Montreal
Economic Institute
Research Papers

Marcel Boyer

Senior economist at the Montreal Economic Institute
Emeritus professor of economics at the University of Montreal
Fellow at the CIRANO and C.D. Howe Institute

The economic crisis and its impact on employment

December 2009

Montreal
Economic
Institute
Ideas for a More Prosperous Nation

1010, Sherbrooke Street W.,
Suite 930
Montreal (Quebec)
H3A 2R7, Canada

Phone: (514) 273-0969
Fax: (514) 273-2581
Web site: www.iedm.org

The Montreal Economic Institute (MEI) is an independent, non-profit, non-partisan research and educational organization. It endeavours to promote an economic approach to the study of public policy issues. The product of a collaborative effort between entrepreneurs, academics and economists, it does not accept any government funding.

The opinions expressed in this study do not necessarily represent those of the Montreal Economic Institute or of the members of its board of directors. The publication of this study in no way implies that the Montreal Economic Institute or the members of its board of directors are in favour or oppose the passage of any bill.

Graphic Design: Valna Graphisme & Impression

ISBN 978-2-922687-29-5

Legal deposit: 4th quarter 2009
Bibliothèque et Archives nationales du Québec
Library and Archives Canada

Printed in Canada

Marcel Boyer

Senior economist at the Montreal Economic Institute
Emeritus professor of economics at the University of Montreal
Fellow at the CIRANO and C.D. Howe Institute

The economic crisis and its impact on employment

Montreal Economic Institute Research Paper

•

December 2009

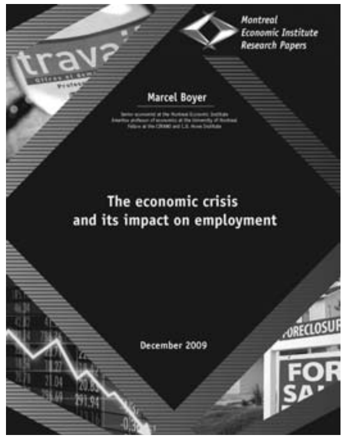
Montreal Economic Institute

Ideas for a More Prosperous Nation

Table of contents

Executive Summary

An economic recession produces its share of negative consequences: drops in the value of retirement funds, declines in the worth of real estate assets, lower corporate profits, a return to structural government deficits, and so forth. However, the most visible impact of a recession is unquestionably the job losses that are an inevitable result.



This research paper covers different aspects of the financial crisis and economic recession which began in 2007. After a brief history of the main events and an analysis of their possible causes, we tackle its most important aspect, namely the loss of confidence in the financial system. Confidence being an especially important type of social capital, the loss of confidence in the financial system, and particularly in interbank relations, precipitated the financial crisis and then the economic recession.

To re-establish and maintain confidence, four issues must be addressed: the manipulation or even falsification of information provided by public organizations and companies, especially in terms of risk measurement; political intervention in publicly owned or regulated companies and the indulgent attitude of regulators toward these companies (the cases of Fannie Mae and Freddie Mac being the most notorious); flaws in performance incentive programs, which too often neglect and thereby promote reckless risk-taking; and finally, the inflexible application of the mark-to-market accounting rule, which adds to the contagion of uncertainty in a context in which a loss of confidence is causing relevant markets to disappear.

We continue with an examination of the role of performance incentive programs in the financial sector, focusing on their shortfalls, and of the pressures by different interest groups and politicians demanding an in-depth reform of capitalism. We emphasize the serious risk of throwing out the baby with the bathwater.

We then follow with the key element of this research paper, namely the process of job creation and job loss in the economy during periods of expansion and of recession – and the creative destruction process at its core. We show, using data on gross job creation and losses, that the American economy has continued to create an impressive number of jobs during the crisis, even if it lost an even more important number.

Employment dynamics data show that in the 65 quarters from the third quarter of 1992 to the third quarter of 2008, U.S. private sector establishments created an average of 357,000 new jobs per quarter. In gross terms, these companies actually created an average of 7,863,000 new jobs per quarter, 79% of them in existing establishments and 21% with the opening of new establishments. Private sector establishments also lost an average of 7,506,000 jobs per quarter, 80% of them in existing establishments and 20% following the closings of establishments. Thus, each net job created during these 65 quarters (a period of more than 16 years) was the result of an average of 21 jobs created and 20 jobs lost in business establishments.

Despite substantial net job losses in the last few quarters, the fact remains that the private sector in the U.S. economy has continued to create a very high gross number of jobs in every industry: 7,222,000 gross jobs have been created and 7,617,000 have been lost on average in each of the last four quarters for which figures are available (from the fourth quarter of 2007 to the third quarter of 2008). When these data are compared to the number of jobs allegedly created or saved by the American government's recovery plan (about 650,000 after two quarters according to the White House), we can only observe that it is relatively insignificant compared to the gross job creation in the private sector.

In conclusion, we provide a reminder of the challenges that we face and make recommendations to avoid the same disaster.

First, refocusing the role of governments on the conditions for job and wealth creation. Indeed, when assessing the dynamics of the jobs and establishments created and lost in gross terms, one sees the economic crisis in a whole different light. Governments should focus their efforts on rebuilding confidence and developing conditions favourable to creative destruction rather than intervening directly in the economy.

Then, favour the inclusion of clauses in mortgages or other contracts to allow for continuous adjustments to economic conditions in case of recession or crisis, avoiding sudden, cascading adjustments that only aggravate poor economic conditions needlessly. They will help reduce the undesirable collateral effects of recessions.

Moreover, among the most important changes allowing for improvement in the regulation of financial institutions, mention must be made of the various microprudential and macroprudential rules that could be implemented over the coming years. We mention some of the rules that could make the regulation of the financial system more efficient and allow for possible adjustments and reorganizations without putting the system itself at risk.

Finally, governments must resist the temptation of resorting to protectionist and "buy local" measures in efforts to spur demand for local products and services, to the detriment of the cost of living and the general well-being of the population. There exists a real danger of seeing a vicious circle crop up with protectionism responding to protectionism, plunging economies into a serious slump: remember that two out of five jobs in Canada depend on foreign markets. Instead, we should seek to protect the movement toward globalization and increasing liberalization of markets. The substantial growth of international trade in the last half-century has been a major factor in the enhancement of collective economic well-being and in cultural and social development. This growth of trade has led to important gains with regard to eradication of poverty, wealth creation, economic growth and social progress.

Introduction

An economic recession produces its share of negative consequences: drops in the value of retirement funds, declines in the worth of real estate assets, lower corporate profits, a return to structural government deficits, and so forth. However, the most visible impact of a recession is unquestionably the job losses that are an inevitable result.

Even if we cannot say that the crisis is definitely over, it is useful all the same to stand back and make an initial evaluation of its causes and consequences. This research paper deals above all with the scope and nature of job losses in the United States (for reasons of data availability) and with the process of job creation and job loss not only during periods of expansion or growth but also during periods of recession.

We should remember that the U.S. economy has created millions of jobs, even in the harshest months of the current recession, and that it has also shed millions of jobs, resulting in a substantial net job loss. Before we examine this gross creation and loss of jobs, it is useful to look back at the history of the financial crisis and economic recession and at the major factors lying at the source.

1. A brief history of the crisis

In October 2008, a $700-billion plan was adopted in the United States to purchase high-risk assets and restore banks' capital. In February 2009, U.S. authorities also adopted a "recovery plan" estimated to cost $787 billion and intended to stimulate the economy through government spending. These amounts represent only part of what the U.S. government has pledged to spend in response to the financial crisis.

But what exactly has happened? In what ways can this crisis be compared to other major ones such as the 1929 crisis? What market dysfunctions does it reveal? To answer these questions, we will begin by presenting the origins of this crisis. As we will be showing, the causes of this crisis are both economic and political.

While the subprime mortgage loan crisis did not break out until February 2007, it originated in the bursting of the technology bubble in the late 1990s. To counter the decline in stock prices and the recession that followed, the U.S. Federal Reserve pursued a low-interest-rate policy to limit damage from the economic slowdown.

