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MUNK CENTRE MONITOR

VIEWS, NEWS, PEOPLE AND EVENTS FROM THE MUNK CENTRE

UNIVERSITY OF TORONTO
MUNK CENTRE
FOR INTERNATIONAL STUDIES
AT TRINITY COLLEGE

VIEW FROM THE DIRECTOR

JANICE GROSS STEIN

This last year the global financial system was at the epicentre of a serious shock. Bankers were excoriated for the risks they took, risks which rippled far and wide and nearly brought the world economy to its knees. At tremendous cost and with an extraordinary coordinated effort, governments stabilized financial institutions and worked to stimulate a recovery.

Even as the recovery begins to take hold, consumers and governments have lost their appetite for risk. Consumers are angry at the risk-taking and the risk-takers. Governments around the world are working to put in place better ways of assessing and regulating systemic financial risk in an effort to prevent another crisis. The global conversation right now is about prudence, about regulation, about transparency.

There is nothing wrong with this conversation. Indeed, much of it is right. But the heavy emphasis on assessing and regulating risk threatens the innovation which is the lifeblood of economic recovery, of the creation of new and better goods and services, and of better societies. Technological and social innovation is at the centre of economic and social progress.

The paradox is clear: Without innovation, we stagnate, but there is no innovation without risk. Every time people have an idea of how they can do something better, they take risks as they develop the idea, persuade others to work with them, test their ideas in practice, recognize and improve the flaws, and then try to take what they have done to scale so that they can make a difference. In other words, they risk failure, over and over again. And the record shows that in every sector, most innovations do fail.

Without an appetite for risk and a tolerance for failure, little changes.

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The Politics of Food

COVER STORY BY BRIAN STEWART

The deceptively cheery looking building along the Thames in London that houses Britain's famed MI6 foreign intelligence service is not usually associated with the close study of food commodity futures or how the price of rice is faring in distant village markets. In the spring of 2008, however, security analysts were warning the UK government that such prices had more potential than terrorism or regional wars to destabilize the world.

Food experts with the United Nations and US government intelligence were equally alarmed. They issued warnings that spring that at least 27 nations across Africa, Asia, Latin America, and the Caribbean were threatened by food riots and chaos that could lead to the rise of violent new movements. (As it turned out 61 countries experienced food riots.)

It is easy to forget, preoccupied as we are still with the world recession, just how much the global food crisis that immediately preceded the market crashes seriously rattled world governments. Over two years, 2007–2008, the number of people living in extreme misery as a result of poverty soared by another 200 million to bring the total to the highest amount ever recorded. One-sixth of humanity, 1.2 billion people, was malnourished and barely surviving on less than $1.25 a day.

Hunger is on the march: A Filipino protests rising prices and food scarcity outside a National Food Authority warehouse in Manila.

The extraordinary bubble in food commodity prices began spreading in early 2007. The three key global staples — wheat, maize, and rice — spiked to peaks not seen in decades. By 2008, wheat and maize hit triple the rate of five years earlier, while rice soared fivefold. Dairy products, beef, and poultry doubled in price.

What made the crisis so dangerous is the fact the world has little capacity to withstand such shocks. Developing nations saw budgets and balance of payments ravaged as they struggled to import enough food at these prices for increasingly desperate populations. The rural poor often suffered the most, but in the vast urban centres of the developing world new hardships brought rage into the streets.

Civil unrest struck not only the world poorest nations (Ethiopia, Mozambique, Haiti, Bangladesh, Yemen) but also those classified as middle income (Mexico, Egypt, Morocco, Thailand, and the Philippines). By the hundreds of thousands, protestors took to the streets from Mexico City to Bangkok. Unrest was compounded by distrust of government statements over supply, since lack of transparency in many nations made it nearly impossible to tell how much food was safe in storehouses.

In the spring of 2008, however, much of the world was stunned to learn grain stockpiles were not at 130-days supply, which was usual a decade earlier, but down to 60 days, and falling. As for rice, the staple of billions, there was no strategic reserve to calm the worst fears of acute shortages. As 80 percent of the world's population has no social safety net of any kind, fury against government is inevitable when food inflation hits such levels. Much of the middle class in Asia found itself reduced to little more than one meal a day.

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Strengthening Innovation, Restoring Prosperity

By John Manley

Remarks by the Chair of the Advisory Board of the Munk Centre's School of Global Affairs and President-designate of the Canadian Council of Chief Executives to "The Imperative for Strengthening Innovation" Symposium held at the Canadian Embassy in Tokyo in November and jointly sponsored by the Munk Centre and the Graduate Research Institute of Policy Studies (GRIPS).

As we meet in Tokyo, the global economy is moving, painstakingly, from severe recession to recovery. The past two years have reaffirmed that we are all connected. People, businesses, and governments in every part of the world have been affected in one way or another.

As a former Minister of Industry and Finance, I believe strongly in the benefits of globalization. Prior to this severe downturn, globalization of trade and investment had helped to increase incomes, create wealth, advance social progress, alleviate poverty, spur innovation and scientific advancement, and bring people, communities, cities, and countries closer together.

Unfortunately, globalization is now shouldering much of the blame for the economic woes being felt so dramatically in every corner of the world.

Designed by the Embassy of Canada, Tokyo, Japan

My first message today is that we desperately need more, not less, globalization to spur us on to a strong and sustainable economic recovery.

In fact, innovation and globalization go hand in hand. Greater innovation

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VIEW FROM THE DIRECTOR

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Brian Stewart, who has joined us as a Distinguished Senior Fellow, went back to Africa where he first reported the terrible famine in Ethiopia 25 years ago. His riveting column tells of the hardships, the slide back into famine and desperation, the undoing of economic progress. Without innovation in agriculture and in the broader social and economic context, Mr. Stewart concludes, Africa will experience famine again and again. Governments that provide development assistance and international institutions that lend to famine-ravaged countries will have to take greater risks, will have to be more open to experimentation.

