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**The Tony Hampson Memorial Lecture**  
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**THEN AND NOW: THE CHANGE IN VIEWS ON THE ROLE  
OF MONETARY POLICY SINCE THE PORTER COMMISSION**

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**A. TONY HAMPSON AND THE PORTER COMMISSION**

Tony Hampson made a number of outstanding contributions to Canadian public life as well as having a successful business career. Many in this audience will be familiar with the fact that for a number of years he was Chairman of the C.D. Howe Institute's Policy Analysis Committee. Early in his career, he worked on the Royal Commission on Canada's Economic Prospects (the Gordon Commission) and, most prominently, served as secretary of the Royal Commission on Banking and Finance (the Porter Commission).

His colleagues, on these Commissions as elsewhere, remember an engaging personality, an ambitious and demanding manager, a clear-headed analyst, and a thorough and helpful editor. He was also a superb communicator and writer. Let me quote the acknowledgement in the Porter Report: "Our greatest debt has been to Mr. H. A. Hampson, the Secretary of the Commission. His intellect, organizing ability and energy proved invaluable in the planning of our work, the development of our views and the drafting of our entire report."<sup>1</sup>

The hearings and analysis undertaken in the early 1960s by the Porter Commission, together with its Report and the discussions it generated, were events of major importance for the Canadian financial system and for the Bank of Canada. Indeed, I will suggest in this lecture that the Porter Report contained the seeds of a major reorientation of thinking about financial structure and monetary policy. Its emphasis on competition, and on the use of market mechanisms in the implementation of monetary policy, clearly showed the way ahead. It also foresaw many of the subsequent changes in financial institutions and markets. Moreover, the

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1 Porter Commission Report, p. 572.

Commission underlined the necessity for inflation control at a time when the view that inflation could be traded off for lower unemployment was gaining in popularity.

The Commissioners themselves, chaired by Chief Justice of Ontario Dana Porter, were people of experience and insight. They assembled an extraordinarily talented young research staff, and Tony Hampson proved to be an admirable team leader.

The Commission believed in markets. This was not such a popular stance at the time. Extensive government controls, a legacy of the post-World War Two period, were still in place in many advanced economies, and they were widely thought to be necessary, if not desirable. In contrast, the Porter Commission felt that the somewhat more liberal financial regime in Canada was by and large working effectively. The financial system had played a central role in the post-war expansion, especially in the smooth financing of the tremendous wave of investment in the 1950s. Moreover, at the time it was undergoing considerable change, in response to the evolving demands in the financial markets of households, firms and governments. On the basis of this encouraging experience, the Porter Report came out strongly in favour of increased competition and deregulation. It was aware that this might entail some risks, but thought they were worth taking.

This advice was followed in the revisions to federal financial legislation of 1967, notably in the following measures:<sup>2</sup> removal of the 6% ceiling on bank loan rates; permission for banks to enter conventional (i.e., non-government-insured) mortgage lending; prohibition of interbank agreements on interest rates and of interlocking directorates; and the reduction of the burden of cash reserve requirements on chartered bank deposits.

These measures have stood the test of time and have served Canada well. For example, the liberalization of interest rates allowed financial institutions to adapt appropriately to the requirements of the more volatile financial environment of the decades that followed. Canada was spared the systemic weaknesses caused elsewhere by ceilings on administered interest rates. In the United States, for example, such ceilings were a major factor encouraging the unbalanced portfolios of the thrift institutions, which in the 1980s would be revealed as a fatal flaw.

In more philosophical terms, Porter's arguments on financial liberalization and competition were ahead of their time, and still read very well today.

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<sup>2</sup> The main revisions were to the Bank Act and the Bank of Canada Act. While the Commission had recommended a comprehensive definition of banking, the legislation did not go so far as to eliminate distinctions between different kinds of financial institutions. Moreover, the Commission was against government-backed deposit insurance, which was nevertheless enacted in 1967, following a run on a trust company.