Low interest rates encouraged "aggressive" credit distribution. U.S. housing demand grew, leading to higher prices. Meanwhile, millions of homeowners took advantage of lower interest rates to refinance their mortgage loans. In anticipation, the banks offered additional credit, but this caused a decline in the quality of the mortgage loans provided.

In addition to sustained low interest rates, the U.S. mortgage loan market was hindered by numerous distortions and interventions by public authorities.[1] Since 1977, when the *Community Reinvestment Act* was adopted, U.S. banks have been required to offer credit to low-income households. Banks were actually subjected to heavy sanctions if they violated the provisions of this Act. This is what caused the development and proliferation of subprime mortgage loans.

With mortgage loans provided to a segment of the population characterized by inadequate incomes, poor credit ratings and little or no money for down payments, it is hardly a surprise that subprime loans were 10 times likelier than other mortgage loans to end in foreclosure.[2]

To bolster their cash reserves, financial institutions developed all sorts of financial innovations that enabled them to securitize these assets and resell them on the markets. Also, since these loans were backed by assets carrying an implicit federal guarantee through two government-sponsored corporations, Fannie Mae and Freddie Mac, these assets were seen as relatively low-risk by the investors who bought them. At the time the real estate bubble burst, these two bodies were providing guarantees on nearly half the home mortgage loans in the United States.

Starting in mid-2006, the real estate market took a nosedive: the number of houses sold and the prices of dwellings plummeted. According to data from the National Association of Realtors, the number of houses sold in the United States fell by 13.9% in 2007. From the second quarter of 2006, house prices fell on average by 3.6% in the second quarter of 2007 and by 17.9% in the second quarter of 2008.[3] For homeowners living in areas with sharp price drops, the risk of owning a house worth less than the mortgage loan taken out to pay for it became very high.

1. See Pierre Lemieux, *The origins of the economic* crisis, Economic Note, Montreal Economic Institute, March 2009, p. 3.
2. *Id.*
3. See *Pending Home Sales Index* (http://www.realtor.org/research/research/ehspage) and *Housing Bubble Graphs* (http://mysite.verizon.net/vzeqrguz/housingbubble/).

Moreover, the Federal Reserve gradually raised its rate from 1% to 5.25% between 2004 and 2006.[4] Households that had taken out variable-rate loans had to assume ever-higher payments even as the value of their properties was collapsing. This left borrowers facing a sharp rise in monthly payments, and the most vulnerable of them were unable to cope.

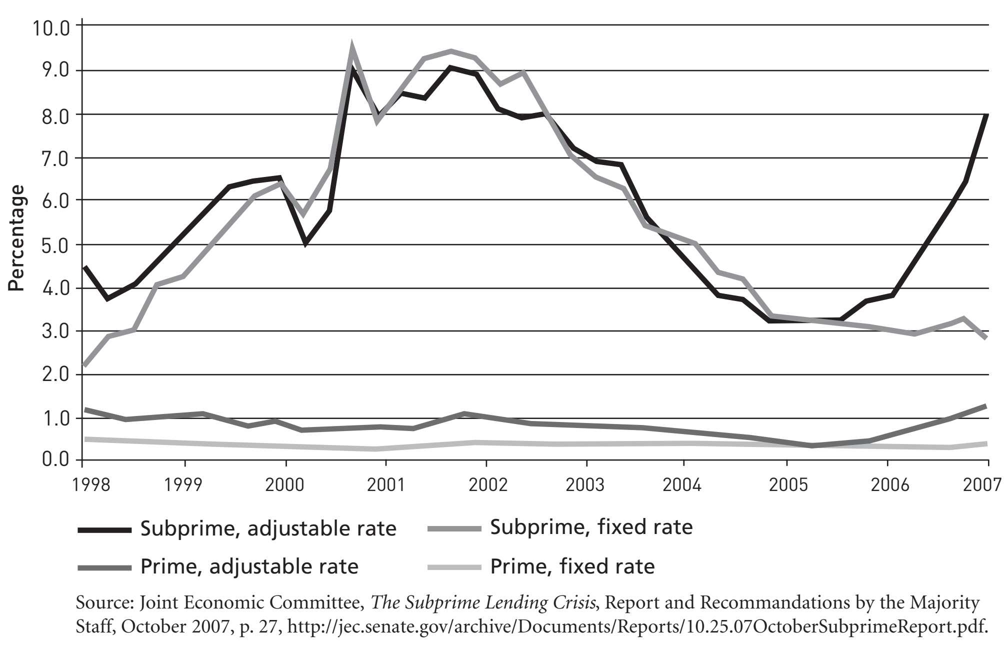
Defaults on mortgage loan payments began to proliferate early in 2007, leading to some initial bankruptcies among specialized banking institutions.[5] It was in this context, in June 2007, that investment banker Bear Stearns announced the collapse of two speculative funds. The subprime crisis had burst upon the scene.

4. Federal Reserve, *Open Market Operations*, http://www.federalreserve.gov/fomc/fundsrate.htm.
5. RealtyTrac, *U.S. Foreclosure Activity Increases 75 Percent in 2007*, January 29, 2008, http://www.realtytrac.com/ContentManagement/PressRelease.aspx?channelid=9&ItemID=3988.

But is this crisis real or virtual? The number of mortgage borrowers in default remained, in general terms, within limits that seemed acceptable and manageable. The variable-rate subprime mortgage rate market did undergo serious difficulties, with a 21% default rate in January 2008[6] and a 25% rate in May 2008,[7] compared to a 14% average for the 2000-2007 period (with an exceptional improvement to 11% from 2004 to 2006). But even then, it is hard to understand why the financial markets panicked.

6. Federal Reserve, *Financial Markets, the Economic Outlook, and Monetary Policy*, January 10, 2008, http://www.federalreserve.gov/newsevents/speech/bernanke20080110a.htm.
7. Federal Reserve, *Mortgage Delinquencies and Foreclosures*, May 5, 2008, http://www.federalreserve.gov/newsevents/speech/Bernanke20080505a.htm.

Figure 1.1
Comparison of prime versus subprime foreclosure rates, total U.S. (1998-2007)



Source: Joint Economic Committee, *The Subprime Lending Crisis*, Report and Recommandations by the Majority Staff, October 2007, p. 27, http://jec.senate.gov/archive/Documents/Reports/10.25.07OctoberSubprimeReport.pdf.

The very great majority of households continued to meet their mortgage commitments. Overall, the mortgage loan default rate went from 5% in the 2000-2007 period to slightly over 9% in 2009.[8] This was hardly sufficient to cause or justify the panic and its vicious circle, especially with the U.S. population growing at a solid pace (up 21.3% since 1990), thereby boosting housing needs. Once liquidity and confidence return to normal, today's bargain hunters will benefit from sizable gains, partly due to the mark-to-market rule which, in fact, does not reflect current reality accurately.

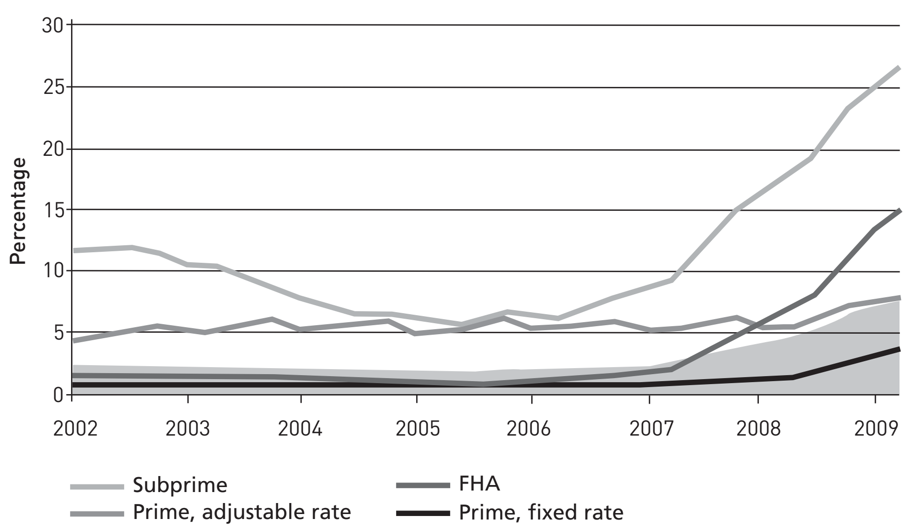
Despite the difficulties facing the subprime mortgage loan market in the United States, it seems unlikely that this problem alone could have generated a worldwide financial crisis reaching the scope of what we have seen and are still experiencing today, despite some renewal of stability. While the subprime crisis served to trigger the financial crisis, we need to look elsewhere for its true cause.

