Policy Panel:
Canada's Role in International Macroeconomic Policy

Discussion 1

Mark Carney

I would like to draw on my recent experience on both the Finance and Bank sides of the G-7 process to provide some perspective on Canada's role in international macroeconomic policy.

I will begin by outlining the G-7's priorities in recent years. It may surprise you—it surprised me—that G-7 finance ministers and their deputies spend more than half of their time on development issues. There are advanced, ongoing, and complex discussions on debt relief for heavily indebted poor countries (HIPCs), mechanisms for leveraging and front-loading aid, and priorities for implementing codes and standards in emerging markets. The priorities of the UK chair for next year are development and Africa. International macroeconomic challenges, of which there are several, come further down the list.

The G-7 is principally a talk shop, particularly for central bankers. At its best, it provides a forum for frank discussion, improved mutual understanding, and relationship building. These elements can be decisive in improving macro-policy management and averting and/or managing crises.

A more proactive role for the G-7 is its control of the International Monetary Fund (IMF) and the World Bank. At a minimum, the G-7 has effective negative control in that it can block virtually any initiative or program it wishes (in fact, the United States alone virtually has this negative control). I would argue that, for good or ill, the G-7 also has positive control over most of what is accomplished by the international financial institutions (IFIs). The G-7 sets the agenda and defines the parameters of the debate.

With that backdrop, international macroeconomic issues are discussed in three settings:

(i) broad IFI issues, including reform of the international financial architecture and individual country programs that are regarded as potentially systemically important;

(ii) current conjectural "crises," including exchange rates and oil prices;

(iii) increased attention to structural resolution of global imbalances under the rubric of the agenda for growth.

In saying a few words about each, I will try to illustrate the role for Canada.

Canada, particularly the Bank of Canada, has been very active in developing the agenda to reform the international financial architecture. Canada has played leading roles in the development of the Exceptional Access Policy, more sophisticated applications of the Balance Sheet Approach, and now efforts to modernize the management and risk management of the IMF. In these examples, the over-used Keynes quotation about "madmen in authority"[1] is applicable. Madmen may run the IMF (see my comment about G-7 finance officials' control above), but it is the thoughtful leadership of the Bank of Canada that trickles down to guide reform efforts and bring some sanity to global financial management.

In this regard, it should be noted that we enjoy the benefits of a very strong IMF office, which represents a constituency of nations, including some heavy users of IMF and Bank programs. This provides a unique perspective.

An important aspect of this work has been the Bank's ability to build partnerships with other institutions, most notably the Bank of England, with whom the Bank of Canada has enjoyed a long and productive research program, but also the Bundesbank and the Banque de France. Another encouraging development has been the Bank's outreach to major emerging markets, such as Mexico and Argentina, to share its expertise in inflation targeting and financial stability management.

Over the course of the past 18 months, increased volatility in exchange rates and oil prices has naturally garnered increased attention at the G-7. In these discussions, Canada has consistently stressed the importance of letting the markets work and of governments pursuing sound macro policies. In many respects, Canada provides a purity of perspective in exchange rate issues

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1. "Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back." From *The General Theory of Employment, Interest and Money.* 1936. John Maynard Keynes.

that is often lacking. While we have long recognized the benefits of flexibility, it should not be underestimated how often this needs to be repeated, even among the most nominally sophisticated audiences. At times of heightened volatility, there is tremendous political pressure to do something. This pressure is not lessened by the fact that asset markets may overshoot on occasion. The least harmful outgrowths are efforts for greater accuracy in oil-market statistics (see Fall 2004 G-7 meetings) and that carefully crafted language on exchange rates in G-7 communiqués.

In fact, the language from the February 2004 G-7 meeting in Boca Raton is entirely consistent with our exchange rate policy:

> We reaffirm that exchange rates should reflect economic fundamentals. Excess volatility and disorderly movements in exchange rates are undesirable for economic growth. We continue to monitor exchange markets closely and cooperate as appropriate. In this context, we emphasize that more flexibility in exchange rates is desirable for major countries or economic areas that lack such flexibility to promote smooth and widespread adjustments in the international financial system, based on market mechanisms.

Over the course of the past year, the G-7 discussions have focused increasingly on the Agenda for Growth. The agenda serves several purposes: first, depending on your perspective, it is either a bully pulpit against or a welcome push for Europe; second, it is a way to share best practices; and third, it is a component of the multi-faceted process for adjusting to global imbalances.

In discussions on the Agenda for Growth, Canada usually begins by underscoring the importance of sound macro policies. In this regard, we have an exemplary record among our G-7 peers:

- seven straight surpluses;
- lowest general government debt to GDP;
- lowest foreign debt burden;
- highest growth in living standards;
- highest cumulative income growth;
- second highest per capita income;
- highest employment growth;
- highest (absolute highest) employment ratio;
- and the only public pension that is actuarially sound for 50 years.

Of course, our challenge is both to maintain this record (no easy task) and to accelerate the agenda for microeconomic reform. There is a need for progress on a range of issues, including improved labour market flexibility, deepening the Canadian economic union, and improving financial market efficiency. The downside to our remarkable employment performance in recent years is that there is, by definition, less un- and under-employed labour to crowd in, which when combined with our demographics, means that we will need to rely more heavily on capital deepening and total factor productivity to maintain our potential growth rate.