I cite all this to underline that the Porter Commission made an important difference to our financial landscape. But financial reform, important and topical though it may be, is not the central theme of my lecture. Instead, I will focus on the Commission's work on the conduct of monetary policy. First, I will set out a broad characterization of the view of monetary policy in the Porter Report. I have not tried to provide a thorough description of the Commission's analysis of monetary policy. Rather, I have focused on a few general policy issues that strike me as important. Next, I will present the general approach to policy that is taken today. Comparison of the two, you will see, reveals some striking differences, but also some common themes. These themes lead me to the view that the Porter Commission Report and the surrounding debate were a key step in the evolution towards the current monetary policy framework in Canada.<sup>3</sup>

## **B. THE PORTER COMMISSION VIEW OF MONETARY POLICY**

### **1. The basic framework**

The Porter Report in most respects adopted a standard 1960s view of monetary policy. It was the heyday of Keynesianism, in official circles as well as in the universities. Although Milton Friedman and his collaborators had begun their restoration of the quantity theory with some impressive, if controversial, empirical work,<sup>4</sup> theirs was very much a minority view in the early 1960s.

There were four key tenets in the standard view of monetary policy at the time.<sup>5</sup>

First, monetary policy was seen as just one element of macroeconomic policy, which in its entirety has multiple objectives (high employment and output, low inflation, rapid economic growth, external balance, etc). And it was argued that monetary, fiscal and debt

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3 The Commission also dealt with the issue of central bank governance. It recommended formalizing the agreement on dual government-Bank of Canada responsibility that Louis Rasminsky had drawn up before accepting his appointment as Governor. In consequence, the Bank of Canada Act was amended in 1967 to provide the Minister of Finance with the right to issue a directive to the Bank if the government disapproved of the Bank's policy. Thus, the government is ultimately responsible for monetary policy, but if no directive is issued the Bank has full responsibility for designing and implementing monetary policy.

4 See, for example, Friedman (1956).

5 These ideas were also to be found in similar inquiries of that time in the United Kingdom (the Radcliffe Report) and in the United States (the Commission on Money and Credit). However, there were some differences in the argumentation of the three reports. For example, Radcliffe was most interventionist while Porter was the strongest advocate of market mechanisms.

management policies should be coordinated in pursuit of these objectives. These propositions reflected a strong focus on the short run. While there is no doubt that monetary policy and fiscal policy both affect real variables in the short run, it was less clear at the time that the effects of monetary policy on the demand for goods and services did not extend into the longer run. Given its short time horizon, it was not surprising that macroeconomic analysis in the 1960s focused on stabilizing output and employment.

Second, monetary policy on its own was viewed as not very effective. Large movements in credit conditions or interest rates might in theory have a large economic impact, but they had to be avoided because of harmful side effects (instrument instability, financial instability, balance of payments repercussions, etc.). The changes in credit conditions that were feasible had a comparatively limited effect.

Third, the credit channel was thought to be the main source of impact of monetary policy on the economy. Conventional monetary policy instruments (open-market operations, bank reserve management, and Bank Rate changes) were said to affect credit flows by changing the liquidity positions of financial institutions. This credit channel embodied the effects of both the availability and the cost of borrowing. However, its overall influence was complex and typically slow; and the impact of an easing of credit was considered to be especially weak -- "you can't push on a string."<sup>6</sup>

Fourth, a need was seen for moral suasion or formal controls on lending in difficult short-run situations, such as balance of payments crises. The Commission recognized the defects of such measures: arbitrary discrimination, economic distortions, and eroding effectiveness over time. However, the general view at the time was that such controls were helpful when quick effects were urgently needed.

## **2. The relationship between inflation and economic activity**

In 1958, A.W. Phillips published the analysis of the relationship between wage increases and unemployment in the United Kingdom that now bears his name, and researchers in the United States soon found a similar relationship.<sup>7</sup> By the early 1960s macroeconomists were regarding the Phillips curve as a description of a *policy trade-off* between inflation and unemployment. By accepting more inflation, it seemed possible to reach a higher level of output. A seminal study of the policy implications of the Phillips curve was in a Royal Commission

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6 Porter Commission Report, p.434.

7 Phillips (1958), Samuelson and Solow (1960).

Working Paper by Grant Reuber.<sup>8</sup> The Porter Commission accepted this line of reasoning and argued that a balance had to be struck between the goals of price stability and maximizing output, and that neither should be pursued to the exclusion of the other.