The subprime crisis subsequently spread to other sectors of the economy through various channels. The first of these lies in the phenomenon of debt securitization, a practice that has grown substantially since the early 2000s. Securitization is a financial operation that consists of a bank reselling its debt on specialized markets, often bundled with other assets. This strategy enables banks both to refinance themselves and to reduce their risk. Risk is thereby transferred to the investors who buy this debt. These securities are then purchased by others, including traditional investment funds and funds of a more speculative nature.

8. Mortgage Bankers Association, *Delinquencies and Foreclosures Continue to Climb in Latest MBA National Delinquency Survey*, Press release, May 28, 2009, http://www.mortgagebankers. org/NewsandMedia/PressCenter/69031.htm.

Figure 1.2

Seriousy delinquent mortgages by type of loan (percentage of loans that are 90 days or more delinquent or in foreclosure)



Source: John Carney, "Prime Mortgage Foreclosures Outpacing Subprime!," *Business Insider*, August 21, 2009.

Banks seeking to increase their cash reserves for the subprime mortgage market turned to the securitization of subprime credit through instruments referred to as asset-backed securities (ABS). However, they did not stop there: they took ABS packages and combined them to form more complex products called collateralized debt obligations (CDO). With the fall in the U.S. real estate market, subprime risk made any security with this type of backing (ABSs and CDOs) appear suspect, leading to their collapse as the banking panic took hold. This panic came to embrace all types of securitization.

The second way the crisis spread was through investment funds that had themselves bought securitized debt. Subprime loans provided high returns because borrowers had to pay higher interest rates. For investors, these securities looked worthwhile because they helped boost their investment funds' returns and thus their bonuses. Hedge funds, always on the lookout for high returns, were especially fond of these securities. When the underperformance of subprime securities became more serious, some depositors asked to get their investments back, and creditors refused to renew some lending.

The collapse in value of two investment funds run by U.S. bank Bear Stearns, revealed on July 17, 2007, gave the signal that a crisis of confidence had set in. All investment funds then became suspect. On March 16, 2008, U.S. banking giant J.P. Morgan bought Bear Stearns for $236 million, assisted financially by the Federal Reserve. On July 13, 2008, the two government-sponsored mortgage refinancing corporations, Freddie Mac and Fannie Mae, also received support from U.S. federal authorities.[9]

The failure of negotiations on the takeover of Lehman Brothers and its bankruptcy filing on September 15, 2008 – the event marking the real start of the crisis – precipitated its development by destroying much of the capital stock of confidence in the financial system. Following the takeover of Merrill Lynch by Bank of America the same day, the U.S. government, in the face of a potential meltdown, decided to bail out AIG two days later through an $85-billion investment.

Finally, the third way the crisis reached the rest of the economy is related to the fact that these investment funds belonged to, or were financed by, the banks (hedge funds were financed with little equity and plenty of borrowing). The banks thus had to assume the risks they had sold or transferred to these funds. In the end, the entire banking system was supporting credit-linked risks not only in the funds the banks were financing but also in those they were managing.

This crisis, which began with subprime mortgage loans, thus spread to all asset-back bonds, endangering the companies insuring or reinsuring municipal and real estate bonds. The *coup de grâce* came when interbank lending, which lies at the heart of the financial system, was thrown into disarray by the fact that the banks were no longer showing confidence and were holding onto their funds to steady themselves and avoid bankruptcy. The central banks then injected unprecedented amounts, accepting an unusually broad range of collateral in exchange for the loans provided to a record number of banks.

9. Despite a 2002 study released by Fannie Mae which argued that is was very unlikely that the two government-sponsored enterprises would ever require a government bailout. See: Joseph E. Stiglitz, Jonathan M. Orszag and Peter R. Orszag, "Implications of the New Fannie Mae and Freddie Mac Risk-based Capital Standard," *Fannie Mae Papers*, Vol. 1, Issue 2 (March 2002).

2. Loss of confidence in the banking system

Remarkable developments in modern finance have led to a considerable decrease in the level of systemic risk we face. This risk reduction has been achieved by a broadening of the possibilities for diversification thanks to the globalization of financial markets. It has also been achieved by developing new risk management tools such as insurance products, credit default swaps and other derivatives. These developments have enabled economic agents to reduce the probability and severity of potential difficulties through more diversified and better targeted protection and hedging strategies, both before and after problem events. At the same time, these developments in modern finance have raised the level of systemic risk because market interdependence means an eventual crisis can only be worldwide.

The economic crisis is a crisis of confidence in a part of our societies' essential common infrastructure, namely the financial system. A company can be shut down, but it is hard to get by without a highway or communications system. Similarly, we cannot manage without an efficient and accessible financial system.

Various financial innovations have enabled institutions and businesses to hold securities (asset-backed commercial paper or other types) as lucrative substitutes for traditional bank deposits. These are usually very liquid and as such are seen as near money.[1] When these securities lost their liquidity, a contagious level of mistrust developed, leading to a devaluation of assets, in turn exacerbated by overly rigid mark-to-market rules. It was as if a large part of the money supply had vanished, causing a liquidity crisis. This lack of liquidity led to a race for cash and thus to a credit crisis, generating higher counterparty risk (in other words, the risk that a debtor will not honour his debt).

Despite intervention by central banks, loss of confidence and fear of economic failure became widespread: banks, like many other businesses, sought to shore up their reserves and to increase their capital base, making credit conditions tighter (higher borrowing costs and rationing of credit) in a context in which counterparty risk, and thus risk premiums, had risen considerably.

Intervention by the U.S. Federal Reserve, through its monetary policy, was directly apparent in response to this situation: the total reserves of deposit-taking institutions went from about $47 billion on September 10, 2008 (a normal level in recent years) to $653 billion on November 12, 2008, and $904 billion on January 14, 2009.[2] As well, the monetary base went from a normal level of $845 billion on September 10, 2008, to $1.476 trillion on November 12, 2008, and $1.742 trillion on January 14, 2009.[3]

Interbank confidence became so weak that the crisis, at first purely a banking crisis cooked up from scratch by financial innovation "geniuses" who proved inept in the economics of incentives and organizations, spread to the entire economy. Confidence is an especially important type of capital in the financial sector, relying essentially on promises and on the rule of law: a bank deposit is worth little unless the depositor is confident that he can withdraw his funds whenever he chooses.

A favoured tool for attempting to re-establish confidence was the massive injection of government capital in the banks. This injection poses some problems of its own. First, much of the new capital was used to prop up bondholders,

1. Bank deposits as a percentage of GDP have dropped quickly around the world, falling in the U.S. from nearly 18% of GDP in 1965 to less than 5% in 2005. See Robert E. Lucas Jr., *The Current Financial Crisis*, Universidad Torcuato di Tella, December 9, 2008.

2. Federal Reserve, *Aggregate Reserves of Depository Institutions and the Monetary Base*, October 29, 2009, http://www.federalreserve.gov/releases/h3/hist/h3hist4.pdf.

3. *Id.*

reducing the availability of loanable funds by a comparable amount. Next, if the securities market were to continue its collapse, the same scenario would resume at a potentially exorbitant cost to taxpayers. Finally, governments would come under increasingly strong pressure to inject capital into non-financial private companies that were in difficulty, a nascent vicious circle that could lead to a value-destroying spiral throughout the economy.

Confidence is the most important form of social capital, because it provides for a sizable reduction in a broad range of transaction costs within a society. The current financial market crisis, which is fundamentally a crisis of confidence within the banking sector in general, brings this issue to the forefront.[4]

Confidence is a form both of private capital and of social capital. As such, developing and maintaining it pose difficult problems of coordination and incentive. It is a form of private capital, because a company will benefit from its partners' confidence, But the confidence created privately in this way will have positive repercussions on confidence toward all businesses. This social effect is important enough for the public authorities to take particular responsibility in watching over the development and maintenance of this capital of confidence.