One of the principal challenges for the G-7 is its ongoing relevance in light of the increased importance of China and other major emerging markets. Thus far, the G-7 has responded to these welcome developments by increased engagement with China, with whom we meet regularly at various levels. Clearly, Asia holds the key to the smooth resolution of global imbalances and the increased flexibility of the global economy. Our challenge is to engage China while maintaining the like-mindedness characteristic of the group, including the agenda for development that is so central to the G-7's activities.

Discussion 2

John F. Helliwell

I have found this a very interesting conference, full of useful research and relevant discussion. Most of the papers are focused, and rightly so, on establishing the nature and consequences of international transmission mechanisms. In this closing panel, there is both opportunity and obligation to take a broader view. We can now ask, in the light of what has been learned from the conference, what can be done to increase the efficiency and stability of the international system. Are there policy vacuums that need to be filled? If so, by whom? In particular, where are the gaps that could or should be filled by Canadian actions and advocacy? To set the stage for this, I should summarize my empirical assessment of the structure and risks of the current international system, and make a case for re-balancing the criteria used to judge the results of national and international economic policies.

As confirmed by several important new empirical papers prepared for this conference, the structure of economies and societies, even after a half century of trade growing faster than GDP, is still predominantly local, regional, and national. Thus it is that study after study finds that market integration assumptions are rejected by international data while being accepted by comparable intranational data. This led me earlier (Helliwell 2002, 24) to conclude that the only thing wrong with most of the theory of international trade and finance is the word “international.” Thus did Davis et al. (1997) find the working of the factor abundance theory supported by trade among Japanese prefectures while being rejected by international data. Similarly, Andrew Rose (this volume), finds that a necessary condition for stock market integration is passed for the New York Stock Exchange (NYSE)

on its own and for the Toronto Stock Exchange (TSX), but strongly rejected as between the two national markets. And this is comparing two markets, as noted by Eric Santor (this volume), with a very large number of cross listings (of TSX shares on the NYSE), probably more than for any other pair of national stock exchanges.

Similarly, Jean Imbs (this volume) finds that intranational capital markets appear to provide evidence consistent with intertemporal consumption smoothing, while the reverse is always found to be the case when international data are used. This finding is of course no surprise, as the Imbs estimation form has strong parallels with those underlying tests of the Feldstein-Horioka (1980) puzzle, although the latter literature gives more importance to the relation between national saving and domestic investment (as recommended at this conference by Gregor Smith, in his commentary in session 3), rather than to consumption smoothing. Subsequent tests of the Feldstein-Horioka equation combining intranational and international data have established that the strikingly large correlation between savings and investment rates at the national level is entirely absent among Canadian provinces (Helliwell and McKitrick 1999). And, to answer Linda Goldberg's query about the possibly confounding effect of equalization and other transfer payments, this result holds whether or not federal-provincial transfer payments are netted out (Helliwell and McKitrick 1998, 7).

Charles Engel (this volume), using a new set of price-level data for US and Canadian cities, continues to find, as he and John Rogers found in their pioneering work (Engel and Rogers 1996), that prices are much more closely linked among cities in the same country than they are between cities in different countries. In his new work making use of price levels rather than price changes, Engel is tempted to measure US-Canada cross-border market integration in terms of smaller absolute differences between price levels in the two countries. However, he finds instead large relative price cycles that are linked to changes in the nominal exchange rate. He interprets these as evidence of price setting that is sticky in local currency. That is surely part of the story, but it reflects also that the degree of market separation is far greater across national borders than across space, even given the strikingly large spatial separation of markets. The price-separating role of the border is also confirmed by the conference paper of Helliwell et al. (this volume), who test and strongly reject purchasing-power parity in the context of short-term determination of the bilateral Canadian exchange rate with the US dollar.

In this context, it is no surprise that the conference papers on business cycles by Gosselin at al. (this volume) and Cardarelli and Kose (this volume) continue to find robust regional and national components of business cycles

in both Canada and the United States. Nor is it surprising that Bouakez and Kano (this volume) find that the intertemporal present-value model, which assumes perfect market assumptions to be applicable to international data, is strongly rejected by Canadian current account data.

Thus, the conference papers have added to the already large quantity of evidence attesting to the distinctness of national markets, even within regional trade blocs as strong as those of the North American Free Trade Agreement and the European Union. The policy implications of this I shall emphasize later. When I do, I shall take as read the arguments I made earlier in Helliwell (2002) that the high levels of income, productivity, and well-being in smaller countries suggest that the separation of national economies is more likely to reflect efficient allocation than the existence of costly impediments to trade. As Charles Engel pointed out in his intervention in the first session, market separation does not imply an inefficient lack of integration, since tastes, preferences, and opportunities may vary systematically among countries, in ways that make local products optimal for local purchasers. I would add that where information is costly, where trust linkages grow weaker when distance and borders intervene, where tastes for variety are limited, and where local products are more likely to be designed to meet local tastes, efficient least-cost production and distribution are likely to be characterized by predominant matching of local products to local markets.

If the current levels of international market segmentation among the Organisation for Economic Co-operation and Development (OECD) countries were on balance a costly proposition, then the smaller OECD countries, which have proportionately much larger border effects (Anderson and van Wincoop 2003), would have lower values of GDP per capita (to the extent that there were efficiency costs) or lower life satisfaction (to the extent that consumers in small countries felt a lack of sufficient product variety). But, as is well known, the highest levels of life satisfaction are found in the smaller countries of Scandinavia and Western Europe. The emerging literature on subjective well-being (SWB) suggests that the especially high levels of SWB in these countries are due in large measure to the quality of their governments and to their high levels of mutual trust and engagement (Helliwell 2003). This provides a suitable transition to the second main feature of the empirical background: the importance of institutions for the establishment and maintenance of economic progress and broader measures of well-being.