At the same time, however, the Commission was aware that inflation could have very negative longer-run consequences for the economy. “The objective of stable prices..., while desirable for its own sake, is also important as a means to a wider end.... rising prices can weaken real economic growth by undermining the system of fixed value contracts on which efficient business is founded, by generating a fear of long-term saving and lending commitments, and by diverting real resources into unproductive and inefficient channels ....”<sup>9</sup>

In a similar vein, the Report rejected the argument for mild inflation to lubricate real wage adjustment, after noting that productivity was increasing at two per cent a year, so that a considerable degree of adjustment was possible without real wage declines, and that measures to increase market flexibility were a better solution. The Report also described inflation as acting “like a drug whose dose must be continually increased to get the same effect: if the authorities permitted the economy to become addicted, the inevitable return to reality would bring about very painful withdrawal adjustments.”<sup>10</sup>

These passages were prescient in the light of what was to happen over the next 20 years. However, the Report struggled to reconcile its advocacy of multiple targets with its vivid warnings about inflation. The tension between the two, we can now see, stemmed largely from a lack of clarity about relevant time horizons. The multiple targets approach to monetary policy focused on the short-run trade-off between inflation and unemployment. It did not recognize that this trade-off disappears over time as inflation expectations adjust to changes in the rate of inflation. The idea of a vertical long-run Phillips curve, which was implied by the adjustment of inflation expectations, was developed only later in the decade.<sup>11</sup> At the same time, the Report did recognize the likely damage that inflation could cause in the longer run to the productive capacity of the economy.

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8 See Reuber (1962, 1964).

9 Porter Commission Report, pp.399-400.

10 Porter Commission Report, p.419.

11 The main authors were Milton Friedman (1968) and Edmund Phelps (1967).

In the end, the Report did not recommend the firm guideline for monetary policy that its spirited advocacy of price stability would, in retrospect, seem to have justified.<sup>12</sup> Despite this ambivalence, the Commission was more far-sighted in its concerns about inflation than the consensus of economists of the day, which was that the Bank of Canada had been investing too much in fighting inflation.<sup>13</sup>

### **3. The scope for monetary policy under a fixed exchange rate**

Canada had been on a floating exchange rate regime when the Porter Commission was appointed in October 1961, but the government adopted a fixed exchange rate in May 1962. Given the degree of asset substitutability between Canada and the United States, Canadian interest rates were thereafter tightly constrained by the objective of maintaining the dollar at the parity of 92.5 U.S. cents.<sup>14</sup>

With respect to longer-run policy objectives, as we know today, the fixed exchange rate implied that monetary policy in Canada would be mainly determined in the United States. However, the prevailing opinion among economists, reflected in the Porter Report, was that Canadian monetary policy could nevertheless serve a constructive short-run purpose with respect to the range of macro-economic policy objectives, as long as the currency was fixed at a reasonable value and the government had an adequate reserve of foreign exchange.

At the time, most policy-oriented economists did not draw the sharp distinction we now do between fixed and floating exchange rate regimes. To understand this, we have to recognize three factors. First, under Canada's floating exchange rate regime of the 1950s — which was the only post-war experience in the industrialized world to go by — variations in the exchange rate had been quite modest, as had the movements in Canada-U.S. interest rate differentials. That is, in practice, the float did not appear to be very different from a fixed rate regime. Second, with their focus on short-run output and employment, policy-makers tended to neglect the possible inconsistency between the objective for domestic inflation and the fixed exchange rate. Third, the theory of monetary policy in an open economy was in a fairly

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12 The Submissions of the Bank of Canada also pointed to the importance of restraining inflation (II, paragraph 59): “Central banks feel a particular obligation for seeing that in the consideration given to the proper ‘mix’ of public policies adequate emphasis is at all times placed on price stability... being in a position to exercise an influence on the volume of money, they must inevitably be concerned with its value.”

13 In part these views stemmed from theories of inflation that emphasized non-monetary factors, e.g. cost push, union or seller power, demand shift, struggle for income, and so on.

14 Exchange controls had been eliminated in the early 1950s. The Canadian dollar would remain fixed until June 1970.

rudimentary state.<sup>15</sup> The severe constraints that a fixed exchange rate imposes even on short-run monetary policy choices in a world of high asset substitutability were not fully appreciated at the time.