John Manley, Chair of the Advisory Board of the School of Global Affairs, opened our symposium in Tokyo. In partnership with the National Graduate Research Institute on Policy Studies (GRIPS), we looked at the challenges of and obstacles to innovation. In an incisive analysis, Mr. Manley urges renewed commitment to innovation and collaboration.

Jonathan Hausman, who co-chairs the Strategic Advisory Committee for our new Master of Global Affairs, takes a close look at the proposals to reform the global financial system. These proposals are front and centre on the agendas of the G8 and the G20 which Canada will host this summer. His careful analysis selects out those that can reduce unintelligent risk and make the system safer. He worries, however, about proposals which seek to reduce risk indiscriminately. These kinds of proposals can shrink the space for the innovation that we will badly need to recover from the financial shock.

Whether the issue is famine in Africa, or rebuilding the architecture of the global financial system, or the challenge of innovation in the context of recession, innovation, and risk-taking are at the centre of any story of improvement. That some leaders in the global financial system took foolish risks should not obscure the importance of innovation, the centrality of intelligent risk-taking to the success of innovation, and the value of failure as we learn from our mistakes.

Janice Gross Stein, Director of the Munk Centre for International Studies, is an acknowledged expert on conflict resolution and international relations, with an emphasis on the Middle East. A Fellow of the Trudeau Foundation, Professor Stein has served on many international advisory panels, including the Working Group on Middle East Negotiations at the United States Institute of Peace. Professor Stein is the coauthor of We All Lost the Cold War *(1994),* The Cult of Efficiency *(2001), and* The Unexpected War: Canada in Kandahar *(2007).*

FROM WAR ZONES TO THE MUNK CENTRE

Canadian Broadcasting Corporation

Brian Stewart

Brian Stewart, former foreign affairs reporter and senior correspondent for CBC TV News, has joined the Munk Centre as a Distinguished Senior Fellow.

One of Canada's most respected foreign correspondents, Mr. Stewart reported for The National and hosted CBC News: Our World. He has provided Canadians with a window on the world for more than two decades. In this issue of the *Monitor*, he draws on that experience for our Cover Story on the politics of global food.

Mr. Stewart has worked extensively in the developing world and in conflict zones. He was the first North American reporter to focus the world's attention on the 1984 East African famine. In the Gulf War, he was the first Canadian reporter to get into the liberated Kuwait City. He has filed award-winning reports from Somalia; Sudan, where he covered child slavery during their Civil War; and Rwanda, where he uncovered advanced warnings of the mass murders.

Mr. Stewart will bring his considerable expertise to a column on global affairs for the Munk Centre, and respond to reader queries. The column can be viewed at http://webapp.mcis.utoronto.ca/StewartBlog.aspx

FROM GLAMOUR TO COPENHAGEN

Making waves: Munk Centre student Jasmeet Sidhu has won multiple awards for taking on causes that matter. Her latest passion is climate change and she is in Copenhagen this month blogging on the United Nations Climate Change Conference for The Toronto Star.

Jasmeet Sidhu, a 4th-year student in the Munk Centre's Peace and Conflict Studies Program, is in Copenhagen this December to report on the United Nations Climate Change Conference. On assignment for *The Toronto Star*, she is blogging, tweeting and providing video updates on the negotiations and the stories behind the scene.

Ms Sidhu already has a solid track record of taking on challenging issues as a journalist, speaker, and international social activist. Her work has focused on youth empowerment, immigration, climate change, HIV/AIDS, and violence against women. She has earned a remarkable list of honours. Most recently, she was a 2009 Recipient of *Glamour Magazine*'s Top 10 College Women in America. Previously, she was the 2008 Winner of the Michele Landsberg Award for media activism and was named one of Canada's 100 Most Powerful Women in 2008 by *The Globe and Mail* and the Women's Executive Network. In 2007, she received a Top 20 Under 20 Award.

At 16, Ms Sidhu founded the Peel Environmental Youth Alliance, an umbrella organization working to implement environmental programs and train environmental leadership in all 220 Peel Region schools. The organization has now been running for five years and has won numerous national awards and grants for its programs. She has served as the youngest member of *The Toronto Star*'s community editorial board, writing several editorials on issues such as gendered-violence in the Sikh community, politics and cultural issues, and beginning in 2009, she worked as a staff reporter. She currently blogs for the *Huffington Post*, as well as *The Toronto Star*. Visit her blog at http://thestar.blogs.com/climate/

NEED A SOURCE?

Munk Centre scholars can be contacted for further comment on issues raised in this edition at munk.centre@utoronto.ca.

Commentators in this issue:

Jonathan Hausman, *Co-chair of the Master of Global Affairs Program, Strategic Advisory Committee*

Jeffrey Kopstein, *Director of the Centre for European, Russian, and Eurasian Studies*

Janice Gross Stein, *Director of the Munk Centre for International Studies*

Brian Stewart, *Distinguished Senior Fellow*

Outraged or inspired by the views expressed in our pages?
Tell us at: munk.monitor@utoronto.ca

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Director: Janice Gross Stein
Executive Director: Margaret McKone
Munk Centre for International Studies
University of Toronto
1 Devonshire Place
Toronto, Ontario, Canada, M5S 3K7
Phone: 416-946-8900
email: munk.centre@utoronto.ca
website: *www.utoronto.ca/mcis/*

For subscription to the Munk Centre Listserv contact janet.hyer@utoronto.ca

THE ROAD NOT TAKEN: 1989, THE LISBON TREATY, AND EUROPE'S NEW PERIPHERY

Jeffrey Kopstein

Director, Centre for European, Russian, and Eurasian Studies at the Munk Centre

"Why did history not repeat itself in Eastern Europe after the fall of communism?"

History does not repeat itself, they say, but it rhymes. Now this may sound as intellectually vapid as what one less-than-articulate US President was once rumored to have said — "things are more like they are today than they ever were" — but thinking about the 20th anniversary of the fall of the Berlin Wall, it raises an interesting question: Why did history not repeat itself in Eastern Europe after the fall of communism?