The conference paper that speaks most directly to this second set of issues is that of Desroches, Francis, and Painchaud (this volume) on the structure and

pace of trade and growth in China and India. The main focus of their paper is on the importance of institutions, and their special contribution is to find an interaction effect between openness and institutional quality, with openness making no net contribution to growth in the absence of sufficient institutional quality. The authors are rather apologetic about the failure of the openness variable to have a positive effect on its own. By contrast, the institutional variable has positive effects both on its own and in combination with openness. Students of post-1991 economic shrinkage in the countries of Eastern Europe and the Former Soviet Union (FSU) should not be surprised one bit by this combination of results. Post-1991 research has shown that openness may be counterproductive in an institutional vacuum, since the Mafia and other bottom-feeders thrive in such an environment. When they move in, a bad situation becomes worse, and the eventual establishment of trust and the rule of law becomes a longer and tougher process.

Not all institutions matter equally for growth, and some are more likely than others to interact with openness. Whatever model is developed must be able to explain why China has been able to combine greater openness (at least in the trade-based measure of Desroches, Francis, and Painchaud) with high levels of growth, while the countries of the FSU have not. After all, GDP per capita in China doubled in the dozen years after the fall of the Berlin Wall, just as it was falling by half in Russia. How did China achieve this with such low levels of institutional quality, as measured by Desroches, Francis, and Painchaud?

It has been suggested that the interaction between institutions and growth may depend on the nature of the underlying cultural and national norms. Thus, it has been found that democracy and growth are negatively related in Asia, while positively related in Africa and Latin America, with the rationale being that both democratic and non-democratic leaderships in Asia are more concerned with growth and less with internal conflicts. Similarly, even though convergence was not general among the Asian economies, it was evident among those that were the most open (Helliwell 1993).

Both of these bits of evidence suggest that the more successful Asian countries have been able to achieve controlled openness, such that they were not overwhelmed during the process. The Asian crisis of the late 1990s perhaps provides a recent example where capital account openness had become unproductively great relative to the sophistication, trust, and mutual understanding required by lenders and borrowers alike. The most important advantage of such failed or costly experiments is to enable the relevant lessons to be learned. In the case of the management of openness, these lessons are being learned, but the learning process is still shackled by the

pressures imposed by ideological preconceptions. If one starts with an unquestioning belief that democracy and openness are good always and everywhere, then one is likely to be insufficiently able to receive and process the results of the many practical experiences taking place in real time. The same is equally true for those starting with an unshakable view that openness destroys national cultures, robs national capacities, and fuels exploitation. The need for evidence-based policy making was never greater, and it is especially important and difficult to establish when institutional design is at stake. This is partly because the evidence is harder to assemble and interpret, but mostly because of the ideological content implicit in the design and choice of market and political institutions.

The existence of high-quality institutions has been shown, by the Desroches, Francis, and Painchaud paper, to be an essential precondition for increases in economic openness to have positive effects on economic growth. When considering what defines high-quality institutions, it is important to remember that different arrangements work in different settings, and that one-size-fits-all is as wrong for institutions as for shoes. This, in turn, implies that if countries like Canada are to contribute to the global economy, one way will be through helping other countries to improve their own institutions. I shall return to consider this in more specific terms.

First, it is necessary to make a case for broadening the criteria used for measuring the success of economic and social policies. Using subjective well-being rather than GDP per capita as a measure of human welfare represents a major change in focus (as argued by several researchers in Kahneman, Diener, and Schwarz 1999), since country rankings are quite different for the two measures, and the policies indicated to improve them are often quite different. Economists have always assumed that utility should be the focus of attention, and it was only the absence of easily available measures of utility that caused researchers and policy-makers to place so much attention on the level and distribution of economic output, incomes, and consumption. While much recent research has emphasized the importance of high-quality government to economic growth, the quality of government is even more tightly linked to well-being. Indeed, attempts to explain international differences in life satisfaction have found that the strong simple correlation between per capita income and life satisfaction is greatly reduced or even eliminated when explicit measures of the quality of government are introduced into the equation explaining international differences in subjective well-being (Helliwell 2003).

Some economists have been skeptical of using subjective measures of life satisfaction, primarily because of their subjectivity. Presumably, for such economists, preferences need to be evidenced by deeds rather than merely

by expressed opinions. This skepticism underlay the question I was often asked in seminars where I presented research results based on well-being data: “If the Swedes are so happy, why do they commit suicide so often?” This led me eventually to the study of international differences in suicide behaviour, using the same countries and models I had used for the study of life satisfaction.