In the case where a conflict might materialize between domestic objectives and the fixed exchange rate for the dollar, the Commission recommended that domestic considerations should prevail, and that the exchange rate parity be allowed to change. But it did not reopen the debate over the exchange rate, which had been a topic of heated political controversy earlier in the decade. By 1964, at the time the Report was published, the view of the Canadian authorities was very much that the fixed exchange rate system was appropriate, and that the existing parity was in the right range.

#### **4. Monetary policy instruments and the transmission mechanism**

Both the Porter Commission and the Bank in its submissions described the transmission of monetary policy actions in terms of their effects on credit conditions. By credit conditions they meant “the whole range of terms and conditions affecting borrowing and lending and the purchase and sale of financial assets.”<sup>16</sup> This would include, most importantly, interest rates, but also standards of creditworthiness, collateral, repayment periods, and other terms and conditions.

In general, whereas the Bank of Canada<sup>17</sup> stressed the importance of availability effects, the Porter Report was more inclined to give a central place to interest rates. One of the reasons why the Bank of Canada put so much emphasis on credit availability at that time was because, even apart from the 6 per cent bank loan rate ceiling, it believed that wide fluctuations in interest rates were not feasible. Indeed, historical experience was of a quite narrow range of interest rate movements. For example, the prime lending rate of the chartered banks, a key rate in the transmission mechanism, had never been lower than 4.5 per cent, while the maximum legal rate was 6 per cent — a range of 150 basis points. There simply had not been much scope for borrowing costs to vary.

As outlined by the Commission and the Bank, there were a number of possible reasons for this belief that wider movements in interest rates were not feasible: the possibility of instrument instability (with interest rates swinging abruptly), the potential effect of sharp changes in security prices on the stability of financial institutions, adverse public opinion, and the external

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15 Robert Mundell was at that very time making the contributions that would form the standard modern model for open-economy policy analysis. See Mundell (1961, 1962, and 1963).

16 Bank of Canada Submissions, II, para.11.

17 Bank of Canada Submissions, II, paras. 13 and 14.

constraint posed by the fixed exchange rate. While the Commission agreed with some of these concerns, it nonetheless argued that such considerations should not stand in the way of a vigorous monetary policy.

The Porter Report accepted, however, the description put forward by the Bank of Canada of the way that monetary policy affected the operation of chartered banks. The provision of cash reserves by the Bank of Canada would bring about changes in chartered bank holdings of liquid assets, which over time would affect the banks' willingness to make loans. However, when quick results were deemed necessary, the Bank felt that resort to direct limits on bank lending would be justified. On the several occasions that moral suasion had been employed in the 1950s, it had seemed to work. The Commission showed little enthusiasm for such intervention. It argued that controls impaired market efficiency, were discriminatory, and were of diminishing effectiveness over time. There was also a concern about their clumsiness, especially the delays in making instructions effective in bank branches across the country, and possible misinterpretation of their eventual withdrawal.

Despite all that was said and done about the credit conditions approach to monetary policy, empirically any significant effects seem to have been confined to a few brief periods of moral suasion and the impact on residential construction of the lags in changing the administered NHA mortgage rate and the interaction between this rate and the 6 per cent bank lending rate ceiling. The available empirical evidence did not indicate that changes in credit conditions systematically had much effect on aggregate demand. Econometric tests reported in the Commission's Working Papers show no significant effects on consumption and investment spending from interest rate or credit variables.<sup>18</sup> This seems to have been because monetary policy actions had not been very aggressive.

These results confirmed the conventional belief that ordinary monetary policy actions were not very effective. And this was a major reason for the insistence on policy packages with the right mix of fiscal and monetary policy, plus co-ordinated debt management policy, and on the possible need for moral suasion and/or some sort of direct controls on bank lending.

## **5. The role of debt management**

I have noted that the package of macroeconomic policies advocated during the 1960s tended to include debt management policy along with fiscal and monetary policies. Certainly, central bankers of the day regarded debt management policy as an integral part of macroeconomic policy. The Porter Report had some sympathy with this notion. There were three discernible lines of thinking here.

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18 Johnson and Winder (1962) and Reuber (1962).

First, monetary policy is itself a kind of debt management with an open market operation switching one public sector liability (central bank deposits) for another (e.g., treasury bills). Second, changes in relative supplies of debt could affect the liquidity of the banks and hence their willingness to lend. Third, debt management might directly alter the term structure of interest rates.

