
The Donald Gow Lecture
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The Interaction Between Monetary and Fiscal Policies

Thank you for the invitation to give the Gow Lecture for 2002. Donald Gow had a great interest in public administration and in budgetary reform in the federal government.¹ He was one in a long line of Queen's professors who have focused on various budgetary matters at the federal level.

The late Doug Purvis was another.² In 1998, when I was asked to give the Doug Purvis Memorial Lecture, I chose to talk about my "Reflections on the Role of Fiscal Policy."³ In that lecture, I discussed the past practice of fiscal policy in Canada and drew from that experience some lessons that might guide its future practice. In that context, I touched briefly on the interaction between fiscal policy and monetary policy.

Today, after some experience on the monetary side of the fence, I would like to reflect more fully on this important interaction. In doing so, I will be restricting myself to the macroeconomic aspects of fiscal policy. Thus, I will be dealing with deficits and debts—both in terms of fiscal planning and in terms of the responses of fiscal policy to economic surprises. These are the key aspects of fiscal policy in terms of its interaction with monetary policy.

To begin, I find it helpful to look back to May 1970 when Canada returned to a floating exchange rate. At that time, there was no formal anchor for monetary policy and therefore no anchor for nominal economic variables. Nor had much thought been given to a medium- to long-run goal for fiscal policy. Both policies had a rather short-run focus, and economic fine-tuning was still in its heyday.

Unfortunately, the early 1970s soon brought a number of surprises that were damaging to an economy with no policy anchors—world energy prices skyrocketed, the underlying trend rate of productivity growth slowed, and revisions to the employment insurance system increased the

1. Gow (1973).

2. See, for example, Purvis (1985), Bruce and Purvis (1986), Purvis and Smith (1986).

3. Dodge (1998).

longer-run equilibrium unemployment rate in the economy. By 1975, inflation had climbed above 10 per cent, and the general government budget had moved into a deficit of 3.5 per cent of GDP.

In response to this rise in inflation, two policies were put in place. The Bank of Canada adopted targets for the growth of the narrow monetary aggregate M1, and the federal government established an Anti-Inflation Program in the autumn of 1975, which was in force until 1978. Although the controls aspect of this program was aimed at facilitating the transition to lower inflation, the fiscal and monetary policies under the macroeconomic aspect of this program were insufficiently restrictive to achieve permanently lower inflation.

Overall, through 1982, M1 monetary targeting was not as effective in bringing down inflation as had been anticipated. The links between money growth and inflation over a policy-relevant horizon were not as tight as had been expected. The high interest rate elasticity of money demand meant that interest rates did not have to be raised by much to slow down money growth.⁴ And, at times, this problem was compounded by unexpected downward shifts in the desire to hold M1 balances. Thus, although the targets for the monetary aggregate were achieved, spending and inflation did not decline as much as had been hoped.

In the 1970s, fiscal policy was concentrating on cushioning shocks in a discretionary manner and on expanding the amount of public goods and services. There was little realization that it was going off track when examined from a medium- to long-term perspective. This was partly because real interest rates were very low (and, indeed, often negative) throughout the decade. This situation could not last forever, and it did not. Once real interest rates returned to higher levels and the economy continued to experience lower trend growth rates, the vicious circle of debt dynamics set in.

Overall, one can view the period since 1970 as one in which the authorities struggled to establish appropriate medium-term anchors for both monetary and fiscal policies. During this time, they learned about the appropriate interaction between those two policies in the context of economic stabilization and growth under a flexible exchange rate regime.

In the rest of this lecture, I will deal with four interrelated topics: the appropriate goals for fiscal and monetary policy, building policy credibility, the appropriate stabilization role for the two policies, and policy co-operation. I will conclude with some thoughts about the future.

The Appropriate Goals and Focus for Monetary and Fiscal Policies

I will start with the topic of the appropriate goals for monetary and fiscal policies.