Four issues must be addressed. First, the manipulation or even falsification of information provided by organizations and companies, especially in terms of risk measurement, is an initial pernicious factor that can destroy the social capital that confidence represents. A second issue results from political intervention in publicly owned or regulated companies and the indulgent attitude of regulators toward these companies (the cases of Fannie Mae and Freddie Mac being the most notorious). A third issue arises from flaws in performance incentive programs, which too often neglect and thereby promote reckless risk-taking. In the context of the current crisis, these three factors are front and centre. The picture is rounded out by the inflexible application of the mark-to-market accounting rule, which adds to the contagion of uncertainty in a context in which a loss of confidence is causing relevant markets to disappear.

To the extent that the social confidence capital results from the behaviour of companies and individuals in response to their capital of private confidence, it is vital for its development to be overseen and promoted by appropriate regulations. These regulations will be all the less costly that managers embody and share values of honesty and intellectual rigour not only in producing goods and services but also in producing and conveying information to all their partners. And these values of probity will be all the more prevalent and widespread if the regulations promoting them are effective and rigorous.

For there to be hope of getting out of the current slump, there is a need to tighten the disclosure of information on risk, to ensure the independence of regulators and, as a way of achieving this, to make greater use of private regulatory bodies, to promote a better understanding of an effective structure of performance incentive mechanisms, and to loosen the mark-to-market accounting rule in light of the net present value (NPV) economic rule.

4. At the January 2003 Davos World Economic Forum, where I was invited as a speaker, one of the main themes of discussion involved re-establishing and developing confidence within and toward the business world. This followed a wave of major bankruptcies and financial scandals.

3. Inefficiently designed bonus systems

In the wake of the financial crisis, large brokerage firms and investment banks paid out record bonuses to their managers, the very people who had put them in serious trouble. According to New York state's comptroller's office, Wall Street firms paid $33.2 billion in bonuses in 2007, about the same amount as in 2006, while the shareholder value of the seven biggest firms fell by more than $200 billion. For example: Lehman Brothers raised its bonuses by 10% in 2007, bringing them to $5.7 billion, and was bankrupt in September 2008. What if these bonuses were among the causes of the financial crisis?

The incentive mechanisms used in the financial services industry in particular reward income generated almost regardless of risk, with negligent and faulty risk measurement and unjustified risk-taking as predictable results. This is where we stand.

A number of economists warned companies against these practices, reminding them that, in designing incentive mechanisms, it is necessary to take account of the risks taken or incurred to avoid what economists and insurers call "moral hazard." Economists specializing in performance incentives have been suggesting for a number of years that bonuses be made conditional on risk audits to penalize, rather than reward, exceptional financial results relying on reckless risk-taking.[1]

But there seems to be light at the end of the tunnel. In the rescue of Fannie Mae and Freddie Mac, the managers, shareholders and bondholders of these government-sponsored enterprises, which were overly dominant in mortgage credit and were protected by indulgent regulators, have taken a beating. The government will be paid back first. And these companies can no longer benefit from their political relationships to hide mismanagement: the door is closing! While the horse may be gone, at least the colt will be kept in the stable.

According to one analyst, banks have replaced their traditional "originate and hold" model with a new "originate and transfer" model under which they lend and then sell the debt to someone else.[2] The more widespread adoption of this new model may be a factor responsible for the crisis. However, the phenomenon of securitization is not new: banks have been following this practice for nearly 30 years without causing crises. What has changed in the last decade has been growth in securities backed by subprime mortgages which are traded so often that a major problem of transparency ends up arising.

This practice led to the creation of a class of capital around which it becomes enormously difficult to establish who is assuming fundamental risks. This particularity has distorted incentives in six different ways.

First, mortgage brokers' fees are based solely on the number of mortgage loans provided, without the risk of default taken into consideration. Brokers thus had no incentive at all to look into the risks linked to subprime mortgage loans. On the contrary, they had incentives to provide the greater possible number of mortgage loans regardless of the risk level they presented.

Second, lenders had no incentive to check the quality of the mortgage loans granted, given that they intended to bundle and resell these assets in the form of complex derivatives. In the years before the crisis broke out, these institutions increased their subprime mortgage loan offerings, reselling them to investors looking for higher returns.

---

1. See Bernard Sinclair-Desgagné, "How to restore higher-powered incentives in multitask agencies," *Journal of Law, Economics, & Organization*, Vol. 15, Issue 2 (July 1999), pp. 418-433.
2. Paul Mizen, "The Credit Crunch of 2007-2008: A Discussion of the Background, Market Reactions, and Policy Responses," *Federal Reserve Bank of St. Louis Review*, September/October 2008, pp. 531-568.

Third, the profits generated by securitization of these products gave lenders an incentive to offer the greatest possible number of loans regardless of their quality. With demand for mortgage loans declining, lenders lowered their requirements to keep growth in the number of loans constant.

Fourth, "tranching" has allowed for the creation of different classes of bonds, with senior and subordinated classes, each intended for different types of investors. The argument justifying the creation of these classes is very simple: creating subordinated classes theoretically improves the quality of Class "A" bonds, even bringing the apparent probability of losses on this class down to a very low level and reducing financing costs correspondingly. Asset-backed bonds thus obtained high ratings from the rating agencies even though in fact they were just a combination of risky, highly leveraged mortgage loans.

Fifth, rating agencies got a majority of their income from rating structured products. There was thus a risk of conflict of interest because these agencies received lump sum payments from the issuing institutions to establish ratings for these products while advising these institutions on the issuing of the same products.

Finally, fund managers, like mortgage brokers, were motivated by the perspective of bonuses that were not sufficiently or adequately corrected on the basis of the risk level incurred.

4. Reforming capitalism: beware of sorcerer's apprentices!

In the wake of the economic crisis, a number of voices have been raised to demand an in-depth reform of capitalism. Even if one admits the need for certain credit practices to be better regulated (subprime mortgage credit among others), an understanding of how these practices arose is required before solutions can be developed.

We already know two of the primary sources of the troubles that have been encountered. First came U.S. government economic policy, especially after the bursting of the technology bubble at the turn of the century and the events of September 11, 2001. This policy favoured programs of easy credit, thanks to abnormally low interest rates. Next came undue pressure from some members of Congress on the government-sponsored enterprises Fannie Mae and Freddie Mac to the benefit of subprime mortgage loans. These companies were led not so much to underestimate the risks of certain financial transactions but rather to close their eyes to these risks.

Governments should stop pretending to be sorcerer's apprentices, too often driven by good intentions that can only have catastrophic results. It is hard to believe that current proposals to reform capitalism will lead these governments to impose added restrictions on their own actions! Quite the contrary is true: these reforms will expose us to the risk of seeing governments getting involved inefficiently in the micromanagement of private companies, whether or not in the financial sector.

In effect, although the crisis has hit hard at many financial and industrial markets, the outstanding economic growth of the last 25 years should not be forgotten.[1] From 1981 to 2007 (before the crisis), the U.S. economy created 45.6 million net jobs, a 45% increase. The Canadian economy outside Quebec saw a net rise of 4.5 million jobs, a 53% increase, while the Quebec economy produced 1.1 million jobs, up 38%. During these same years, real per capita gross domestic product (GDP), a relatively reliable measure that allows for comparisons of standard of living gains over time, rose 66% in the United States, 55% in Canada outside Quebec, and 46% in Quebec. After this is corrected to take account of differences in the cost of living, Canada's per capita GDP, which stood at 92.1% of the U.S. level in 1981, came to 82.4% of the U.S. level in 2007. Thus, before the crisis began, Canada had lost ground compared to the United States, as had France, Italy, Germany, Japan and Sweden, while South Korea, Norway, the United Kingdom, Spain and Portugal made noticeable gains compared to the United States.

It is obvious that the last quarter-century was outstanding for the U.S. economy in terms of living standards. While some reforms may be needed in how capitalism operates in the U.S. and elsewhere, it is vital to avoid the very real risk of throwing out the baby with the bathwater. The market economy and its corollaries, freedom and responsibility, remain, in view of the facts, the best guarantees of development and higher living standards. As such, they are the most effective way to eradicate poverty and underdevelopment.