These notions may have had greater plausibility at the time, when there were some indications of segmented markets. But over time, market segmentation diminished in importance as both lenders and borrowers became increasingly willing to adjust the maturity of their commitments in response to interest rate differences across the term structure. Moreover, in the years following the publication of the Porter Report, evidence accumulated supporting the expectations theory of the term structure of interest rates. According to this theory, long-term rates are the average expected value of future short-term rates, plus a liquidity risk premium. Although in principle the latter could vary systematically as the composition of debt changes, in practice such effects, if they exist at all, are of too short duration to have any macroeconomic impact.

## **C. THE CANADIAN POLICY FRAMEWORK IN THE 1990s**

### **1. The basic propositions**

Between the 1960s and the 1990s, informed opinion about the appropriate role of central banks shifted radically. The current mainstream view can be briefly summarized in the following four propositions.

First, the main objective of monetary policy is to preserve the value of money, in other words to achieve a very low rate of inflation over the long run. Other economic objectives are not ignored, however, because price stability is the best contribution that monetary policy can make towards high employment and, more generally, towards a prosperous, growing economy. Second, an independent monetary policy or, more precisely, a domestically set objective for inflation, logically requires a floating exchange rate. Third, markets, and price mechanisms, work efficiently and thus provide effective channels for the transmission of monetary policy through short-term interest rates and the exchange rate. Fourth, short-term interest rates must be adjusted as much as required to meet the monetary policy objective.

Most of the present policy framework is, I hope, reasonably familiar to you. So I will spare you further detail. Instead, I would like to underline the magnitude of the revision that has taken place in accepted thinking about monetary policy since the Porter Commission, and to speculate on the reasons for the shift.

## 2. Contrasts in views about policy objectives

The sharpest apparent contrasts between the ideas and practices I have sketched for the two periods concern the objectives of monetary policy. Nowadays we focus the job of the central bank squarely on the single objective of price stability. In the 1960s, that would have been looked upon by most observers as an extreme and partial view of the role of monetary policy.<sup>19</sup>

What has been learned from the experience over the years is that high and variable inflation can be very costly for the economy and that aiming at low and stable inflation is the best contribution that monetary policy can make to achieving, over time, the multiple economic objectives espoused by Porter. Desirable economic outcomes can never be guaranteed, but chances of achieving them are best when inflation is low and stable. That is, low inflation is an indispensable asset for the achievement of the other economic goals.<sup>20</sup>

Consider, for example, the accepted view during the 1960s that there was an exploitable trade-off between inflation and unemployment. Along with the short-term perspective of policy-makers, this view led to excessively easy monetary and fiscal policies in most industrial countries. In Canada, we found ourselves confronted by an enormous and destructive inflation, with peaks in the mid-1970s and the beginning of the 1980s, and another bout of upward pressure in the late 1980s. Moreover, the high rates of inflation were accompanied by an economic slowdown in the 1970s (reflected in the coining of the term “stagflation”) and were followed by unusually sharp economic recessions in the early 1980s and early 1990s.

The idea of an exploitable long-run trade-off between inflation and unemployment was effectively demolished by this experience. And the lesson was reinforced by the success of the firm stance in favour of price stability taken by the German and Japanese central banks in the late 1970s.

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19 The Bank has long had a concern about restraining inflation. What was lacking in the past was the support from theory and experience to make that focus more precise and explicit. Public milestones in the evolution of the Bank’s views were three lectures by my predecessors: the 1966 Per Jacobsson Lecture by Louis Rasminsky on the objectives of monetary policy and the mechanisms through which it operates; the 1982 Per Jacobsson Lecture by Gerald Bouey, which highlighted the need for a “place to stand” or, in other words, for a “nominal anchor”; and the 1988 Hanson Lecture of John Crow, which singled out price stability as the objective of monetary policy in Canada. Also, I would draw attention to Gerald Bouey’s final Annual Report, for 1986, which emphasized the costs of inflation and the difficulty of reducing it once entrenched.

20 For a fuller explanation of the relation between price stability and other economic objectives, see Thiessen (1998-1999).

The inflation of the 1970s and early 1980s demonstrated just how costly inflation was and how difficult it was to eradicate once rooted in expectations. These experiences were key factors underlying the shift in views about monetary policy. They also were central to the acceptance of the expectations-augmented Phillips curve in place of the simple Phillips curve as part of the analytic framework underlying monetary policy.

