 countries set to soar by 2010**

Debt as a % of nominal GDP		
	2008	2010
Canada	63.6	77.2
United States	70.5	97.5
Japan	196.3	227.4
Germany	67.2	86.6
United Kingdom	51.9	72.7
France	67.3	80.3
Italy	105.8	121.1

Sources: International Monetary Fund (Global economic outlooks, April 2009) and Desjardins, Economic Studies

to relinquish a portion of their future growth to prevent the worst from occurring today.

The public debt problem looks like an even bigger concern because it coincides with major demographic changes that are about to take place in industrialized countries. There is a glimmer of hope, however: when hammering together government stimulus plans, temporary spending had been prioritized. Recurring expenses, like creating social programs, are hard to cut once the recession is over. Governments also favoured spending on public infrastructures that benefit society as a whole for years to come. In fact, the States that injected colossal sums in private companies that were in trouble (some U.S. or European banks and car manufacturers, for example) will eventually recoup a portion of their moneys when they decide to pull out of these companies.

### WHO WILL HAVE THE FINAL WORD?

This crisis has thrust back into the forefront debates on selecting policies to stabilize the economy, their effectiveness and their target. The extraordinary measures that were necessary to prevent the worst still come with their own concerns. And while these concerns appear well founded, the real scope of the problems that could occur depend on many factors that are difficult to predict, like the speed and ease with which central banks will be able to untangle their interventions or how economic agents will respond to the stimulus plans. Relatively speaking, the problem of high public debt seems inevitable and it is therefore more likely to have a negative impact on economic growth for the next few years.

It seems very likely that once this crisis is squarely behind us, a monetary policy based on adjusting interest rates and setting a low, stable and predictable inflation target will win out over any other measure. This approach has already been proven, and its lack of effectiveness in solving the crisis on its own is not enough for it to be challenged, especially since the surrounding circumstances are still exceptional. At most, changing the targets could be the subject of discussion. Moreover, in the future, it would be better to focus on the state of financial markets and the risk they impose on the economy. The assumption of efficient financial markets has been put to the test recently. The Keynesians, who tend to emphasize all types of imperfection in their analyses, will in the end win over some of the more mechanical aspects of our economic environment.

Economic debates will continue to rage on while new ways of thinking will emerge. The world of economics and finance is becoming increasingly complex, and other challenges are already peeking over the horizon, providing fodder for future discussions. There is already talk of rethinking the

international financial system. Countries like China, which would like to replace the U.S. dollar as the standard currency, or France that wants to reshape capitalism, have shown their hand. The design of economic models, as complex as they may be after decades of progress, is also on the discussion list: most models do not put enough emphasis on the impact of financial markets and their imperfections.

Other lines of thought are also expected to materialize soon or to gain in popularity. Some schools are conducting in-depth studies into the role the State should play in an economy. Several private companies were nationalized recently to stave off extinction and questions are bound to arise on the impact this will have on managing these companies and their profitability over the long haul. Should governments quickly divest themselves of the assets they hold in these companies? The public debt problem will surely require more than one reform, especially in view of the aging population in industrialized countries. Other schools will study the dynamics of trade: should trade be based solely on financial gain, or should it take into account fairness between workers, respect for the environment and sustainable development? It seems that the current crisis may be the wellspring of new protectionist clauses that are easier to defend with political arguments than economic ones. New markets will also break ground, like the carbon market. How are these markets going to be regulated? Who will be taking part? Are there other and possibly better solutions? There are as many questions as there are answers, and unanimity is not on the horizon.

**Hendrix Vachon**  
Economist