In this regard, various commentators have responded to the clearly disastrous results produced by financial institutions by challenging their structure, their governance and the competence of their managers, and they have demanded firmer government intervention. Some have acted like Monday morning quarterbacks: knowing now how markets have acted during these 18 months of great volatility, they say things

1. See Marcel Boyer, *Performance et développement économiques du Québec : les 12 travaux d'Hercule*, CIRANO, forthcoming (November/December 2009).

should have been done differently, portfolios shifted, money invested here rather than there. This is too easy.

First, the quality of an investment strategy, chosen and implemented prior to a crisis, cannot be judged on the basis of results observed afterwards. Next, the desired return on an investment portfolio cannot be increased without accepting greater systemic risk: the systemic risk that is incurred and the returns that are sought rise and fall in tandem. But desired returns and actual returns are two very distinct concepts: the former corresponds to the weighted average of possible returns (weighted by their respective probability), whereas the latter corresponds to only one of the possible returns, namely the one that was actually observed. Finally, taking greater systemic risk to increase the hoped-for return implies accepting poor or even catastrophic results some of the time. This is the iron law, cruel though it may be, of financial markets where risk is exchanged: once incompetence and possibilities for arbitrage are excluded, hopes of increasing returns while taking less risk amount simply to magical thinking.

To judge the quality of a financial institution's investment policy, it is necessary to look back and examine the decisions taken in view of the information available at that time rather than the information available now. An institution's managers discuss and establish the investment and credit strategy they will be adopting or recommending to their clients. They need to take account both of the risk level that a particular client is prepared to take and the implementation of the strategy which, depending on the chosen risk level, will maximize the desired return. It is up to individual investors, depositors or clients to establish investment policies that take account both of their long-time financial goals or commitments and of the risk they are prepared to assume.

What a financial institution and a client choose is a distribution in which each of the possible rates of return, from the lowest to the highest, is associated with a probability of fulfilment; the hoped-for return then corresponds to the weighted average of these possible returns. The quality of an investment strategy lies in implementing or reflecting the goals correctly, through an appropriate choice of securities. Afterwards, only one of the possible returns will be observed. A very high-quality basic strategy can generate poor, average or excellent results when all is said and done.

At the same time, it is important not to ignore the perverse effects of policies aimed at compensating individuals and companies who lost money after their strategies failed. That will have the effect of creating distortions in risk assessment by individuals and companies. In short, expecting a rescue will mean that it will be "less risky to take risks" and will certainly not encourage investors to be more careful in the future.

5. An underestimated phenomenon: creative destruction at work

Creative destruction is one of the most important mechanisms in growth and in wealth creation. It constitutes the process underlying the continuous job losses that allow for equally continuous job creation in what are often the most promising sectors or most productive businesses.

To the extent that recovery plans launched by various governments aim above all to preserve existing jobs, they can cause serious harm to social well-being by preventing the adjustments produced by creative destruction in the commercial and industrial fabric of economies. We will look at creative destruction from four angles, namely the number of jobs, the number of establishments, the number that are getting bigger or smaller, and growth or decline in employment based on company size.

Number of jobs

In the 65 quarters from the third quarter of 1992 to the third quarter of 2008, U.S. private sector establishments created an average of 357,000 new jobs per quarter.[1] In gross terms, these companies actually created an average of 7,863,000 new jobs per quarter, 79% of them in existing establishments and 21% with the opening of new establishments. Private sector establishments also lost an average of 7,506,000 jobs per quarter, 80% of them in existing establishments and 20% following the closings of establishments. Thus, each net job created during these 65 quarters (a period of more than 16 years) was the result of an average of 21 jobs created and 20 jobs lost in business establishments.

In these same 65 quarters, an average of 18,000 net new U.S. private sector establishments were opened in each quarter. In gross terms, U.S. private businesses opened an average of 337,000 new establishments, responsible on average for the creation of 1,646,000 new jobs, and they closed an average of 320,000 establishments per quarter, responsible for an average loss of 1,523,000 jobs. Thus, each net new establishment that was opened was the result of an average of 19 establishments opening and 18 closing, with an average of 133,000 net new jobs created per quarter.

Also in the same 65 quarters, U.S. private companies created an average of 6,524,000 new jobs per quarter, 53% of them in companies with fewer than 50 employees and 18% in companies with 1,000 or more employees. They also lost an average of 6,142,000 jobs per quarter, 54% of them in companies with fewer than 50 employees and 17% in companies with 1,000 or more employees. Thus, of the 382,000 net new jobs created on average per quarter, 35% were created in companies with fewer than 50 employees and 29% in companies with 1,000 or more employees. A majority of the jobs created or lost, 53% and 54% respectively, were in companies with fewer than 50 employees.

1. The data used in this section come from the Business Employment Dynamics database of the U.S. Bureau of Labor Statistics. At the time this paper was written, the available data covered the 65 quarters from the third quarter of 1992 to the third quarter of 2008. Canada does not produce similar data.

Table 5.1
Jobs created and lost in U.S. private sector establishments
(in thousands)

	Jobs created	Jobs lost	Net jobs
4th quarter 2007	7,676	7,564	310
1st quarter 2008	7,130	7,400	(270)
2nd quarter 2008	7,258	7,751	(493)
3rd quarter 2008	6,822	7,754	(932)

Table 5.2
Openings and closings of U.S. private sector establishments
(in thousands)

	Openings	Closings	Net number
4th quarter 2007	382	360	22
1st quarter 2008	357	380	(23)*
2nd quarter 2008	355	391	(36)*
3rd quarter 2008	349	379	(30)*

* For the first time in 16 years, there was a decrease in the number of establishments in three consecutive quarters.

Table 5.3
Jobs created and lost in U.S. private businesses
(in thousands)

	Jobs created	Jobs lost	Net jobs
4th quarter 2007	6,248	5,997	251
1st quarter 2008	5,738	6,040	(302)
2nd quarter 2008	5,860	6,336	(476)
3rd quarter 2008	5,465	6,450	(985)

Table 5.4
Proportion of jobs created and lost in U.S. private businesses by size

	Job created		Jobs lost		Net jobs (in thousands)	
Company size	<50	>1000	<50	>100	<50	>1000
4th quarter 2007	53%	19%	55%	17%	(24)	193
1st quarter 2008	56%	15%	56%	17%	(157)	(145)
2nd quarter 2008	54%	17%	54%	18%	(251)	(169)
3rd quarter 2008	55%	16%	52%	19%	(376)	(361)

In looking at the data for the third quarter of 2008, we can see that 6,822,000 jobs were created by U.S. private sector establishments, while 7,754,000 jobs were lost. In net terms, there was thus a loss of 932,000 jobs in three months. This number of jobs is clearly quite considerable, but when compared with the gross number of jobs created during the same period, it is nonetheless relatively low. As regards the number of openings and closings of establishments, 349,000 establishments opened their doors while 379,000 closed shop. In net terms, this represents a decline of 30,000 private sector establishments in the United States for the third quarter of 2008.

In the third quarter of 2008, there were thus more jobs lost than created. If we look more closely at the data, we see that job losses do not exceed job creation in all industries. Job losses were concentrated in certain industries, and the same applies to job creation. From July 2008 to September 2008, gross job losses exceeded gross job creation, except in three industrial sectors: natural resources and mining, utilities, and education and health services. This illustrates the fact that some industries are declining in importance while others are gaining in scope in the U.S. market.

In goods-producing industries, new or expanding establishments were responsible for creating 1,397,000 new jobs, while establishments that closed or reduced their workforces caused a loss of 1,767,000 jobs. This net loss of 370,000 jobs represents the ninth consecutive quarter of net job losses in these industries, a phenomenon that began well before the recession.

As regards the construction industry, gross job gains fell to 698,000. This is the lowest level of job creation in this sector since the first quarter of 1993. The construction sector suffered a net loss of 178,000 jobs, even though gross job losses also fell, to 876,000. This was the sixth consecutive quarter of net job losses in this sector.

As for the manufacturing sector, 425,000 jobs were created while 636,000 were lost during the third quarter of 2008. The net loss of 211,000 jobs represents the ninth consecutive quarter of net job losses in manufacturing, a phenomenon that also began well before the recession.