An observer with a keen sense of history might have discerned that in 1989, these countries found themselves in a situation eerily similar to 1919, when they first achieved or regained their independence. In both eras, the inexperienced political elites in these countries were initially committed to democracy. In both eras, these countries found themselves as bit players in the larger global capitalist order. And in both eras, they sought security through alliances with larger continental powers.

But things have (so far) turned out differently. Whereas in the earlier era, democracy quickly collapsed everywhere except in Czechoslovakia, today, despite a global economic climate at least as difficult as that of the 1920s (and almost as tough as the 1930s), democracy is holding in all of East Central Europe and the Baltic states. Whereas Hungary never held a free and fair election in the interwar era (its first one would not come until 1990) and by 1926, Poland had already experienced a *coup d'état*, nothing of the sort seems on the horizon today. Some countries have experienced unprecedented economic setbacks over the past year — Latvia and Hungary are the most obvious cases — but others have continued to grow. Who would have ever predicted in, say, 1988, that Poland would have one of the fastest growing economies in Europe in the 1990s and help lead the way out of a global recession in 2009, when it has actually experienced economic growth?

Which raises the question, what has changed over the past century? A number of factors come to mind. First, the geopolitical environment is still daunting, but no longer are these countries bordered by a revisionist Germany and Soviet Union — bully states of the first order. Instead, they are embedded within Western security structures. As battered as the NATO alliance has become as a result of the war in Afghanistan, it still provides an important guarantee that discourages would-be local dictators from using the security dilemma to destabilize the political order.

Second, as horrible as communism was, it did alter the social structure of these states, knocking out some of the most persistent forms of status hierarchy. In 1919, these societies were still deeply hierarchical, possessing the kinds of clubby status gradations that not even money can overcome. Communism, while yielding 40 years of economic stagnation, also left behind a relatively egalitarian social order that, ironically, was much better prepared for democracy than ever before. This is not a defence of communism, but simply a description of one of its unintended outcomes. Another and perhaps more tragic, unintended outcome of the intervening era is the ethnic cleansing that occurred during and after World War II, leaving these countries, on the whole, much more ethnically homogeneous than in the interwar era. It is sad to say, but political scientists have shown quite convincingly that it is harder to govern ethnically diverse societies well, and the democratic governments of postcommunist Eastern Europe may have benefited unintentionally from the crimes of the 20th century's totalitarian states.

Third, and perhaps most important, however, was the impact of the European Union. Whereas after 1919, the collapsed imperial trading blocs and the rise of protectionism in the 1930s left these countries competing with each other for the favours of France and Germany, the EU has made it possible to integrate almost all of them into the broader European division of labour. Furthermore, the conditions for admission induced a number of important reforms and helped these countries build the regulatory structures without which capitalism cannot function. Last but not least, the EU made democracy, good relations with neighbouring countries, and a reasonably fair treatment of ethnic minorities a condition for entry. These requirements have not always been perfectly met — but let's face it, if perfection were the standard, most EU member states could not become members.

For those countries with no prospect for admission to the EU, the democratizing power of "EU conditionality" is simply not present. The elites of Moldova, Georgia, and Ukraine, for example, pay a high price for continued snubs. Far easier for them is to retreat into resentful nationalism — "we don't want an invitation to your lousy party." Seen this way, it is in these countries where history really seems to be rhyming. The interwar drama, along with Russia as a weakened version of the original Soviet model playing the part of territorial revisionist *sans idéologie révolutionnaire*, is playing itself out again, but this time several hundred kilometres to the East. Phony democracy, wildly corrupt bureaucrats, economic stagnation, strutting nationalists, local parties as proxies for foreign powers, all of the fun and games of the interwar era, but in a slightly altered form.

If the EU has altered the politics of Eastern Europe, Eastern Europe has also changed the EU. An organization that started off as a club of six wealthy countries in 1958 is now an unwieldy organization of 27 very different states. As the composition of Europe's main political and economic bloc becomes more heterogeneous, it will inevitably change. Of course, the danger is that as Europe grows larger it could in some meaningful sense disappear. Not only will it lose its "European" identity (if it ever really had one), but it could become ungovernable as well and even less meaningful as an international player if it is unable to speak with one voice to the outside world.

The recently ratified Lisbon treaty is intended to address these concerns. It sets up two important new offices: an EU president who will sit in office longer than the rotating six-month "presidency" that existed before Lisbon; and an EU foreign minister who will provide coherence to the cacophony of member-state foreign policies. The treaty will go a long way in dealing with the problem of governance and will indeed help streamline decision-making.

The new offices, however, seem destined to fail unless the initial occupants make something more of them than exists on paper. Both the new EU president and foreign minister will confront a Europe in which the national governments have reasserted their power, both over the EU and vis-à-vis each other. If nothing else, the varied and uncoordinated response(s) to the global economic crisis proved that. The indispensable skill for any European leader is not so much the ability to give a good speech, but to be able to broker deals with powerful and self-confident national leaders like Sarkozy, Merkel, and Kaczynski. As for the new post of foreign minister, there is nothing in this treaty that will weaken the power of the member states to reduce EU foreign policy to the lowest common denominator, something that has plagued the EU since it first decided that it wanted a common foreign and security policy.

What no EU-level leader can address, however, is the wide and growing gap between the population and the EU itself. The EU parliament has performed poorly in closing the legitimacy gap and the Lisbon treaty does not address it at all, except in the most perfunctory and ritualistic manner.

The Lisbon treaty solves the EU's governance problem that enlargement created, but if the bloc wishes to return to the mission of democratization, it will have to turn to the spadework of shoring up the relationship between Brussels and the people who live in the existing member states. For now, enlargement is over and history is rhyming on the new European periphery.

IDEAS THAT MATTER

STRENGTHENING INNOVATION, RESTORING PROSPERITY

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will sustain this economic recovery and eventually help us to tackle the major challenges of our time, such as dealing more effectively with continuing high levels of poverty, climate change, water shortages, the provision of health care, literacy and inadequate education levels, and changing demographics.