In the 1970s, it was not only Canada, but most industrialized countries, that went off track in terms of their economic performance and budgetary outcomes. The global economic surprises that occurred during the course of the decade were partly to blame. But, more fundamentally, the problem was that central banks and governments had not yet established an appropriate macroeconomic framework for dealing with such surprises. This framework would have to

4. See Thiessen (1983).

operate in a world of floating exchange rates with high capital mobility and a high degree of substitutability between assets denominated in domestic currency and assets denominated in foreign currencies. Although Canada had been on a flexible exchange rate regime for most of the 1950s and into the early 1960s, it had operated on a fixed-rate regime from 1962 to 1970. Most other industrialized countries did not float their currencies until 1973 or later. And, although Canadian capital markets had historically been closely linked with those in the United States, the same could not be said for most other countries.

Much of the academic literature around 1970 was focused on short-run stabilization, short-run changes in policy instruments, and static analysis. Not much attention was paid to changes in the stocks of assets and liabilities, which influence economic behaviour in the medium to longer run. Even though the large econometric models that were being constructed at that time did have dynamic behaviour and some limited role for asset accumulation, they were not typically used to look at alternative policy rules or regimes. Apart from the literature linked to the monetary aggregates, little had been written that dealt with a coherent medium-term policy. And there was also little or no concentration on the long-run effects of fiscal policy. Given all this, it was not surprising that we struggled to come to grips with our problems here in Canada.

Short-run static analysis

There was still an active debate in the early 1970s as to whether there was a long-run trade-off between inflation and unemployment.⁵ Those who believed that there was, were more willing to engage in a high level of fine-tuning the real economy. Models were used to mimic fine-tuning exercises, with interest rates or fiscal policy levers changed to get back quickly to desired output levels. Empirical models of the Canadian economy under flexible exchange rates were hampered by the fact that the experience was all from the 1950s—a time when the economic structure was much different from that of the 1970s and the exchange rate did not fluctuate very much.⁶ Not surprisingly, it proved difficult to develop an equation that explained exchange rate movements very well.

Fortunately, there were some extremely powerful theoretical models of the short-run effects of monetary and fiscal policy, developed in the early 1960s by Robert Mundell and Marcus Fleming.⁷ The sharpest prediction of the early models occurred under the assumption of perfect substitutability between domestic and foreign assets and a fixed domestic price level. In a flexible exchange rate regime, only monetary policy (and not fiscal policy) would affect the level of output (“internal balance”). Expansionary fiscal policy would, however, lead to a sizable deterioration of the current account of the balance of payments. Conversely, in a fixed exchange rate regime, only fiscal policy (and not monetary policy) would affect the level of output, while monetary policy would affect the balance of payments through its implications for changes in official reserves.

5. Friedman (1968) and Phelps (1968) argued that there was no such trade-off, while Solow (1969) had an opposing view.

6. Caves and Reuber (1971).

7. Mundell (1961, 1962, 1963) and Fleming (1962).

Mundell had used quite restrictive assumptions regarding prices and expectations of exchange rate changes and inflation in his simple models. It is important to note, however, that relaxing these assumptions, while maintaining a hypothesis of perfect asset substitutability, still leads to the conclusion that monetary policy has no effect on output under a credible fixed exchange rate regime (because it must be used to defend the fixed rate and therefore is endogenously determined). Moreover, with perfect asset substitutability, monetary policy has a more powerful effect on output—and fiscal policy has a less powerful effect on output—under a flexible exchange rate regime than a fixed exchange rate regime.⁸ This comes about because the domestic effects of monetary policy are augmented by its impact on the exchange rate, whereas the domestic effects of fiscal policy are reduced by exchange rate movements.