In the service sectors, gross job gains fell to 5,425,000 and gross job losses climbed to 5,987,000, resulting in a net loss of 562,000 jobs. In the retail trade, gross job gains fell to 892,000. Gross job losses also fell, to 1,062,000, for a net loss of 170,000 jobs. This is the largest net loss in this industry since 1992, resulting from the lowest level of gross job gains in the history of this series.

Finally, gross job losses exceeded gross job gains in the financial sector for the sixth consecutive quarter. There were 376,000 new jobs compared to 460,000 job losses, resulting in a net loss of 84,000 jobs in the third quarter.

On the other hand, gross job gains in the private education and health care sectors rose slightly to 799,000 in the third quarter of 2008, while gross job losses fell to 706,000. This sector is the only one showing a net positive change in each quarter since the series began in 1992.

Thus, despite sizable job losses in the last few quarters, the fact remains that the U.S. economy continues to create a very large gross number of jobs in all industries, despite the number of jobs that are created remaining lower than the number of jobs lost.

Despite numerous job losses since the crisis began, the Canadian and Quebec economies remain relatively robust. In Quebec, the sectors most affected remain the retail trade and business, building and other support services. Looking at changes since 2000, we see that manufacturing has undergone major job losses, even though in 2008 there was a slight increase in the number of jobs in this sector.

In Canada, the sectors hit hardest by job losses in 2008 were manufacturing, transportation and storage, and information, culture and recreation. As in Quebec, manufacturing has experienced major job losses since 2000. This leads us to believe that job losses are not necessarily linked to the economic crisis but rather to a change in the structure of the labour market.

Table 5.5
Annual variation in the number of jobs in Quebec

(in thousands)	2000	2001	2002	2003	2004	2005	2006	2007	2008
Overall economy	**74.7**	**37.4**	**129.7**	**58.9**	**51.7**	**36.8**	**48.1**	**86.3**	**30.0**
Employees (excluding self-employed workers)	**83.2**	**68.5**	**130.7**	**42.0**	**50.5**	**17.0**	**49.4**	**36.7**	**39.7**
Public sector	28.7	30.2	24.1	13.7	5.0	23.1	-2.6	15.4	9.3
Private sector	54.4	38.3	106.7	28.3	45.5	-6.1	52.1	21.2	30.5
By industry									
Goods-producing sector	**13.4**	**13.9**	**46.4**	**17.2**	**-3.9**	**12.6**	**24.8**	**29.0**	**14.3**
Agriculture	0.9	-4.6	5.1	-4.6	-6.9	10.7	4.3	0.2	-3.8
Forestry, fishing, mining oil and gas	2.4	-3.5	3.8	-1.4	-2.7	2.1	0.4	-3.0	-3.1
Utilities	0.8	1.7	0.6	0.5	1.8	-0.4	-2.1	2.6	0.6
Construction	10.5	-2.6	15.8	9.5	1.6	14.7	6.9	9.4	20.3
Manufacturing	0.6	-4.9	21.1	-21.1	2.2	-14.5	-34.4	-38.1	0.4
Services-producing sector	**61.3**	**51.2**	**83.4**	**76.1**	**55.5**	**24.3**	**73.0**	**115.2**	**15.6**
Trade	22.2	8.2	26.3	27.6	15.0	8.3	8.9	17.5	-21.4
Transportation and warehousing	10.2	4.5	-17.1	12.6	7.9	-13.3	2.8	11.2	7.6
Finance, insurance, real estate and leasing	4.0	2.9	8.7	-3.3	12.8	1.9	18.5	9.3	-1.0
Professional, scientific and technical services	-1.5	10.4	2.2	3.7	11.3	0.9	17.6	15.0	8.9
Business, building and other support services	7.8	0.9	15.1	-7.6	-0.1	13.7	9.2	7.6	-10.5
Educational services	-9.3	4.6	10.7	8.5	-7.6	7.4	17.1	-1.6	-2.8
Health care and social assistance	23,3	14.4	22.6	17.2	14.7	3.4	9.4	1.1	15.4
Information, culture and recreation	1.2	10.8	4.6	3.4	4.6	1.8	-7.5	11.5	2.9
Accommodation and food services	7.4	0.5	2.1	10.7	-7.5	7.1	-0.9	21.7	8.2
Other services	-9.3	-15.1	10.5	4.5	0.9	-6.9	-2.0	17.6	-0.9
Public administration	5.4	9,.0	-2.3	-1.2	3.4	0.0	0.0	4.2	9.3

Source: Institut de la statistique du Québec, *Variation de l'emploi par rapport à l'année précédente selon le sexe, l'âge, le niveau d'études, le lien, le régime de travail et le statut de l'emploi, moyennes annuelles, Québec, 1998 à 2008*, February 24, 2009, http://www.stat.gouv.qc.ca/donstat/societe/march_travl_remnr/parnt_etudn_march_travl/pop_active/tab12.htm.

Table 5.6
Annual variation in the number of jobs in Canada

(in thousands)	2000	2001	2002	2003	2004	2005	2006	2007	2008
Overall economy	**357.5**	**182**	**364.2**	**361.9**	**274.7**	**222.7**	**314.6**	**382.1**	**259,4**
Employees (excluding self-employed workers)	**416.7**	**279**	**326.4**	**274.6**	**223.1**	**164.6**	**328.1**	**265.1**	**244,8**
Public sector	98.6	43.6	65.4	46.9	88.5	78.6	74.6	84.8	141,7
Private sector	318	235.4	261.1	227.7	134.6	85.9	253.6	180.3	103,1
By industry									
Goods-producing sector	**79.5**	**-42.1**	**98.7**	**47.1**	**64.1**	**12.6**	**-16.5**	**7.1**	**28.3**
Agriculture	-33.9	-48.8	2.1	7	-6.4	17.7	2.7	-9.2	-10.2
Forestry, fishing, mining oil and gas	11.6	3.5	-8.6	11.3	5	19.8	23.7	9.2	0.8
Utilities	0.6	9.5	7.5	-1.4	2.8	-8	-3.3	16	13.8
Construction	43.2	14.2	40.9	40.8	45.7	67.8	50.2	63.8	98.7
Manufacturing	57.9	-20.4	56.9	-10.7	16.9	-84.7	-89.7	-72.8	-74.6
Services-producing sector	**277.9**	**224**	**265.6**	**314.8**	**210.6**	**210.1**	**331.1**	**375.1**	**231**
Trade	75.1	70	46	58.5	39.3	67.5	58.9	48.9	-3.6
Transportation and warehousing	75.1	-5.1	-24	12.5	-19.2	28.2	-8.6	-10	-52.5
Finance, insurance, real estate and leasing	-2	18.8	18.4	21.9	43.6	27.2	52.7	19.9	15
Professional, scientific and technical services	31.5	54.3	0.6	16.5	14.7	31.7	39.9	47	63.1
Business, building and other support services	32.3	0.2	42.4	29.1	21.5	24.2	35.6	12.1	-15.6
Educational services	3.4	7.5	25.8	19.7	8.6	70.4	52.3	24.8	9.6
Health care and social assistance	78	26.4	76.9	61.	54.2	1.2	50.9	60.6	57.3
Information, culture and recreation	31.6	47.3	5.7	-0.5	23.4	-2.9	9.9	37	-22.4
Accommodation and food services	24.6	5	41.9	20.4	6.9	-7.9	10.5	54.4	4.1
Other services	-28	-21.7	19.4	26.9	-16.5	-3.2	7.6	22.5	27.6
Public administration	-3.7	12.8	3.5	30.1	6.5	7.6	4.3	27.2	61.1

Source: Statistics Canada, *Labour Force Survey*.

6. Deficits and growth: friends or enemies?

In reaction to the recession, governments have bloated their deficits as they attempt to stimulate the economy. However, not only do the supposedly beneficial effects of these "recovery plan" policies arrive too late, but the improvised nature of each set of proposed measures also risks creating copious waste and harmful incentives by making businesses more concerned with their political representatives than with their markets.