Even as the recovery begins to take shape, however, we face daunting short-term challenges — rising levels of unemployment, ongoing bankruptcies and credit pressures, trillions of dollars of lost wealth, extremely tough business conditions, idle global manufacturing capacity, slowly recovering international trade, and high public-sector deficits and debt.

My second message, therefore, is that at least at a superficial level, the environment for innovation nationally and globally is in rough shape. Any discussion about our future prosperity and return to sustainable growth must take into account the current economic context as well as its effect on innovation. Only then can we determine what we need to do about it. So what's happening?

First, the pipeline for innovation is being cut back. In response to the severity of the downturn, companies have been forced to cut SG&A (sales, general, and administrative) expenditures, thus reducing their investments in R&D (research and development). A 2009 McKinsey global report suggests that 34 percent of surveyed large enterprises will spend less on R&D in 2009, while only 21 percent will increase spending.

In a corporate context, R&D expenditures over the long term must align with revenues, so this is not surprising. If corporate R&D depends on revenues and profits, then there is no question that there will be a decline in corporate research activity in periods of economic adversity.

It is noteworthy that Japanese firms may be the exception to this trend.

Despite the global downturn, for several reasons, Japanese firms seem to have maintained their commitment to R&D. In part, this may reflect the more short-term horizons of many North American and European firms, pressured as they are to consistently achieve improved quarterly earnings.

But even in non-recessionary times, Canadian policy-makers are envious of Japanese business R&D statistics. Japanese business expenditures as a percentage of GDP are a healthy 2.6, while the comparable Canadian statistic is a woeful 1.1 percent. There may be explanations for this in the structure of the Canadian economy, but the end result still leaves Canada in a less competitive position in the long term than we would like to have.

The business environment overall, particularly access to capital, is certainly less supportive of innovation. Increased bankruptcies and firm failures should affect business dynamism positively, as new firms enter the marketplace seeking to create new value propositions and introduce new or revised models of innovation. But in this recession, the availability of financing remains a key challenge for many firms in many sectors. In Canada, venture capital activity has declined to its lowest level in 14 years. The industry is facing severe challenges in the face of funding requirements by entrepreneurs and small businesses. This is limiting the ability of entrepreneurs to start and build new businesses. And it therefore undermines our industrial innovative capacity.

In addition, international trade has declined dramatically, weakening both the international connections that facilitate innovation, and the intensity of competition that often drives it. The recently released report of the authoritative Netherlands Bureau for Economic Policy suggests that the dramatic contraction in global trade volumes — estimated by the International Monetary Fund to decline by 12 percent this year — may not be reversing itself as quickly as hoped. If this is indeed the case, innovation will suffer in countries whose enterprises depend on international trade and global supply chains.

Some of this reduction in trade may be a side effect of some of the protectionist measures introduced by G20 countries after their leaders solemnly pledged to not resort to protectionism, lest we cause difficulties similar to those experienced in the 1930s.

Countries such as Japan and Canada that are home to firms with highly integrated supply chains will be further affected by the anemic recovery in international trade due to other related factors. This is because so many of our firms rely upon the technical expertise of people in other countries, the knowledge in other markets, and the developed networks of global contacts — all of which are important to the innovation process.

These rising protectionist and isolationist policies worsen the damage and hinder recovery and long-term competitiveness. Supply chains could deteriorate further if market access is reduced by export restraints, investment barriers, financial inducements for domestic industries, or the myriad other policies that many countries have put in place — or contemplated — over the past two years. "Buy local" provisions in fiscal stimulus plans are particularly destructive because they ignore the globally integrated nature of industry today.

The short-term job losses in all countries have been serious, but the real danger for innovation is the potential for long-term deterioration of skills. Job losses that are cyclical in nature will be restored eventually. But this downturn is unique in that high-value-added workers in both traditional and knowledge-based sectors are being affected harshly. If, as is frequently predicted, the global rebound is protracted, then it is possible that the skills of these individuals will deteriorate. People are the most important component of success at innovation. Finding and attracting the best people wherever they may be found in the world is crucial. For this reason, Canada's openness and multicultural traditions are important strengths.

Talented people are resourceful. They will, if they can, stay in school longer or go back to school to upgrade skill levels. But governments must ensure that those dislocated by the recession have the means and opportunities to keep building their skills.

Business strategies also must take into account the shortages of labour that we soon will face across the industrialized world as a result of demographic changes. Companies must do everything possible to retain workers and build new talent pools.

This leads to my next key point. We are facing not just cyclical but structural challenges. That's why we need to embrace even more fervently the culture of continuous change and innovation. Never has the need to be entrepreneurial and collaborative been more urgent.

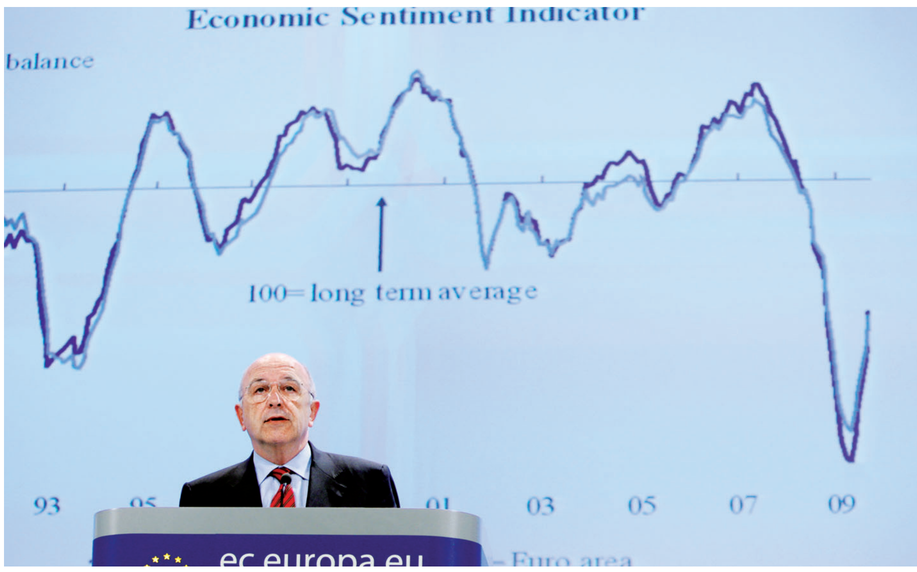
The world we knew before the financial meltdown is over. We cannot go back to the way things were. This is not simply a severe recession for which there will be a slower than normal recovery. The crisis seriously undercut economic activity and output in many sectors. In a number of countries, government stimulus continues to support private demand. Such dramatic events weaken the dynamics of private-sector innovation and, after the fact, result in fundamental transformation. In addition, government-funded stimulus must necessarily come to an end. The timing and the means of ending this intervention could profoundly affect ultimate outcomes.