Even though Mundell’s models dated from the early 1960s, it is not clear that policy-makers had taken their implications into account for the change in exchange rate regime when Canada floated in 1970.⁹

Medium-run analysis

Central banks, including the Bank of Canada, had long favoured a goal of price stability. And the Economic Council of Canada, founded in the mid-1960s, favoured “reasonable price stability” as one of its preferred policy objectives (but it did believe in “inflation-unemployment trade-off zones”).¹⁰ But by 1970, the only anchors for obtaining price stability or good inflation performance that were given prominence in the literature were monetary aggregates. The 1960s and 1970s saw a battle between the “monetarists,” who favoured low and stable growth of a monetary aggregate, and the “Keynesians,” who believed in fine-tuning and (in some cases) considered monetary policy to be ineffective.

On the fiscal policy side, there was little analysis of medium- to long-run effects. In large part, this was because the federal debt-to-GDP ratio had been on a long downward trend since the end of the Second World War to 1974. It was only after this ratio had increased for a number of years that it became obvious that there was a problem with sustainability.

As the Canadian economy moved into the 1980s, taking with it a legacy of problems from the 1970s, attention turned more and more to the importance of policies that would be sustainable over the long run, as well as to what policies should be expected to accomplish over the medium to long run under a floating exchange rate regime.

Evolution of thought about monetary policy in the 1980s and early 1990s

In 1982, and just before the Bank dropped its M1 target, Governor Gerald Bouey gave the Per Jacobsson Lecture. In that lecture, he discussed the “search for a better analytic framework

8. Marston (1985).

9. Thiessen (2000–2001) notes, “Closed-economy concepts continued to dominate most national policy discussions. While Mundell’s results were slowly filtering through the academic community, they had not yet reached the ranks of practising economists.” Indeed, the Bank of Canada *Annual Report* for 1970 makes only a passing reference to the decision to float the Canadian dollar.

10. Economic Council of Canada *Third Annual Review* (1966).

within which monetary policy choices are made.”¹¹ Importantly, he noted that the Bank had found itself “taking a view of policy that is more forward-looking than one based solely on monetary targets on the grounds that it is wise to respond immediately to any potentially inflationary shocks rather than to wait until such shocks are reflected in higher inflation and higher money growth.”¹² In the 1982–86 period, the Bank looked for a target—monetary aggregate or other measure—that would provide

- a nominal anchor as a medium-term guide to policy (that is, a target that would prevent cumulative policy error)
- a place to stand that would be used to communicate policy to the public, and
- an anchor that could potentially affect the formation of inflation expectations.¹³

Research failed to turn up a monetary aggregate that could fulfill these conditions. But to aid policy-making, Bank staff set out a desired path for inflation that would lead to price stability in the context of internal economic projections.

In 1988, in his Hanson Lecture, Governor John Crow¹⁴ laid out the case for price stability as the best way that monetary policy could contribute to raising living standards. He also made it clear that, in his view, 4 per cent inflation was not price stability.

It is important to review the case for low and stable inflation that the Bank has been making since 1988. The first key element in this case is that there is no long-run trade-off between inflation and output—a belief fully borne out by events. Moreover, low and stable inflation would be expected to actually increase output or economic welfare by

- reducing uncertainty about the future (and thus aiding planning and investment)
- reducing the costs of having to cope with inflation
- increasing equity and fairness
- leading to a more stable economy¹⁵

The government was also sensitive to the problems caused by volatile inflation and by inflation expectations that were not solidly anchored.¹⁶ Thus, by late 1990, there was a growing shared desire to have an explicit target that would provide a better anchor for inflation expectations.

The fact that the credibility of monetary policy can potentially be frustrated by inappropriate fiscal policy—a theme to which I will return later—is one of the reasons that it is essential for both the government and the central bank to sign on to an agreement.

11. Bouey (1982).

12. Bouey (1982, p. 7). Although the specific example given by Bouey related to exchange rate depreciation, the point appears to have been more general. This interpretation is supported by the phrase “we have relied a good deal on other information and analysis.”