This is not just theory or central bank ideology. As we look around the world and over history, we see that countries that achieve high standards of living and sustained strong output growth have also maintained low rates of inflation.

### **3. Understanding the role of the exchange rate in monetary policy**

As I explained earlier in this lecture, when the Commission was preparing its report, neither the then-current economic theory nor the Canadian experience of the 1950s provided strong evidence for the crucial role that exchange rate flexibility plays in the operation of monetary policy in an open economy like Canada's. When we floated our exchange rate in 1950 and again in 1970, it was because we were pushed off our pegged rate by the pressures of rising commodity prices and associated strong inflows of capital. The notion of a national monetary policy with an independent inflation target did not feature in these decisions.

As we now see it, a floating exchange rate plays two key roles. In the first place, in the long run a floating currency allows the central bank to pursue a national inflation target, regardless of the behaviour of foreign inflation. In the second place, variations in the currency allow the real exchange rate, and hence the economy, to adjust more smoothly to international shocks to relative prices.

It was only after currency and capital controls began to be removed (or were increasingly bypassed) in the post-war period, and domestic financial markets became more deregulated in a number of countries, that economists came to appreciate fully the interaction of domestic interest rates and exchange rates. In open economies with unhindered capital flows, it is only when the real exchange rate moves to levels where it is widely expected to appreciate or depreciate that domestic real interest rates can temporarily move away from their international counterparts.

Furthermore, what we understand much more clearly these days is that movements in the real exchange rate are a major part of the process whereby an economy returns to a sustainable growth path after being hit by a shock. For example, it is well known that a drop in world commodity prices reduces the real equilibrium value of the Canadian dollar. If this is brought about by currency depreciation, the overall domestic price level need not deviate from its target path. In contrast, with a fixed exchange rate, domestic prices would have to fall below that path, and perhaps fall absolutely, to bring about the required decline in the real exchange rate. It

is clear that real exchange rate adjustment works much more smoothly when the nominal exchange rate can adjust. However, for the benefits of exchange rate flexibility to be realized, expectations about nominal exchange rates must be anchored by a monetary policy that is focused on maintaining low and stable inflation over the medium term.

#### **4. Increased confidence in the resilience and efficiency of markets**

It would have been unthinkable in the 1960s to have suggested that the central bank's influence over interest rates was, in and of itself, enough to enable it to keep the rate of inflation low and stable. The view at the time was that there were narrow bounds on how far interest rates could be moved, and that these severely limited what the central bank could accomplish by varying them. As a result, moral suasion to affect bank lending policies or direct controls were seen as important additional instruments for central banks.

A key reason for the change in attitude today is an increased confidence in markets. Certainly, at central banks, we are more confident than we were in the 1960s of the ability of financial markets to absorb changes in interest rates. At the same time, we have accumulated strong evidence to support the view that market mechanisms transmit monetary policy actions effectively.

In the 1960s the Porter Commission was ahead of the Bank, and of conventional wisdom, in this. It envisaged a monetary system that in key respects would function much as it does today -- driven by market forces, flexible, and frequently undergoing rapid change. In its recommendations for reform, the Commission was looking forward to a world in which monetary policy would be increasingly reliant for its effectiveness on appropriate movements in financial market prices.

In line with this view, the Porter Report maintained that institutions and markets were well able to withstand substantial shocks and warned against letting the conduct of monetary policy be excessively influenced by an undue concern for the stability of asset values. It saw that the aversion to significant interest rate movements expressed at the time by the Bank of Canada put at risk its ability to achieve its macroeconomic objectives. In one of its more colourful phrases, the Report warned that "the authorities must not be restrained by excessive tenderness."<sup>21</sup>

However, the present confidence in markets is not just a question of philosophy. Since the 1960s, a variety of legislative and structural changes have made the financial sector still more resilient and flexible. This has made the transmission of monetary policy more efficient and

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21 Porter Commission Report, pp.477-78.

has eliminated residual concerns about the inability of the markets to cope with the effects of central bank actions.