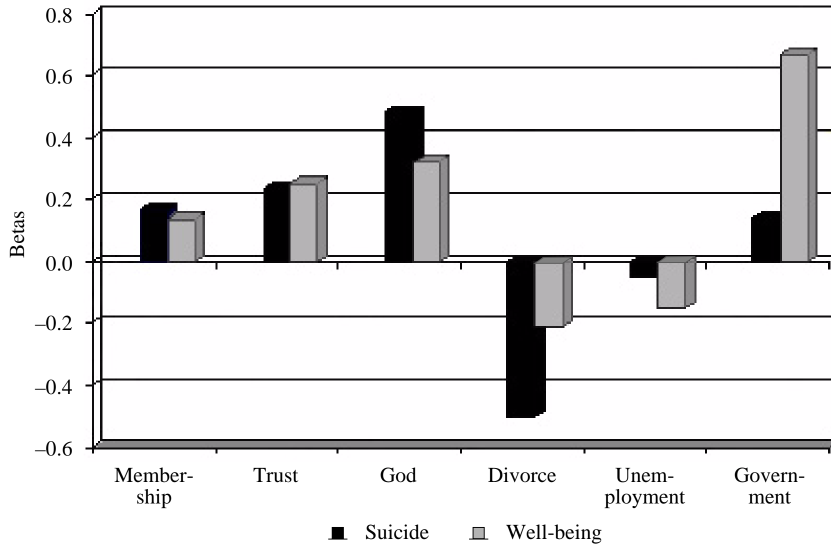
To a surprising extent, as shown in Figure 1 (adapted from Helliwell (2004)), the same model fits well-being and suicide remarkably well, with all coefficients having consistent signs. The signs are naturally opposite for suicide and well-being, since suicide is a consequence of extremely low life satisfaction. The suicide coefficients (expressed in standardized form) have been multiplied by –1 in Figure 1 to make it easier to see the extent to which suicide and subjective well-being are explained by the same factors. Both models explain about three quarters of the international variation in both suicide and subjective well-being.

The answer to the question about Sweden can now be given from a comparable research base. Sweden provides no puzzle for either model, since the Swedish data are almost exactly explained by both equations. But how then are we to explain the fact that the Swedish suicide rate is about average for the industrial countries, while their subjective well-being is much above average? The answer is related to the fact that some variables that are more important in protecting against suicide than they are in promoting life satisfaction (such as belief in God and longevity of marriage) have lower values in Sweden than in the average country. Conversely, the quality of government, which is especially high in Sweden and the other Scandinavian countries, has a greater effect on life satisfaction than on reducing suicide rates.

The two social capital variables, which are a measure of social trust (the average survey answer to the classic question asking if other people can, in general, be trusted) and of the average number of memberships in a variety of community organizations (both variables derived, as are the SWB data used here, from three waves of the World Values Survey), have similar coefficients in both equations, so that even though they are much higher in Sweden than in other countries, they are not part of the explanation of Sweden’s differing ranks in life satisfaction and in suicide. In case you are wondering about the effect of long winter nights, it is possible to find a slight role for high latitude as a factor raising suicide rates (Helliwell 2004, Table 5), despite the long-established seasonal pattern showing suicide rates highest when the days are longest.

Perhaps the most important benefit from the mutual confirmation of the life satisfaction and suicide models is that the legitimacy of the subjective

Figure 1
International differences in well-being and suicide
(standardized coefficients from World Values Survey)



measures should thereby be increased in the eyes of those who are more convinced by actions than by words. The two types of data tell remarkably consistent stories, and the SWB data are very cheap and easy to collect, and permit a much finer-grained analysis than is possible using suicide data, since suicide fortunately remains a rare event. However, there are circumstances in which the suicide data can be used in a convincing way even at the community level, in circumstances where there are no SWB data available. Thus, Chandler and Lalonde (1999) found strong confirmation of the importance of local governmental engagement and efficacy in their study explaining suicide rate differences among aboriginal communities in British Columbia. Those communities with self-government and four other markers of local governance and social continuity had zero suicide rates, while the rates in the other communities were up to Russian levels and beyond.

What Are the Policy Gaps?

The conference papers and the well-being data alike confirm that national economies and societies remain very distinct, and that the quality of governance is not only sharply different across countries, but is perhaps the single most important variable explaining international differences in well-

being. Canada and the Scandinavian countries are especially well placed to use these results to inform their design of global strategies. They do not carry the baggage of military and commercial power, yet do have much experience in governance and community development. Being smaller countries, they are also already inherently more aware of what is going on in the rest of the world, and less likely to be inclined to think that there is a single right answer, or that their own institutions are the best of the lot.

All of these countries have already been stalwart and unselfish supporters of multilateral efforts and institutions, and this strand of their engagement deserves continuous support and development. The new research suggests that the old "Washington Consensus" was much too narrowly focused on purely economic policies and outcomes, and did not pay adequate attention to the need for institutional strength as a precondition for successful openness to world markets. The international financial institutions (IFIs) are indeed learning the relevant lessons, and much of the path-breaking research is being done by their research staffs. I think here especially of the large project supported by the World Bank in evaluating different ways of developing governance in a large number of Indonesian communities. This is very much the sort of bottom-up approach that may not make headlines at the outset, and is not a mega project in any sense, but it is likely to provide not just better governance in the participating communities, but useful lessons for those in many other countries and communities.

There is much that can be done beyond the IFIs, since the global reach and governance of the IFIs make them inevitably unwieldy and slow to respond. Individual countries and purpose-built coalitions are much better placed to lead experiments, preferably at the peer-to-peer level, in the development of effective governance. These projects are perhaps most critical, but also most difficult, in the failed states currently wracked by civil strife and riddled with corruption. But there are also many other less dramatic situations where real progress can be made. The organization and delivery of world aid in the wake of the Tsunami can provide not just alleviation of immediate hardship, but also the opportunity to develop new partnerships and linkages in the process. The important lesson from the research is that aid dropping from the sky creates only cargo cults, while aid that is delivered with an eye to institution building can provide the capacity not just to maintain and restore life, but to develop stronger and more secure communities. This lesson applies equally to aid provided by non-governmental organizations and industry as it does to that provided by national governments and the IFIs.