13. Duguay and Longworth (1998).

14. Crow (1988).

15. Bank of Canada (1991), Selody (1990), O’Reilly (1998).

16. An explicit target for inflation is also helpful for government planning.

In fact, an agreement was reached on specific inflation-reduction targets and was announced in a joint press release at the time of the February 1991 budget.¹⁷ You may recall that a series of targets was announced in that agreement, aimed at bringing the 12-month CPI inflation rate down to 2 per cent (plus or minus 1 per cent) by December 1995. The target has subsequently been extended three times, retaining the 2 per cent target midpoint.¹⁸

For ten years now, inflation has been low and stable, and households and businesses have increasingly come to believe in its predictability. The increased transparency of the Bank's conduct of policy and its enhanced communications strategy have played key roles in this success.

An understanding of the appropriate medium- to long-run goals for monetary policy, both conceptually and quantitatively, was thus solidly in place in the early 1990s. Moreover, the quantitative targets were achieved in short order. It took longer, however, for medium- to long-run goals to be established and achieved on the fiscal side.

The evolution of thought about fiscal policy in the 1980s and early 1990s

While central bankers and monetary theorists had always kept at least one eye on price stability or low inflation, the fiscal authorities in industrialized countries had typically not had to deal with rising debt-to-GDP ratios during peacetime. Therefore, it took a while before there was any recognition that there was a longer-run problem on the fiscal side. The recognition lag was exacerbated by an unexpected decline in the trend rate of productivity growth, now dated at around 1973, and a rise in the actual real interest rate to some longer-run equilibrium that occurred sometime in the early 1980s.

In my Purvis Lecture, I noted that in the 1971–83 period, “Expansionary fiscal policy was used . . . as a substitute for appropriate structural policies.” This was particularly true with regard to the response to the two oil-price shocks. Thus, the contribution that fiscal policy could make to savings and longer-run growth was largely neglected in discussions during that period.

During the 1983–85 period, academic economists began to discuss the sustainability of public deficits and the appropriate role for fiscal policy. (Queen's professors Neil Bruce and Doug Purvis were key contributors to this discussion.)¹⁹

The sustainability problem really comes down to two things. First, the stock of government debt cannot grow faster than the economy indefinitely. Eventually, fiscal policy must be adjusted. Second, because of this, when the rate of interest on government debt exceeds the growth of the economy, a rise in the government deficit relative to the size of the economy today means that there must be a rise in tax rates or a cut in the ratio of government program expenditures to GDP sometime in the future.²⁰ That is, there are important transfers among generations.

17. Bank of Canada (1991).

18. Most recently, the agreement was extended to the end of 2006. See Bank of Canada (2001).

19. Bruce and Purvis (1983, 1986). Fiscal policy was also a hot topic in the United States at this time, given the Reagan tax cuts, the interest in supply-side economics, and the rising current account deficit.

20. This second statement assumes that the starting point is one in which the ratio of government debt to GDP is constant (or growing).

Economists were also becoming more convinced that deficits and debts have significant real effects on the economy. These effects occur because, in practice, changes in private sector savings do not fully offset changes in government saving.²¹ That is, reduced government saving leads to some decline in overall national saving.

In a small open economy such as Canada's, when the international substitutability of assets is very high, the most important effect of changes in government debt will be on foreign indebtedness. It works this way. A decrease in the deficit lowers domestic expenditures relative to domestic production and thus increases the current account balance. There is a corresponding decrease in net capital inflows and thus in foreign indebtedness. The decline in foreign indebtedness will lower the interest and dividend payments flowing abroad and thus raise domestic net income relative to gross domestic product.

To the extent that domestic interest rates decline when the domestic government debt-to-GDP ratio falls, a decrease in government debt will tend to increase business investment and the capital stock. This is the second major effect of a decline in deficits and debts on the Canadian economy.