These are very important considerations, since even in today's economic environment, innovation will continue to drive growth. Maryann Feldman of the University of Toronto put it succinctly when she said that, "The largest single factor explaining economic growth is . . . the ability to extract greater economic value from advances in science and technology." For countries such as Japan and Canada with similar post-crisis challenges, a severe downturn should present tremendous new opportunities.

How do we know that innovation drives growth? Several studies have pointed to the positive effects of R&D on growth in real GDP per capita (personal income adjusted for inflation). Also, the OECD has documented that, between 2001 and 2006, investments in information and communications technologies contributed from one-third to one-half of the economic growth in the United Kingdom, Finland, Sweden, and the United States. In my country, numerous studies have highlighted the direct link between private-sector investments in information and communication technologies and their impact on productivity performance.

Innovation can also drive growth in less quantifiable ways. In some cases, innovation stems from the use of an original technology for some new, previously unrealized use. Innovation may also consist of changes in workplace organization or business practices that result in higher productivity. And innovation may result from improvements in skill levels. Statisticians have concluded that such "intangible" investments make up between 5 and 12 percent of an OECD country's GDP.

Innovation itself has become more global. To stay competitive, many multinational enterprises conduct R&D in a number of countries —



How deep? And how long? European Monetary Affairs commissioner Joaquin Almunia assesses the impact of the financial crisis in a Brussels speech, September 2009.

when it makes sense to do so. Sometimes cost factors dictate these decisions. Sometimes there are more strategic reasons to establish research beachheads, including the need to tap into top global talent more effectively or efficiently. Such networks of public- and private-sector collaboration now span borders, sectors, and institutions. In Canada for example, more than 25 percent of Canadian patents have foreign co-inventors.

As I have outlined for you, we are not experiencing a "normal" economic slowdown. Given the structural challenges this time, it is fair to conclude that innovation needs assistance. Whenever ideas, capital, or talent are less free to move around, there will be consequences for innovation, entrepreneurship, collaboration, and creativity. So we must ask ourselves what we need to do to strengthen innovation and enhance prosperity both within and outside our borders.

One thing we must do is to learn from the past. In the 1990s, countries such as Finland, Korea, and Sweden experienced foundational dislocations and yet bounced back thanks to a resurgence of innovation in those economies. One reason for the rebound was that governments took the opportunity during periods of turmoil to introduce and accelerate structural reforms. Such structural reforms may have been resisted during better times by vested interests, but transformational crises and government leadership can break their powerful hold.

Moreover, history has shown that a period of economic challenge can be a powerful spur to innovation and that the intensity of innovation typically increases with the severity of a downturn. For example, some of the most successful innovative product technologies of the 20th century were introduced during the years of the Great Depression. Interesting analysis by McKinsey points to researchers at DuPont who discovered synthetic rubber and nylon in the 1930s, and to RCA, which shifted its innovation focus to television. In a study this year, the Ewing Marion Kauffman Foundation found that more than 50 percent of Fortune 500 companies were born during a recession or bear market.

The problem, of course, is that around the world, governments over the next decade or more will be facing strong pressure to reduce public deficits and debt. Inevitably, that raises the question of whether public support for innovation can be sustained.

Depending on fiscal capacity, governments could consider a more aggressive tax framework that is conducive to innovation. The OECD suggests that this could include a more robust program of investment grants and credits, accelerated capital-cost depreciation over a wider array of innovative investments, and R&D financing. Ernst & Young goes further to suggest "tax credits for new workers, immediate expensing of capital assets and making tax credits available to lenders to lower the costs of finance" as ideas to improve both entrepreneurship and innovation.

It will be important to improve the environment for entrepreneurship and industrial renewal. This is a vast subject, but put simply, it will mean allowing unsuccessful firms to fail, while simultaneously enabling new and promising firms to grow. A regulatory and tax environment that encourages firms to invest in innovation and provides strong intellectual property provisions to support and protect the creativity of early start-ups will be important policies in this regard. Simplifying and reducing administrative procedures, requirements, costs, and other barriers to growth will be more important than ever, as will rules to facilitate the restructuring of firms.

Conditions put in place during the crisis to provide financial support and to cultivate confidence in capital markets may have to be refined and/or extended in recovery. For example, a widely recognized accounting governance framework will be extremely important to facilitate increased foreign investment.

Advocating robust R&D programs could help fill the pipeline of innovation. This means a greater focus on promising research for which private-sector projects may have been cut or cancelled as a result of the recession. It also means encouraging sound public-private partnerships or co-investment and collaboration between universities and businesses. It may also mean increasing, rather than decreasing, public-sector-driven, curiosity-based research, provided there is a defined path to commercialization.

Even in this turmoil, investing in education remains an imperative for long-term prosperity. Many countries have introduced fiscal stimulus plans that include building talent as a pillar of economic recovery. As the global economy begins growing again, it is clear that the war for talent will resume, perhaps with greater ferocity.