As I argued in *Globalization and Well-Being*, embracing a global strategy of the sort outlined above can and should be consistent with efficient management of the North American economic and political space. But it does

suggest that further preferential North American integration would be likely to lessen Canada's ability to be, and to be perceived as, an independent thinker and doer in the global scene. Canada, and the world, stand to gain from a reversal in the FTA-inspired trend towards preferential trading blocs. A more efficient and promising path is represented by global rules and multi-polar development linkages.

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Discussion 3

William R. White

When I was asked to participate in this panel, I asked myself why the organizers might have thought me qualified. After all, my professional experience is dominated by the twenty-two years I spent at the Bank of Canada, which sounds pretty domestic. Nevertheless, the last ten of these years were largely on the international side. Moreover, I have spent thirteen years working outside the country—three at the Bank of England and a further ten (and counting) at the Bank for International Settlements (BIS). In this latter post, given that the primary function of the BIS is to foster international co-operation among central banks and regulatory authorities, I have had the opportunity first-hand to watch Canadians at work with their international counterparts and to evaluate their contribution. Given this background, I concluded that I was not only knowledgeable enough to comment on the subject suggested, but also extremely pleased to be asked to do so. My evaluation is that, in this international area, at least, Canadians continue to punch well above their weight.

I want to deal briefly with four issues pertinent to Canada's role in international macro policy. First, I look at the contribution of Canadians to the intellectual framework behind the international pursuit of price and financial stability. Second, I examine contributions by Canadians to the process of international co-operation itself, putting existing processes to best use and recommending changes in the processes. Third, I provide an overview of the "people factor," those Canadians whose efforts have particularly enhanced the co-operative process in recent years. Fourth, I consider ways in which Canadians might be able to further support the process of international co-operation in the monetary and financial spheres. It is unfortunate that the

divide between the United States and continental Europe has been widening, perhaps implying an enhanced role for others if co-operative solutions are to be found.

The tone of my comments might appear, to some, to give excessive importance to a distinctively Canadian contribution to international deliberations. As a Canadian living abroad, I admit to a natural bias in this regard that I may not have been able to resist fully. In any event, as the last speaker at this conference, I felt it my duty to help the participants (who were mostly Canadians) leave as proud and "happy" as they possibly could. As John Helliwell has just reminded us, fostering happiness is what good economics is really all about.

Contributions to the Intellectual Framework

If countries individually, or collectively, are to achieve price and financial stability, they must have the proper intellectual framework to guide policy decisions. Canadians have made seminal contributions in this regard, particularly but not exclusively relevant to small open economies. Indeed, Canadian academics like Jacob Viner, Harry Johnson, Robert Mundell, and Ronald McKinnon (along with John Helliwell and Richard Harris, who are here today) can almost be said to have invented the macroeconomics of small open economies. But today I would like to focus more on the contribution of Canadian "officials" to international macroeconomic policy, with emphasis on the intellectual contribution of the Bank of Canada. My point is not that we were always right; indeed, I fear we were often wrong, but we were certainly at the cutting edge of the thinking being done in this area by the international community of officials. Let me begin by listing just a few of our accomplishments with respect to traditional macro issues.

In the pre-war period, Robert Bryce (subsequently Canada's Deputy Minister of Finance) was instrumental in spreading Keynesianism. Fresh from Keynes's lectures in Cambridge (United Kingdom), he went in June 1935 to Friedrich von Hayek's seminar at the London School of Economics and "expounded the new doctrine" (Skidelsky 1992, 532). In early 1936, he went to Cambridge (Massachusetts) (again Skidelsky) to "start the indoctrination of Harvard before the General Theory appeared" (p. 580). After vigorous debate, and in the face of significant international opposition, Canada also became the first industrial country to float its currency in the postwar period. Moreover, it did so in response to upward pressures arising from higher commodity prices generated in part by the Korean War, a fact that those responsible for the Bank of Canada's exchange rate equations will not find surprising. Lurking behind the initial decision to float was the early recognition by Canadian officials that this was required in order to avoid

importing inflation from outside Canada, the United States in particular. And behind this was the further thought that inflation was harmful rather than helpful to economic growth and prosperity—sand rather than grease in the wheels. Indeed, in some of Louis Rasminsky's speeches, the concept of a positively sloped long-run Phillips curve seemed to significantly predate the more formal constructs of both Milton Friedman and Edmund Phelps.

During my time at the Bank of Canada, although certainly not of my doing, a number of other intellectual steps were taken. The Bank of Canada was the first to adopt monetary targeting in 1974, recognizing clearly that floating required some kind of nominal anchor. The Bank was also among the first central banks (preceded by New Zealand, but by only months) to adopt explicit inflation targeting in 1990. I am somewhat ashamed to say, however, that when we did it we had no idea that we were actually following a recommendation of Keynes (1923) in *A Tract on Monetary Reform*, or that the Swedes had for a time followed a similar policy in the early 1930s. The monetary conditions index (MCI), for better or for worse, was also invented by the Bank of Canada, though—I admit, again with some reticence—without a full understanding at the beginning of the insights provided as to its usefulness by the well-known paper by William Poole (1970).[1] Nor was there a great deal of science in the initial choice of the weights in the MCI, which, as I recall, were simply an average of the weights given by the four or more competing macro models being used at the Bank of Canada at the time.