Combining these two major effects, one can say that the appropriate longer-term goal for fiscal policy should be increased savings, investment, and output through an appropriately low debt-to-GDP ratio.²²

A decline in the debt-to-GDP ratio can have additional favourable effects. First, to the extent that a lower debt-service burden leads to lower taxes, rather than higher expenditures, it leads to a reduction in the usual distortionary effects of taxes. Second, to the extent that it reduces the effect of a given change in interest rates on the government's balance, it makes fiscal planning much easier. Third, in situations of very high (and perhaps rising) debt-to-GDP ratios, markets may build a premium into interest rates to cover the perceived probability that debt will be monetized. Lower debt ratios reverse this effect. Finally, when the economy weakens, governments facing high debt ratios may feel that they have to override the automatic stabilizers to avoid making a bad situation even worse—as often had to be done in the 1990s. This effect will tend to disappear at lower debt ratios. I will come back to the last two points later in this lecture.

In the mid-1980s, the Canadian federal government developed a plan to gradually deal with the rising debt-to-GDP ratio. But little progress was made, and thus more significant measures had to be taken in 1993 and 1994. It was not until the budget of February 1995, however, that the cumulative effects of all the measures taken were perceived to have put fiscal policy back on a sustainable track.

Since that budget, the debt-to-GDP ratio at the federal level has fallen from 70 per cent to 50 per cent,²³ and the provinces have, by and large, also put their fiscal houses in order. Largely as

21. Bruce and Purvis (1986) list six reasons why one would not expect “Ricardian equivalence” in which the private sector would fully offset the effect on national saving of the government's actions.

22. Economists have struggled with defining an optimum debt-to-GDP ratio, partly because of the difficulty of comparing welfare across generations.

23. These data are presented on a public accounts basis. On a national accounts basis, the comparable figures are within one percentage point.

a result of these fiscal moves, the ratio of Canada's international indebtedness to GDP has been halved from 40 per cent to around 20 per cent.

Differentials in nominal long-term bond rates between Canada and the United States have come down from over 2 per cent in 1990 to between 1/4 and 1/2 per cent over the past year. Canadian long-term interest rates in real terms have also declined. With lower government financing needs, Canadian corporations could more easily issue debt in Canada. All these changes have favoured increased business fixed investment in Canada, which rose from 10.3 per cent of GDP in 1992–95 to 12.4 per cent of GDP in 1996–2001.

As for future objectives, it is plain that the federal government and many provinces clearly intend to pursue further significant declines in their debt-to-GDP ratios over the medium term. The federal government, for example, has a framework of targets and contingency reserves in each annual budget that reduces to low levels the probability of running a deficit. The usual nominal growth in the economy will thus reduce the debt-to-GDP ratio. While the objective in the fiscal area may not be as specific as in the monetary area, it is the most definitive and operational medium- to long-term objective that there has been for Canadian fiscal policy in recent memory.

What medium- to long-term objectives accomplish

Whether one is thinking about monetary policy or fiscal policy, there are two important results when medium- to long-term objectives are established and achieved. First, a sustainable situation is created over time. Policy instruments are forced to adjust to surprises—particularly permanent surprises—because there is a longer-run anchor. Second, in choosing long-term objectives, appropriate consideration is given to the type of policy framework that will raise our living standards over the longer run. The longer-run outcome should be more than the result of a series of *ad hoc* short-run decisions aimed at economic fine-tuning.

As a by-product, the economy gets the appropriate “assignment” of policies: long-run “internal balance”—that is, low and stable inflation—is assigned to monetary policy and long-run “external balance”—wealth accumulation coming, at least partly, from an increase in net foreign assets—is assigned to fiscal policy. This should be taken as only a rough parallel to Mundell's results for short-run policy under flexible exchange rates with perfect international asset substitutability. It misses the richness of the dynamic process through which both the capital stock and the stock of net foreign assets can be affected, as discussed earlier.²⁴

The Credibility of Monetary and Fiscal Policies

I would now like to turn to the credibility of monetary and fiscal policies.