Despite fiscal pressures, therefore, governments are going to have to find a way to sustain their investments in education and training to assist people in their transition to new employment. Both the public and private sectors are going to have to find a pathway to closer collaboration. Greater collaboration and partnership will help to improve the quality of training and education in public institutions, and to leverage government investment in the coming era of fiscal restraint.

In addition to playing a catalytic role in industrial renewal and in high-technology manufacturing, governments must resist the urge to engage in protectionism and isolationism. Governments have an important role to play in defence of open markets. Let's face it — protectionism is more intuitive than open markets. But enterprises, educational institutions — all actors in the innovation system — will need to rely with confidence upon a robust policy of openness with other countries when it comes to goods, services, capital, and people. In the Canadian and Japanese context, our entrepreneurs absolutely need to connect globally and tap into bigger markets. Canada has embarked upon an aggressive strategy to strengthen its commercial ties with major economic partners around the world. Our government is currently engaged in negotiations toward a comprehensive economic partnership agreement with the European Union and may soon be ready to pursue a similar approach with India. At the same time, our relationship with China has recently taken a much more constructive turn after a few years of chill.

All together now: The International Space Station represents shared scientific innovations between the US, Canada, Japan, Russia, and Europe.

After several years in hiatus, Canada and Japan should reconsider prospects for a stronger and more structured partnership, perhaps based on a science and innovation agenda. Surely the crisis and its impact demand such reconsideration.

Canada and Japan already have an active collaboration in the area of innovation that could be built upon. For example, our space agencies are involved in the development of small satellite technologies and are working together closely on other missions. Canadian astronaut Julie Payette recently helped establish Japan's "Kibo" space research lab on the International Space Station, utilizing the Canadarm.

Canada and Japan are cooperating in stem-cell research, regenerative medicine and research, and new approaches to the diagnosis and treatment of brain diseases. Two of our agencies have signed a memorandum of understanding to collaborate on particle accelerator research and development, and we have been partners for over a decade in particle physics. We are partnering in next-generation life science technologies. Canadian innovation is being enjoyed in such sectors as animation and gaming software, nanotechnology and advanced materials, fuel-cell technology, and in advanced house construction.

In industrial innovation, aircraft wings are designed and built by Mitsubishi Heavy Industries in Nagoya for use in Bombardier aircraft. Equally important, the province of Ontario is home to a thriving Toyota plant that produces Corolla, Matrix, and RAV4 vehicles, and has the distinction of being the only site outside Japan to produce a Lexus automobile — a clear sign of innovation and collaboration between Canadian and Japanese workers and management.

I commend the Government of Japan, as well as the Japanese business and scientific community, for the creation of the STS Forum, which has been promoting international dialogue in science and technology for six years. More than 800 scientists, industrialists, political leaders, and members of the media from 85 countries attended this year's forum in Kyoto, a city that clearly deserves the nickname "Scientific Davos." Canadian participation is better than ever, thanks in large part to two of our champions — Dr. Arthur Carty and Ambassador Jonathan Fried. I would point out that two prominent member CEOs of the Canadian Council of Chief Executives took part in this year's deliberations — Tom Jenkins of OpenText and Steve West of MDS, Inc.

These examples point to the fact that there is much more we can do together both bilaterally and in the global context. Thank you.

FINANCIAL REFORM: WHO WILL RUN THE ZOO?

Jonathan Hausman

Co-chair, Strategic Advisory Committee,
Master of Global Affairs Program
and Vice-President, Alternative
Investments and Emerging Markets,
Ontario Teachers' Pension Plan

Before the recent crisis, financial innovation was generally viewed as a critical component of efficient and responsive capital markets. This made the near sevenfold increase in the notional value of over-the-counter (OTC) derivative contracts to about $400 trillion over the last decade seem almost preordained. But innovation also has a dark side. The new financial tools available to market players allowed what started as a typical housing bubble in one country to grow exponentially into a global liquidity crisis, leaving no market unaffected and prompting unprecedented government intervention.

There are many explanations for the US-bred crisis — a massive inflow of capital from abroad leading to excessive liquidity; the over-provisioning of housing loans to borrowers with poor credit histories; and weak risk management models. All of these are at least partly true, but at its core, the crisis was the result of a fateful combination of complex financial instruments with a lack of proper governance to match them. Whether intentioned or not, existing regulations and regulators allowed the animals to take over the zoo. What is done is done. The questions now are: Where are we going next? and What is the role of innovation?

Time for a strong coffee? Traders at the New York Stock Exchange assess the damage at the start of a trading day in October 2008.

The recent IMF meetings in Istanbul provided a glimpse of what might characterize the global financial system post-crisis. The meetings told a tale of two different narratives describing the crisis. The first, espoused by international banks, argues that the swift recovery in markets indicates the crisis is over and therefore radical reform is unnecessary. The second view, espoused by top government officials, argues that the world economy came dangerously close to ruin in 2008, and without serious reform to the financial system is at risk. Despite the seeming chasm between these perspectives, there has already been some early agreement on certain measures to strengthen regulation of banks and other financial institutions, and to bring prudential rules closer to a more cautious (and, interestingly, Canadian) standard. Yet these competing narratives will set the terms for the deeper debate over whether there will be radical or incremental change in more critical policy areas, such as the structure of the derivatives markets and whether banks should be allowed to become too big to fail.

Based on what the Obama administration and other influential governments are saying, we will likely see some radical differences in the tools available to financial players, but more incremental changes related to the overall structure of the global banking system.

There is a lot of momentum behind the idea of putting OTC derivatives onto traded exchanges. This has understandably sparked resistance from many banks and large corporate consumers of these contracts, but it seems that the logic of eliminating the opaque counterparty credit risk that contributed so much to the liquidity crisis will ultimately prevail. This means that, in time, we could see a majority of credit default swaps traded on an exchange, which, combined with a better, coordinated regulation of risk-taking institutions, would make a repeat of the AIG debacle very unlikely.