#### **D. CONCLUDING REMARKS**

Even though the Porter Commission had some remarkable insights, there is no doubt that there has been a major change in views since the 1960s with respect to the objective of monetary policy and the mechanisms through which policy works. Two factors stand out in trying to understand the change. The first is the simple accumulation of experience that has exposed some of the shortcomings in earlier thinking about macroeconomic policy. The second is the advances in the analytic framework available to policy-makers to help them analyze the workings of the economy and of monetary policy. These are not independent factors, of course, since economic analysis does change in response to experience. In this case, it was the inability of the previous framework to provide a satisfactory explanation of the developments in the second half of the 1960s and the 1970s that led to changes in the framework for analyzing the macroeconomy.

Experience of good and bad outcomes has thus played a major role in the development of views about monetary policy. The theory dominating the views of Tony Hampson and his colleagues was developed in response to the Great Depression of the 1930s. However, the views of my generation of central bankers have been coloured by the great inflation that marked our professional years. This brought back to the fore the fundamental truth about inflation being a monetary phenomenon that had become temporarily obscured in the 1950s and 1960s.

I want to make sure, however, that I do not leave you with the impression that views on monetary policy are mere creatures of circumstance. Our belief in the objective of price stability has a more solid foundation than that. A vast range of historical evidence, as well as a large body of economic theory has long supported this objective as a necessary factor for good performance with respect to output, employment, and growth.

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I would like to end this lecture by drawing attention to the area in which central banking has probably changed most dramatically quite recently. This is the move, particularly during the 1990s, towards much greater transparency and public accountability in monetary policy

and in the operations of central banks generally. Here again, the Commission was insightful but did not make strong recommendations for greater transparency.<sup>22</sup>

Since 1991, the use of explicit low-inflation targets as the objective of monetary policy has been the most prominent aspect in Canada of this broader development. We now believe that our actions are likely to be more effective and more credible to the extent that they are more clearly understood and more predictable. Therefore, today we provide the public with large amounts of data and commentary on monetary policy, in our regular publications, on the internet, and in response to specific requests. We also try to give information on the outlook for the economy and monetary policy in our *Monetary Policy Reports*, in speeches by Bank of Canada officials, and in the extensive informal contacts of our regional offices across the country. In our Technical Reports and Working Papers and annual economics conferences, the Bank makes its latest research available in a timely fashion. This is a two-way street, by the way, since feedback and criticism is essential to good research.

There has been a similar move to openness with respect to the process of policy implementation. Since 1994, the Bank has announced its operating band for the overnight interest rate, which is now tied to the Bank Rate. And since 1996, press releases providing an explanation of the Bank's actions have accompanied each change in the Bank Rate.<sup>23</sup>

Much of this is quite a break from the past, since traditionally central banks liked to retain a strong element of mystery about their conduct of policy and at times liked to have the capacity to surprise the market with shifts in the supply of reserves to move the overnight rate.

Public opinion has been an underlying driving force in this movement towards transparency. People expect much more than they used to with respect to the accountability of public institutions. The great expansion in higher education over the past 40 years, and with it the rise in sophistication about financial and economic matters, means that the public is more apt to raise questions about economic policies. The amount and the quality of the information that we provide has had to keep in step.

Also, the great inflation, which has had a lasting effect on perceptions about the value of money, has led to a heightened interest in the conduct of monetary policy. Expectations are not held as firmly as they were in the 1950s and early 1960s. People have had to be convinced in recent years that price stability is a credible objective. They still do not take the present low

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22 "Mystery leads to misinformation, and monetary policy needs informed public opinion to function effectively and acceptably. As the Governor pointed out, much of this information must be backward-looking, but we believe it need not all be." Porter Commission Report, p.555.

23 For a detailed discussion of the movement to greater transparency, see Thiessen (1995).

inflation completely for granted. Each action of the central bank is liable to be scrutinized for any sign of backsliding. For example, the volatility of bond and foreign exchange markets, which persists despite almost a decade of low inflation, can partly be attributed to lingering uncertainties with respect to future price movements. At the Bank of Canada, we have taken the position that these concerns are best confronted by making clear statements about the objective and strategy of monetary policy, by releasing our economic analysis to outside examination, and by publishing all relevant data.

It is possible that some future governor of the Bank of Canada will want to give a lecture looking back at monetary policy in the 1990s. I believe that this future governor will be particularly impressed by the influence that demands for transparency and public accountability have had in shifting the culture of central banks and their approach to monetary policy in the 1990s.

### References - 1999 Hampson Lecture

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