After establishing appropriate medium- to long-term objectives for monetary and fiscal policies, it is important to achieve them. This is not only because in a democratic system it is

24. The assignment is a rough parallel because, in a flexible exchange rate regime, monetary policy can affect inflation in both the short to medium run and in the long run. And fiscal policy can affect the trade balance in the short run, which affects the path of international indebtedness over the longer run. Thus, both in the short and long run, fiscal policy is affecting a measure of the external balance.

important to be accountable, but also because there are gains to be reaped from having credible policies.

The short- to medium-run credibility of monetary policy was established quite quickly, as inflation fell to 2 per cent in early 1992, more than three years before the inflation-reduction target itself was slated to be 2 per cent. By early 1993, the inflation expectations of private sector forecasters and businesses for short-run horizons had fallen in line with the midpoint of the target range. It took a while for these same inflation expectations at a 6- to 10-year horizon to fall to 2 per cent. This occurred by about early 1996. And at a 30-year horizon, as measured by the spread between the yields on conventional and Real Return bonds, expectations remained above 3 per cent until late 1996, before falling quite sharply to around 2 per cent by late 1997 and staying there.²⁵

The significant deviation of long-term expectations from the target was partly a result of concerns about pressures that could arise because of a fiscal situation that was still not perceived to be fully in control. That is, financial markets were concerned with “fiscal dominance” over monetary policy in that period.

There are a couple of strands in the theoretical literature on the interaction between fiscal and monetary policy, which essentially assert that fiscal policy will eventually dominate in determining long-run monetary policy.²⁶ Both these strands, however, require that the fiscal authorities will either eventually require the monetary authorities to monetize the debt or convince the financial markets that, ultimately, the fiscal authority will have the upper hand. These appear to be extreme assumptions because they depend on the view that fiscal authorities are unconcerned with any inflationary consequence of their actions and ignore the many legal and institutional separations that exist between fiscal and monetary authorities. Nonetheless, market concerns about the potential for fiscal dominance can potentially have significant effects in financial markets, particularly on longer-term bond rates. These concerns were definitely at play in Canadian financial markets in the early and mid-1990s.

As I noted earlier, it was only in February 1995 that the Government of Canada was perceived to have established an objective for fiscal policy that was specific enough to provide a basis for achieving a reduction in deficits to zero and setting the economy on a path that would reduce the debt-to-GDP ratio. This objective was regarded as a foundation on which to build credibility for fiscal policy.

As in the case of monetary policy, credibility did not come immediately. It had to be earned. Considerable credibility was gained, however, over the 2- to 2 1/2-year period after the

25. Because of premiums for inflation uncertainty and the limited number of participants in the Real Return bond market, the bond yield differential cannot be taken as an exact measure of inflation expectations. See Côté et al. (1996).

26. These are the “unpleasant monetarist arithmetic” strand associated with Sargent and Wallace (1981), and the “fiscal theory of the price level” strand associated with Woodford (2001) and many others. McCallum (1999) provides an overview and critique of both strands, while Buiter (1999, 2002) claims to demolish the theoretical basis of the second strand.

1995 budget. The deficit-reduction milestones were more than achieved and successive budgets reinforced the intention to stay the course.

It is important to note the supporting role that the credibility of monetary policy played in this process. In part, because the short- to medium-run credibility of monetary policy was high, short- to medium-term interest rates on government debt had fallen significantly. Even long-term rates were much lower than in the early 1990s. These lower interest rates reduced the real cost of the existing government debt as it was rolled over.

Thus, there was an interaction between the credibility of fiscal and monetary policies. The joint credibility of the two policies led to lower rates on long-term bonds as risk premiums related to the debt-to-GDP ratio²⁷ and to inflation uncertainty fell. The spreads between Canadian and U.S. long-term bond rates even became negative for most of the period from mid-1997 to late 2000.