It is undeniable that governments have a key role to play in developing and maintaining public infrastructure in education, professional training and continuous learning among other areas. What comes to mind in particular is infrastructure that cannot be financed effectively through fees. But governments' responsibility in this domain is no greater at a time of economic slowdown. We may rejoice at the fact that, after failing to fulfil their role in keeping infrastructure in good condition, governments are waking up during a time of economic slowdown and are finally looking after it, but this sudden awakening looks more than anything else like a sign of mismanagement.

The relationship between public deficits and economic growth is fuzzy at the very least, and the connection between them is debatable. To be convinced of this, one need only look at the Canadian experience of the 1990s.

From 1990 to 1995,[1] the Canadian government's budget deficit stood at an average of 5% of GDP, which was a major improvement over the previous five years. From 1997 up to now, these deficits gave way to surpluses. What do we know about the impact of this reversal – rather unusual among OECD countries – on growth?

1. See Industry Canada, *Making a Difference*, 2003; Department of Finance Canada, *The Economic and Fiscal Update*, 2006.

During the decade of big deficits, from 1985 to 1995, Canada had real per capita GDP growth that was much lower than that of Japan, the United Kingdom, Italy, the United States and France. During the period of budget surpluses, from 1997 to 2002, Canada's results topped the performance of all these countries. In terms of job creation, Canada also surpassed these other countries from 1994 to 2004, and the gap between Canadian and U.S. unemployment rates fell dramatically, from 4.2 percentage points between 1993 and 1996 to 1.5 points between 2003 and 2005. At the same time, the labour force participation rate and the employment rate both increased substantially in Canada compared to the United States. From these overly partial observations, it can at least be concluded that eliminating its chronic deficits enabled Canada to improve its economic performance compared to countries that continued to show large budget deficits.

It must not be forgotten that citizens and companies, as economic agents, understand that these deficits will have effects on taxation and interest rates, and thus on their borrowing costs and capital costs, sooner rather than later. There is a certain consensus among economists that discretionary fiscal policies have only a marginal effect even in the best of cases but may have caused major, long-lasting distortions that will be very costly in terms of economic efficiency.

To situate recovery plans in the economy as a whole, let us examine the case of Canada. In the finance minister's January 2009 budget speech, the government announced measures that will lead to deficits (in addition to what would have occurred without a recovery plan) totalling just under $50 billion over the next six years. These added deficits will be incurred to cover increased government infrastructure spending as well as to pay for tax reductions, some of them already announced though they did not take effect until 2009. These amounts, while impressive at first sight, are relatively marginal compared to the economy as a whole. The make-up of Canada's GDP in the third quarter of 2008 (equal to $1.64 trillion on an annual basis) shows that personal spending on goods and services totalled more than $900 billion a year, while private investment totalled more than $315 billion and public investment totalled more than $50 billion.

The Canadian government obviously should be, and should have been, concerned first and foremost with its primary missions as: (i) a good manager of public funds, achieving this by avoiding any undue bloating of its cyclical deficit; (ii) a good manager of public infrastructure, both in developing and maintaining it; and (iii) a good manager of the production of public goods and services under its authority.

It also should be, and should have been, its priority to work toward rebuilding the confidence of economic agents – individuals, households and businesses – to ensure the efficient and transparent operation of the Canadian economic system, in particular the sound operation of the financial system, under the governance of the Bank of Canada.

In times of recession as in times of growth, a strategy of budget deficits, protectionism and indiscriminate subsidies can only cause more harm than good. It is better to have a strategy favouring the necessary and efficient adjustment of prices, markets and the industrial fabric, letting companies prepare for recovery: this is harsh medicine, but it will get the patient back on its feet sustainably. Announcements of huge government expenditures may contribute to a loss of confidence by heralding an increasingly serious crisis, pushing up risk premiums and making conditions for bank credit tougher.

First, these expenditures systematically block necessary adjustments to the commercial and industrial fabric of their respective societies and economies. Well before the crisis, there was overcapacity in the automotive industry, the forest industry, the agri-food industry (in developed countries) and elsewhere. This overcapacity had to be freed up and eliminated to enable profitable companies in every sector, whether new or not, to grow. In addition, government spending is a mechanism that evicts investment from the private sector. Deficits will have to be financed and eventually repaid in some way or other. Moreover, it consumes substantial real resources, channelling them into programs that often make financial sense only on paper.

Government assistance and subsidies of all sorts are supposedly aimed at supporting private companies that must cope with intense competition or high-risk investments (while government-owned companies get permanent support on a priority basis). The millions of dollars promised to Bombardier in the summer of 2008 appear negligible today compared to the billions invested in GM and Chrysler and the many billions now being demanded by other companies in various other sectors (steel, transportation, mining, agriculture, distribution, forestry, tourism, culture, etc.) which declare that they are just as deserving as the automotive sector if not more so.

The costs and benefits of government assistance always have the same characteristics. The costs are diffuse and are spread among all citizens and the entire economy, whereas the benefits are captured by clearly identified and politically influential interest groups, including employers and unions.

Overall decisions on investment, R&D and production are distorted by these assistance programs: it starts making more sense to worry about political representatives than about competitiveness and thus about employees, customers, suppliers and rivals. This strategy is the fast track to inefficiency and eventual bankruptcy once public funds have been fully squandered.

The correct way to assess the anticipated cost of government assistance would be to hold an auction aimed at transferring the assistance contract – its guarantees, loans and other outlays along with the repayments – to a third party in the private sector. The best offer received could demand a premium or a certain level of compensation that the government should record as spending. This transparent market sanction would reassure all citizens that their government is watching over their interests rather than protecting today's precarious jobs in certain companies to the detriment of the best present and future jobs in the economy as a whole.

In the face of the current crisis, an unbridled strategy of deficits and subsidies, holding back desirable adjustments in prices, markets and the industrial fabric, risks above all delaying and weakening a return to real growth.

Conclusion: challenges and prospects

To conclude, we have gathered our recommendations under four general headings.

1. Refocusing the role of governments on the conditions for job and wealth creation

When assessing the dynamics of the jobs and establishments created and lost in gross terms, one sees the economic crisis in a whole different light. Despite substantial net job losses in the last few quarters, the fact remains that the private sector in the U.S. economy has continued to create a very high gross number of jobs in every industry: 7,222,000 jobs have been created on average in each of the last four quarters for which figures are available (from the fourth quarter of 2007 to the third quarter of 2008).

When these data are compared to the scope of government recovery plans, it seems obvious that authorities in the U.S., Canada and abroad should emphasize policies that will catalyze the creation of new jobs rather than trying to save jobs that are probably bound to disappear. The number of gross jobs effectively covered by the recovery plans – whether in the United States, Canada or Europe – fails to measure up to the scope of gross job creation in the private sector, even during the worst quarters in the recession.[1] The process of creative destruction, which occurs in periods of growth and recession alike, far overshadows the effects sought by direct government action.

This is why governments should focus their efforts on rebuilding confidence and developing conditions favourable to creative destruction rather than intervening directly in the economy. Unfortunately, the many recovery plans witnessed in the past year seem instead to have done more to damage confidence and derail the process of creative destruction, a process that favours a genuine and vigorous return to growth.

2. Modifying contracts for a gradual automatic adjustment to economic conditions

Luigi Zingales, professor of economics, entrepreneurship and finance at the University of Chicago, has suggested a two-part plan to facilitate the adjustment of mortgage conditions to major variations in housing prices.[2]

First, the government should favour the inclusion in mortgage contracts of clauses giving the owners of dwellings the option of renegotiating their mortgages downwards when the value of houses in their neighbourhood or region has fallen more than 20%. In return, the mortgage lender would receive a portion of the eventual selling price, for example 50% of the difference between the selling price and the renegotiated mortgage. This is a win-win solution compared to traditional foreclosures.

Next, to help banking institutions in difficulty, the government would make available to them a quick partial bankruptcy process under which debt (commercial paper and bonds) would be converted to equity capital and the current shareholders would see their equity liquidated while getting the option, to be exercised within seven days, of buying back the debt at nominal value. To ensure that all insolvent banks, and those banks alone, choose to make use of this bankruptcy process, short-term debt would have to be subjected to it. Insofar as holders of this debt view the bank as insolvent, they will liquidate their debt as soon as possible, causing a

1. On October 30, 2009, the White House estimated that the number of jobs created or saved due to its $787-billion "recovery" plan was 640,239. Some people involved find this estimate generous because the rules for calculating jobs are rather nebulous and favour an overestimate of the jobs created or saved. (See, for example, Michael Cooper and Ron Nixon, "Reports Show Conflicting Number of Jobs Attributed to Stimulus Money," *New York Times*, November 5, 2009, p. A16).