This brings me to another area where the Bank of Canada did pioneering work: large-scale macroeconometric modelling. The Bank was certainly the leader in Canada in this area, and eventually produced work that had a material influence globally. The first of the large models was RDX1 (RDX standing for Research Department Experimental). It was constructed by a joint team of bank employees and visiting academics, reflecting the belief of the Bank management at the time (a belief I still maintain) that these two

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1. Poole felt that, whether a monetary authority used the interest rate or the money supply as the intermediate target of policy, depended on the source of the shock; did it come from the IS curve (choose to stabilize the money supply, since then interest rates rise automatically in a stabilizing way) or from the LM curve (then stabilize the interest rate to prevent unwanted effects on the real economy). Similarly, an MCI framework, if applied such that exchange rate changes automatically lead to offsetting interest rate changes to keep the MCI constant, effectively assumes that the shock hitting the exchange market arises in that market and does not have a real counterpart. In fact, if the exchange rate pressure is arising from changing commodity prices, as is very common in a country like Canada, then the use of an MCI framework in a rather mechanical way is not the appropriate policy.

communities could learn a great deal from one another. Among the bank employees, two went on to become Deputy Ministers of Finance for Canada. Among the academics, I would single out John Helliwell (who has just finished another year visiting the Bank of Canada) and Harold Shapiro, who went on to become the President of Princeton University. RDX1 was soon replaced by RDX2, but both were designed for simulation purposes rather than routine forecasting. Given the desire to do this latter task, RDX2 was then replaced with RDXF (F representing "forecasting") in the late 1970s, which had similar simulation properties but was much more "user-friendly." Unfortunately, as time wore on, the limitations of the model's structure became ever more apparent. The end result of efforts to rectify these difficulties was the Small Annual Model (SAM), which led in turn to the Quarterly Projection Model (QPM). Both of these models were pioneering in that they had the capacity for imposing consistent sets of expectations about future developments that could "rationally" determine current behaviour. Moreover, they had consistent stock and flow accounts that allowed movements in endogenous variables to be anchored in long-run sustainability conditions. While at each stage of this modelling work the Bank was well up at the head of the pack, it deserves to be noted that versions of QPM are now being used in many countries around the world as well as at the International Monetary Fund (IMF).

I think too that the Bank of Canada was among the first to use models to determine the setting of the instruments of policy in a practical context. In the late 1970s, Paul Masson (who is here today) and I used a simple renormalization of the estimated demand for money function to determine the interest rate needed to hit (six months hence) the growth rate for the money supply (M1) then being targeted by the Bank. While it was an intuitively obvious way to proceed, a problem with the process became evident almost immediately. Although the fit of the equation was remarkably good, the size of the error term was still large enough to ensure that even the direction of the implied interest rate change was dependent upon assumptions made about the error term's future behaviour. As Gerald Bouey once remarked ironically in a semi-public speech (and I paraphrase), "Thanks are due, for giving the Governor something on which he can really take a stand." While we eventually dealt with this problem in a practical way, the experience underlined the fact that there can be a vast difference between statistical and economic significance. QPM marked another step forward in that both the policy rate and the exchange rate could be endogenized to ensure that the inflation target of that time was hit two years hence. In the end, there was nothing mechanical about how policy rates were set, but these insights from the model served as a useful input into the regular policy-making process.

Another aspect of the intellectual contribution made by policy-makers at the Bank of Canada was their ongoing willingness to admit the shortcomings in their policy framework and their readiness to move on to new thinking and to new ways of doing things. I think that in light of some recent developments, they might be well advised to subject the current inflation targeting framework to a similar critical analysis. However, I will return to this in a moment.

And let me add briefly that, if Canada has been something of an intellectual pioneer on the macro side, this has also been true with respect to issues of financial restructuring. Canada was one of the first countries to remove capital controls after World War II, and subsequently to remove controls over interest rates. Moreover, the Bank of Canada actively promoted the development of short-term money markets in Canada with a view to relying on "market-determined prices" as the centrepiece of monetary policy. In this regard, it predicted but was consistent with the recommendations of the Royal Commission on Banking and Finance (the Porter Commission of 1964), which emphasized the merits of greater competition, freer markets, and better regulation to enhance efficiency. Seen against the backdrop of other countries, where extensive government controls in the financial sector were still thought desirable in light of developments in the 1930s, this was a groundbreaking development. Canada was also a pathbreaker in actively promoting "national" banking to exploit regional diversity in lending. And finally, to bring us right up to date, Canada was the first industrial country to agree to the IMF carrying out a Financial Sector Assessment Program. The logic was that we had nothing to hide and, if there were problems to be fixed, then the sooner they were addressed the better. A large number of these welcome structural initiatives are now being imitated in many emerging-market economies around the world.

Contributions to the Process of International Co-operation

Canada's representatives have made a number of contributions to the process of international co-operation. Within existing frameworks, they have contributed to raising the quality of the international dialogue and have often served a useful function as honest broker. Moreover, at various times, they have contributed to improving the processes themselves. Their ability to do these things rests on a number of Canadian attributes, albeit attributes likely shared with some other smaller countries. Consistent with what has been noted above, the generally high quality of the ideas put forward by Canadians creates an atmosphere of intellectual respect. The fact that the country is relatively small and non-threatening is another plus, as is

Canada's reputation for trustworthy and not entirely self-serving behaviour. Finally, there is a certain Canadian deference and modesty of approach that seem to avoid putting people's backs up. I very much hope that my rather "immodest" presentation today will not prove a setback in this regard.