Changes to the banking model will, however, likely be more modest. There is no doubt that banks will be more transparent and subject to stricter governance. They will also be better capitalized, less leveraged, and more risk averse. But it is on the questions of their capacity to mingle together the functions and profile of a commercial bank with those of an investment bank, and their tendency towards gaining mega-size, that reform will likely fall short. Arguably, the 1999 repeal of the famous *Glass-Steagall Banking Act*, which separated commercial and investment banking activities, marked the beginning of the problems leading to the 2008 credit crisis. In the post-Glass-Steagall world, commercial banks with large balance sheets and stable deposit bases ended up cross-subsidizing higher risk activities associated with investment banks. Related to this is the fact that banking is a scale business, with great advantages afforded to those institutions that lock up market share in key areas. Although efforts will be made to dissuade banks from becoming financial Walmarts, it is unlikely they will stem the tide of global consolidation now underway, particularly given that banking margins are being squeezed by the very same regulators through higher capital requirements. This makes the diminution of the too-big-to-fail phenomenon very hard to envision.

So what does this all mean for financial innovation going forward? There are both positive as well as negative potentialities. On the positive side, for countries such as Brazil, India, and China, financial innovation in properly functioning mortgage and securitization markets means higher-quality future economic growth. Inasmuch as the credit crisis spawns better standards across the G20, these countries might avoid many of the pitfalls that have plagued developed markets over the decades. On the negative side, without a more thoroughgoing reform of the sprawling global bank, financial innovation might well once again be cast in its usual starring role as a means of getting around complex regulation, thus starting the customary cat-and-mouse game between the regulators and the regulated all over again. Time will tell which phenomenon will dominate.

The author's views are his own and do not represent those of the Ontario Teachers' Pension Plan.

CENTRE EVENTS

INNOVATION, GLOBALIZATION, AND THE UNIVERSITY







From left to right: Murray Metcalfe, Yu-Ling Cheng, Janice Stein with Kiyoshi Kurokawa, Janice Stein, Joseph Wong, Kiyoshi Kurokawa, and Anita M. McGahan.

Faculty from engineering, business, and social science came together at the Munk Centre to examine how the university community can best foster innovation in an increasingly globalized world. They agreed that the university offers a potential breeding ground for the sort of interdisciplinary interaction required to foster technological and social innovation. There also was discussion, however, of how universities can better meet the challenge.

Keynote speaker Kiyoshi Kurokawa of the Graduate Research Institute for Policy Studies and Professor Emeritus of the University of Tokyo, provided a sweeping overview of the innovations that have transformed the past century. Albert Einstein established the theory of relativity, the Hiroshima bomb was detonated, and nuclear power became a viable energy source. He defined innovation as "the creation of new social value." Professor Kurokawa argued that the university community is the best place to nurture future leaders who are prepared to tackle global problems, because campuses are open, heterogeneous places where people from different cultures and disciplines can interact and learn from each other. "Face-to-face contact remains a key aspect of learning. A world interconnected only by the Internet is wrong," said Professor Kurokawa.

Down boy: Robotics, exemplified by this walking dinosaur robot created in an artificial intelligence lab, is one area where universities are leading the charge on innovation.

Certainly, some university educators are taking seriously the need to become incubators of innovation. Murray Metcalfe and Yu-Ling Cheng described the efforts underway in engineering to train students to become innovative global leaders. Professor Cheng, Director of the new Centre for Global Engineering, spoke of changes in engineering education such as the D-Lab at MIT, which takes undergraduate students to poor countries to determine need and design solutions. She also cited innovative changes in the engineering curriculum at the University of Toronto, including the Engineering Leaders of Tomorrow program. Dr. Metcalfe, recently appointed as the Faculty of Applied Science and Engineering's Professor of Globalization, contended that advances in technology alone cannot solve the problems of the world. Future engineers will need to take into consideration such factors as sustainability and the environment, innovative approaches to financing, and the unique requirements of developing regions of the world.

Overall, however, universities do not fully live up to the model that Professor Kurokawa described. "To be blunt, you have painted a somewhat romantic picture of the university," Munk Centre Director Janice Stein,

> *"It's a struggle to encourage and support people who are innovative"*

who chaired the session, told the panel. Professor Stein agreed that the university is fertile breeding ground for the interdisciplinary collaboration that can fuel innovation. But at times, she said, universities can stifle rather than encourage innovation among their students.

"We need a risk-tolerant environment where there is a willingness to fail and a willingness to challenge," she said. Instead, she said, graduate students often take on safe subjects, which look a great deal like the work of their faculty mentors, and work on incremental problems so that they can complete their doctorates. "Peer review," she added, "can leech out innovation. It's a struggle to encourage and support people who are innovative and give them the time they need to experiment, fail, learn, and try again."

Professor Chen advocated a three-pronged attack on sacred academic institutions to encourage creativity and innovation. "Get rid of tenure," she said. "Then, renew contracts of faculty on the basis of their impact and cancel programs that don't attract good students or produce results." Professor Joseph Wong responded that universities are one of society's few institutions that allow "space for discussions of social value" and suggested that the security of tenure allows those "conversations without worry." Professor Wong, a political scientist who is director of the Munk Centre's Asian Institute, added: "If the cradle of innovation is uncertainty, the university is the ideal place for this to happen." Professor Stein added that the university can create "incubator" seminars to open up additional "safe spaces" to encourage innovative thinking without consequences for the multiple failures that inevitably pave the road to innovative social and technological breakthroughs.

THE POLITICS OF FOOD

Continued from page 1

The crisis became a classic panic as 31 state exporters of wheat or rice, including Argentina, Vietnam, India, and Thailand, clamped down on exports. This drove an even larger number of countries, 46 in all, to dive into the market with still more bulk orders for supplies while they could still afford to. The frenzy caused commodity speculators to bid prices up still higher.

A sudden rise in the number of people living in extreme poverty was an historic setback for the globe. For two decades, poverty had been steadily declining as a new middle class arose in Asia, the Pacific, and Latin America. Now progress reversed, moved backwards, and extreme poverty rates shot to today's unprecedented level. Only the intervention of international emergency food shipments to more than a billion people prevented famines to equal that of Ethiopia in 1984.