2. Luigi Zingales, "Plan B," *The Economists' Voice*, Vol. 5 (2008), No. 6, Column 4.

liquidity crisis and forcing the bank to use this process. Incentives are then properly aligned, and the bank will recover its financial solidity, have the ability to resume lending, and maintain all its other contractual obligations.

The strength of the process is triple-pronged. First, in case of crisis, the banking sector will be recapitalized with no injection of government capital. Second, the government does not have to determine the asset value of a bank in difficulty. Third, we avoid seeing the government decide on the future of individual banks because the market will take care of it. Prof. Zingales says it is time now for governments to implement a solution based on the operation of private markets, thereby avoiding the waste of public funds and using public force only to reorganize the banking sector quickly and efficiently.

Economist Luc Vallée, a former chief economist of the Caisse de dépôt et placement du Québec, has suggested an alternative solution. He says the government should offer each owner who occupies his or her dwelling the chance to sell a certain percentage of it to the government. But, he adds, this offer should contain incentives ensuring that only owners in difficulty can agree to subscribe to it, as defined in his proposal.

This option is interesting on several grounds. First, individual decisions on whether to accept the option offered by the government would provide important information on the quality of mortgage loans. The offer is of interest only if owners are unable to repay their loans. The financial sector would thereby be able to determine the value of mortgage blocks. Since the offer is made to all owners, this does away with the problem of determining who should benefit from assistance, a thorny problem with the assistance programs proposed by various governments. Second, the chance offered to owners to sell portions of their dwellings to the government (converting debt to equity) would bring mortgage loan payments down enough to enable many owners in difficulty to get through the crisis, and this operation would clean up the balance sheets of banking institutions. Third, this strategy would help stabilize the real estate market in case of an abrupt decline in prices since it would reduce the number of dwellings put up for sale.

Similar types of options could be included in mortgages or other contracts to allow for continuous adjustments to economic conditions in case of recession or crisis, avoiding sudden, cascading adjustments that only aggravate poor economic conditions needlessly. These options obviously will be incorporated in contracts at a certain cost to the parties. But, to the extent that enough of these adjustment clauses are effectively included in contracts, they will help reduce the undesirable collateral effects of recessions.

3. Microprudential and macroprudential rules

Among the most important changes allowing for improvement in the regulation of financial institutions, mention must be made of the various microprudential and macroprudential rules that could be implemented over the coming years.

These rules include:

- The use of interest rates (and thus of risk levels) as a weighting factor in determining the capital reserves that institutions must hold.

- The imposition on major financial institutions of higher capital reserve coefficients in normal times or in periods of sustained growth and lower ones in times of recession. Defining these reserve coefficients would enable excess capital reserves to be accumulated in favourable periods for use in supporting the economy and their operations during troubled times. It would also make sense to require the largest and most complex banks and similar financial institutions that are deemed too big to fail to hold higher capital reserves given the systemic risk they represent for the economy.

- The imposition of stress tests and outside "value at risk" calculations by the organizations responsible for the stability of national banking and financial systems and of the international financial system. These tests enable the effects of major financial shocks on the banking system to be quantified: major recessions, broad exchange rate variations, oil shocks, and sharp drops in stock prices, especially on derivatives exchanges. Stress tests must provide for determination of the critical solvency ratios that enable banking and financial systems to cope with heavy macroeconomic shocks such as an economic recession that stretches over two or three years.

- An obligation for the nationally recognized statistical rating organizations (NRSROs) to account for their assessments of probabilities of default and of losses in case of default. In addition to the reputation capital that constitutes the rating agencies' primary source of value, it can be expected that, sooner or later, these agencies will have to help clarify and describe the incentives they face and demonstrate sufficient financial capacity to deal with challenges to the quality of their forecasts and analyses, in view of the results observed.

- In the spirit of the contract adjustment clauses dealt with above, the orderly bankruptcy of the "too big to fail" banks and institutions must be favoured, with contingency plans for transferring control and sharing costs and losses.

- To avoid the muddles that result from direct and misguided intervention by political authorities in the conduct of institutions and markets, there is an absolute need to abolish enterprises that provide government guarantees and thereby promote mismanagement: these include Fannie Mae, Freddie Mac, the Federal Housing Administration and the Federal Home Loan Banks. Instead, assistance for home ownership access should go directly to the neediest.

- Finally, a measure likely to improve the governance of the large banks, with reasonable and effective control of managers by shareholders: rules on bank ownership, currently very restrictive, must be made more flexible.

4. Political and social challenges

Among the broadest and most encompassing challenges we face must be mentioned the ultimate danger of resorting to protectionist and "buy local" measures in efforts to spur demand for local products and services, to the detriment of the cost of living and the general well-being. There exists a real danger of seeing a vicious circle crop up with protectionism responding to protectionism, plunging economies into a serious slump: remember that two out of five jobs in Canada depend on foreign markets.

Instead, we should seek to protect the movement toward globalization and increasing liberalization of markets. Some people fear competitive processes not only at the national level but also in the international context. Globalization of markets is often viewed as responsible for destroying jobs (outsourcing and offshoring) in the developed economies and as favouring the exploitation of workers in the underdeveloped countries.

However, the substantial growth of international trade in the last half-century has been a major factor in the enhancement of collective economic well-being and in cultural and social development. As Indian economist and 1998 Nobel laureate Amartya Sen noted:

"Barely centuries ago, poverty and 'nasty, brutish and short' lives, as Thomas Hobbes wrote, dominated the world, apart from a few rare pockets of abundance. By overcoming this penury, modern technology and economic interaction have had their importance. Precarious situations cannot be reversed if the poorest are deprived of the considerable benefits of contemporary technology, of the solid efficiency of international trade and interaction, and of the social and economic advantages of living in an open rather than a closed society. What is needed is a more equitable sharing of the fruits of globalization." [3]

Without going into detail, it is clear that denying the phenomenal potential of world trade to enhance well-being for all comes from misunderstanding or ignorance, pure and simple, of a key element of modern economic history, namely the theory of comparative advantage formulated by economist David Ricardo.[4] The implications of this theory are implacable and inevitable, if relatively counter-intuitive. The theory states that as long as a difference exists in the comparative production costs of various goods and services observed in autarky in several countries, each country will benefit from international trade by specializing in the production and export of the goods for which they have the greatest comparative advantage or least comparative disadvantage, importing other goods in exchange. It is vital to emphasize that *all countries* will benefit from this trade, regardless of their *absolute* competitiveness.

This assertion is undeniably one of the most important results of modern economic theory. It is the foundation of free trade, of the eradication of poverty, of the creation of wealth, of economic growth and of social progress.

3. Amartya Sen, "Dix vérités sur la mondialisation," *Le Monde*, July 18, 2001.
4. David Ricardo, *On the Principles of Political Economy and Taxation*, 1817.

About the author

Marcel Boyer, senior economist at the Montreal Economic Institute (MEI), is one of Canada's best known economists. He holds a Ph.D. in economics from Carnegie Mellon University and is professor emeritus of economics at the University of Montreal. He is also a fellow at the Center for Interuniversity Research and Analysis on Organizations (CIRANO) and at the C.D. Howe Institute and sits on the board of the Quebec agency for public-private partnerships. In 1985, he received the triennal Marcel-Dagenais Prize for Scientific Excellence awarded by the Société canadienne de science économique and in 2002 the Marcel-Vincent Prize awarded by the Association francophone pour le savoir (ACFAS) for the exceptional quality of his work in social science. He was elected to the Royal Society of Canada (The Academies of Arts, Humanities and Sciences of Canada) and has served as president of the Canadian Economics Association and of the Société canadienne de science économique.

Montreal Economic Institute

Ideas for a More Prosperous Nation

ISBN 978-2-922687-29-5