As to the quality of the international dialogue, it has been my observation that Canadian contributions have normally been exceptionally well prepared, which may reflect the relative smallness of Canada. This means that international issues must be taken seriously, rather than treated as a distraction from the domestic business that is really important. A further personal observation concerns those Canadian presentations I have heard that seem to have generated the most enthusiastic response. Generally, they have emphasized "ideas" that were of potential use to others, rather than focusing on the specifics of what was going on in Canada. The sad truth is that nobody really cares about the latter, so the intellectual track seems clearly preferable.

As to the honest broker role, which we all learned about in Political Science 101, I think it really does exist in the area of international financial co-operation. While I could give many examples, a quote from the recent biography of Louis Rasminsky seems to me to be perfectly illustrative. Bruce Muirhead (1999) quotes Rasminsky that "A large part of [his] intellectual life was invested in the idea of international collaboration and the machinery that made collaboration possible" (p. 82). He believed that multilateralism was the only solution to global problems, and at Bretton Woods, he "became the consummate mediator between the British and US negotiators." As Lionel Robbins wrote at the time, "Rasminsky is so competent and so obviously disinterested that it would be difficult not to take him seriously" (Muirhead 1999, 104). I think that many other Canadians have shared these attributes over the years, although likely none to the same remarkable degree.

Turning now to Canadian contributions to changing the process itself (the machinery just alluded to), we find again that there are many illustrative examples. As a counterpoint to more historical allusions, a recent and important paper by Mark Kruger of the Bank of Canada and Andrew Haldane of the Bank of England (Haldane and Kruger 2001) puts forward the case for notional lending limits for the IMF. The proposal attempts to bridge the gap between the US wish for discretion in the nature and size of Fund lending and the wish of the continental Europeans for more rule-based behaviour, against the backdrop of a common belief that Fund lending programs cannot continue forever to expand in size. Closely related in time, Canada's agreement to issue foreign currency denominated bonds containing collective action clauses (CACs) was an attempt to lead by

example and to induce emerging-market economies to do the same. CACs hold the promise of less disorderly sovereign defaults and, for a variety of reasons, are now being widely used. And finally, since John Crow is in the audience today, I would be particularly remiss if I did not mention his efforts to improve the process of international co-operation at the BIS. When he was Chairman of the G-10 Governors, John made a spirited attempt to increase the membership of the G-10 to include other important countries. While he failed to do so at that time, the BIS found other ways to pursue his initiative for greater inclusiveness. It now welcomes a very much larger number of countries, including virtually all of the systemically important emerging-market economies, to its various meetings, and has expanded its share membership along similar lines.

The People Factor

For many years, Canadians have been disproportionately represented at the international level, and only partially because we are competent and we come cheap. Today, if we look at the major international institutions concerned with economic issues, I would have to begin by noting Malcolm Knight, who heads the BIS, and Donald Johnson, who heads the Organisation for Economic Co-operation and Development (OECD). Moreover, each happens to have among his senior staff other Canadians, some like myself and Michael Kennedy, fortunate enough to have also spent many years at the Bank of Canada. And of course, at the IMF and World Bank, there have been innumerable Canadians in senior positions, including William Hood and, more recently, Paul Masson. While not an international financial institution, the United Nations is also very interested in international macroeconomic issues. The fact that another Canadian, Louise Fréchette, formerly Assistant Deputy Minister of Finance, is Deputy Secretary-General, should also be recorded.

Turning now to the international groups of national experts who co-operate on financial stability issues, generally meeting at the BIS, Canadians have again made and continue to make a big contribution. Nicholas Le Pan, Head of the Office of the Superintendent of Financial Institutions (OSFI), led the Accounting Task Force of the Basel Committee on Banking Supervision. Moreover, he is currently in charge of what is arguably their most important task force today—the worldwide implementation of the New Basel Capital Accord. Tim Noël of the Bank of Canada was instrumental in the early work of the Committee on Payment and Settlement Systems (CPSS), as was Charles Freedman, who also chaired a major working group on the monetary implications of electronic money. John Palmer, the previous Superintendent of OSFI, was chosen to head the most controversial of the

first three working groups set up by the Financial Stability Forum (that on offshore financial centres), and John Thompson was the first Chairman of the International Association of Insurance Supervisors. Finally, Jean-Pierre Sabourin of the Canadian Deposit Insurance Corporation (CDIC) and John Raymond Labrosse (currently of CDIC but also ex-Bank of Canada) have been instrumental in setting up and continuing to direct the International Association of Deposit Insurers. So, I repeat, on the people side, we continue to punch above our weight.

A Canadian Contribution Looking Forward

One problem I see is that the transatlantic divide, which has widened in recent years, could be maintained or even widened. The role that might then be played by honest brokers could well be enhanced. I see two major areas where people need to say the "unsayable" with a view to promoting discussion between the United States and much of Europe. In both cases, the objective would be to promote steps to avoid potential financial crises.