The crisis at least stripped away widespread misconceptions about global poverty. In recent decades, it has largely been portrayed as essentially an intractable sub-Saharan Africa problem, the result of dreadful government there as much as natural calamities like droughts.

Badly off as Africa is, this underestimates the global scale of poverty. In fact, most of the world's severely poor are not in Africa, but rather in Asia and the Pacific. There are almost three times as many poor — 642 million — in countries like China, India, Pakistan, and the Philippines than the 265 million in sub-Saharan Africa. These are sobering numbers given the serious risk of civil unrest. In turbulent Pakistan, for example, half the population of 172 million lives with malnutrition. Those in extreme poverty in Latin America and the Caribbean rose to 71 million this year, with 53 million of these lacking enough to eat, a rise of 3 million in just 12 months.

Another misconception was to believe higher food prices might actually help many of the world's poorest in rural areas by increasing their income from farming. In Africa, however, the poorest work small plots of about a hectare in size and produce so little they must be net buyers of food. A steady rise in prices would help, but hardly a shock like this, for inflation cancelled out any income gain and put them further behind. In Asia, most of the rural poor are landless labourers dependent upon seasonal harvest work. They, too, were net buyers of food, and so suffered terribly.

The situation was made more desperate by bizarre weather patterns that brought crop failures in many parts of Africa and Asia, because of longer droughts or more severe flooding. Such blows meant the rural poor often had to sell off everything they owned, including farm tools and livestock, to feed their families.

At least the global food crisis placed world agriculture where it deserved to be, at the centre of international concern. By mid-2008, governments were scrambling to fund emergency food supplies, and to make sense of this serious threat to world security. Saudi Arabia, sensitive always to political dangers, came up with $700 million in immediate aid; the US Congress made $1.8 billion in pledges. The UN and the World Bank set up special task forces, and food prices were at the top of the agenda for that summer's G8 discussions.

Lean times in East Asia: Cambodian farmers carry batches of rice in 2008, when dwindling supplies of rice and other staples sparked food riots in 61 countries.

All this long overdue attention, however, was swept into the background within months, after the world's economies were shaken in turn by financial meltdowns. The current recession also cut consumption, which helped lower food prices by up to 40 percent (although leaving them still well above this decade's norm).

It would be a grave mistake for governments to take this relative price calm as more than a temporary remission. As recession ends consumption will rise. Also, there are growing fears of another price shock on the way in Asia, where major rice growers, India, China, and Thailand, are now trying to make up for a poor rice harvest in which millions of tons were lost to floods and droughts. The possibility that India, second largest exporter of rice, could soon switch to become a large importer would put enormous new stress on a still shaky supply situation.

In anticipation of new price rises, providers of emergency food supplies, such as the UN's World Food Programme (WFP), have had to cut rations to millions already on relief in drought-ridden East Africa. The UN agency fears it won't be able to afford enough supply for the expected record high numbers of people needing aid in coming months. Simply put, the world's poorest are now in much worse shape to face further shocks. They've scarcely any reserves left.

"The food crisis is not over and hunger is on the march," Josette Sheeran, head of the UN's WFP warned recently. "One out of six people in humanity will wake up not sure that they can even fill a cup of food. In 80 percent of the developing world, people can afford one-third as much food as they could two or three years ago."

The issue of food security, meanwhile, still competes for attention at world gatherings, even though there are growing warnings that past mistakes raise questions about our ability to handle future food demands. "Food security represents a greater threat to mankind than climate change itself," warns John Beddington, the British government's chief scientific adviser. His is a sense of alarm shared by many food experts frustrated by the lack of attention given food production, and fearful of the staggering stakes involved.

The UN predicts that in just 20 years worldwide demand for food will increase by 50 percent. In just 40 years, the globe's population will soar by one-third, up from 6 billion to around 9 billion. How will we feed such numbers almost beyond our comprehension? What's truly worrying is that the growth rate in agriculture production is *falling*, not rising.

Many complex factors led to the global food crisis, but supply problems — that is, getting enough food to people at prices they can actually afford — are central and these are with us still. The use of grains and oilseeds has overtaken production. Growth in production of cereals has fallen by more than half since 1980, from 2.8 percent to just 1 percent. Growth in world rice production is stagnant.

The Green Revolution of the 1970s became, in a sense, a victim of its own extraordinary success as it bred complacency in governments about the ease of feeding ever-growing populations. Many countries, including China, assumed supply was a diminishing worry and cut back on food stockpiles.

Over the past 25 years, similar complacency saw a 17 percent decline in global investment in agriculture and in development aid to farming. Research and development for agriculture wilted, while total government spending on agriculture plummeted 58 percent in the same period. Africa never got its own Green Revolution, though it was desperately needed. There was serious underinvestment in India and Pakistan prior to the crisis.

The problem of global food security should be of greatest urgency to all governments, for no one can say when another such combination of events — weather, energy costs, water shortages, even civil unrest — will set off another price bubble. Major increases in production are still possible given adequate focus and repair. While many past rural development efforts failed, more are succeeding than commonly realized, and these offer promise.

Even in arid and impoverished areas of northern Ethiopia, development experiments have seen farm incomes triple and farm production rise sevenfold over six years. A second Green Revolution is still possible — indeed, will be critical. More countries, including the US, accept the idea that the long neglected small farmers of the world can, with sustained help, significantly boost production as well as their incomes. Weather change must be confronted, of course, and world commodity trading systems reformed to prevent sudden mass panics capable of destabilizing the whole world.

These are huge undertakings that will require sustained innovation. The global food crisis showed all too clearly, however, that the time to reach serious political solutions to agriculture's malaise is very short, while the stakes in terms of global security are extraordinarily high.

Brian Stewart is a Distinguished Senior Fellow at the Munk Centre and a veteran television reporter and commentator.