The first and more immediate issue has to do with the US dollar and the prospects of a "disorderly" solution to its unsustainable level. The dollar is currently being supported in effective terms by massive foreign exchange intervention on the part of a number of foreign governments, particularly, but not exclusively, in Asia. On the one hand, it could be argued that this should immediately come to a halt, since it is impeding the external adjustment process in two ways. First, intervention itself impedes the exchange rate changes that provide the impetus for needed substitution between tradables and non-tradables in creditor and debtor countries, respectively. Second, the purchase by foreign governments of US Treasuries may be pushing down long-term interest rates in the United States, thus increasing absorption rather than decreasing it as needed. On the other hand, it could also be argued that a sudden halt to such behaviour, and a sharp decline in the value of the dollar, could have unwanted effects. In particular, if US long rates rose precipitously from current low levels, some of the "bubbly" components of today's financial markets (high risk and sovereign spreads, the value of equities and real estate, and volatility) might tip over into the "bust" phase with significant implications for growth and employment. This would clearly affect the United States, but creditor countries (to the extent that their wealth was held in dollar-denominated assets) would also be affected by such financial events. In the world in which we live, exchange rate changes now have much more than just trade substitution effects.

Perhaps there is merit in discussing the need for a Plaza-like agreement—but with the Asians being important players—to arrive at some intermediate

solution. Many Europeans would view this positively, but the US view seems less receptive. As John Connolly once famously said, "Our dollar, your problem." Canada has a particular interest in this issue, since market pressures leading to a lower US dollar are now being unnaturally channelled into sharp upward movements for those relatively few currencies that are actually freely floating. Obviously, the Canadian dollar is one of them.

The second issue is less pressing but no less important. I and some of my colleagues at the BIS believe that a combination of economic and financial liberalization, allied with a monetary policy solely focused on CPI (or personal consumption expenditures) inflation, has made the world much more prone to financial booms and busts. In effect, a liberalized financial system (for all its benefits) is more prone to credit excesses than a repressed one, and there is no resistance to this when the monetary authority observes that measured inflation is well under control (again with all its benefits). This kind of thinking leads one to conclude that we need to develop an effective macrofinancial stability framework (involving both monetary and regulatory policies) to deal with such problems. One important element of this would be a much more symmetric response of monetary, fiscal, and regulatory policies over the cycle.[2] Again, many Europeans are sympathetic to these ideas, but the thinking of officials in the United States seems much less so. Since financial booms and busts can have economic implications well beyond domestic borders, an international dialogue on such issues would seem to have merit. In summary, Canadians may have done a lot to foster international co-operation in the pursuit of monetary and financial stability, but there remains a great deal left to do.

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2. A more detailed expression of such views is given in White (2004).

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General Discussion*

Paul Masson asked the panel to comment on a view that called for recognition of Canada's diminished influence in international forums and for a foreign policy directed towards achieving specific and realistic objectives with the United States. With respect to international financial institutions, Masson noted that recorded failures with respect to financial crises and developmental shortfalls were not due to poor thinking by staff in these institutions but rather to the lack of will to carry out reforms. John Helliwell noted that it was unlikely that the current US administration would be sensitive to Canada's input. For another, what mattered ultimately was the quality of public institutions. We should strive to improve them at home and share our best with other countries. Building global trust and relationships was more important for Canada than courting power. Bill White added that the world had changed with the growing US unilateralism. While this called for more multilateral talks, it was unlikely that the US administration would be responsive to these initiatives. He contrasted the leverage that the International Monetary Fund possessed to the role of the Bank for International Settlements, which was to provide a forum to exchange views. Mark Carney also doubted that the US administration would listen to Canada.

Bill Robson asked Bill White to elaborate on how monetary authorities could deal with asset bubbles in an inflation-targeting regime. White responded that we could be facing this situation now, as global supply has expanded and partly shifted to low-cost producers (e.g., China) as financial liberalization proceeded apace in many countries. The result is a world

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* Prepared by Robert Lafrance.

awash with liquidity—monetary policy is generally too expansionary—but with limited inflationary pressures in goods markets. In contrast, asset-market prices have risen considerably. John Crow added that in a low real interest rate environment, speculation is encouraged. He asked Mark Carney who had the most influence in setting the agenda at G-7 and G-20 meetings. Carney replied that the agenda was driven by finance ministers, not leaders, that the G-7 dominates the G-20 agenda, and that the chair in the G-7 has a larger influence.

Chris Ragan asked the panel to comment on how global imbalances could be corrected and the risk of a disorderly US dollar depreciation. Should we be sanguine? What role could Canada play as an honest broker? What are we likely to see? John Helliwell referred to earlier work on fiscal and external deficits. He said that a lot depended on how US fiscal policy would play out going forward and that a major dollar correction would probably occur more abruptly than what econometric models would indicate. Bill White said that China has to be the first mover (in freeing its currency), but it won't be because of concerns about domestic financial fragility. White added that US fiscal policy should retrench, but this won't happen either. A major problem is that, while most countries want the United States and China to slow down, they depend on these two locomotives for their own growth. Mark Carney pointed out that Canada has stayed the course on macropolicy, has not complained about exchange rate movements that are required to resolve global imbalances, and that it has done more than its share on the latter. Canada has a seat at the table. We should engage in constructive dialogue to persuade others, notably China, that proposed adjustments to their policies are in their own best interests.

Farid Novin asked what the goal of the G-7 should be—should it be limited to members' own interests or to something broader? Mark Carney suggested that our economy is so open that our interests can mesh with the common interests of a well-functioning global economy, but that our influence is limited, so we have to choose our issues. Bill White said that the current marriage of convenience between the United States and its Asian financiers was the biggest vendor-financing operation in history and that it could not go on for ever. He thought a market solution would be disorderly and that policy co-operation would be preferable. John Helliwell argued that research has shown that human beings are less selfish than portrayed in economic theory. Humans are social animals and this applies to countries as well. So co-operative solutions are quite feasible. He then explained the value of small nation states that provide a diversity of ways of tackling social and economic issues.