Canada's experience in the 1990s thus strongly suggests that there are important spillovers in credibility between fiscal and monetary policies. Moreover, it is easier for everyone—policy-makers and the private sector alike—when the frameworks for both monetary and fiscal policy are clear and understandable.

In discussing the establishment of credibility, I have so far put the emphasis on achieving the established objectives. This is certainly the most important factor. But communication has also played a key role—communication about the quantitative objectives and about the framework of the mechanisms that enable us to attain those objectives. Communication has been equally important for both monetary policy and fiscal policy.

Policy credibility has led to important gains for the Canadian economy.

The joint credibility of the two policies has lowered long-term interest rates in real terms, favouring business investment and, therefore, economic growth.

The credibility of monetary policy has apparently led to a change in the nature of the inflation process itself. In the short run, inflation does not seem to respond as strongly to measures of excess demand and supply.^{28, 29} As well, because inflation expectations have been well anchored near the 2 per cent target midpoint, the labour market today operates much more efficiently than it did during the high-inflation years. Union contracts have lengthened considerably and wages are rarely indexed to the cost of living. Moreover, there are no immediate reactions of wages to big changes in oil prices. Thus, relative wages are better anchored and tend to better reflect demand and supply conditions in particular markets. I regard all this as an extraordinarily important contribution, since I spent two years with the Anti-Inflation Board struggling to settle down a labour market that had become terribly distorted by high inflation in the early 1970s. Overall, credibility has stabilized the inflation process and, therefore, inflation

27. Fillion (1996).

28. Kichian (2001), and Beaudry and Doyle (2001).

29. In addition, inflation does not seem to be reacting as strongly to changes in relative prices (Bank of Canada 2000).

itself. Moreover, effective monetary policy seems to have reduced the variability in the real economy as well.³⁰

The credibility of fiscal policy has enhanced investment planning by the business sector since it has drastically reduced the risk of future increases in taxes stemming from a need to deal with fiscal problems.

Thus, credibility has led to a more stable Canadian economy and one that is better positioned for future economic growth.

Stabilization Policy

There is a connection between credibility and my next topic—stabilization policy. The achievement of policy credibility has meant that the automatic stabilizers in the economy—those features of macro policy that tend to stabilize output—can be allowed to work fully.

When the monetary and fiscal authorities are attempting to establish credibility, there is a natural inclination—and sometimes a necessity—to err on the side of overachieving the targets. This means that explicit actions may have to be taken to prevent the automatic stabilizers from working, as was the case with fiscal policy in the 1990s. Moreover, the lack of a credible fiscal policy was one of the factors that seemed to hinder the Bank’s ability to achieve the monetary conditions that it desired at certain points in the early- to mid-1990s.³¹ Thus, the stabilizing properties of monetary policy were not able to fully work at that time. Now that the credibility of both policies is very high, both the federal government and the Bank can allow the automatic stabilizers to do their job.³²

Monetary policy and stabilization

In the case of monetary policy, interest rates actually have to be changed to get the stabilizing result. Nonetheless, although judgments are made based on the special factors at play and the balance of inflation risks going forward, the changes in rates can be considered as more or less automatic in response to surprises in demand. Our 2 per cent inflation target limits our discretion. Changes in interest rates independent of those in the United States are made possible by our flexible exchange rate regime.

Let me explain how monetary policy focused on an inflation target plays a stabilizing role when there are demand surprises. Suppose that the economy is operating at its production potential, and inflation is at the 2 per cent target midpoint. A downward shift in demand—coming from, say, a tightening in fiscal policy—would create excess supply in the economy, putting downward pressure on inflation. To bring inflation back to 2 per cent over an 18- to 24-month horizon, the Bank of Canada would lower its target for the overnight interest rate. This action, through its effect on market interest rates and the exchange rate, would increase the level of output

30. I dealt with this theme in Dodge (2002). See also Longworth (2002).

31. Freedman and Macklem (1998) and Freedman (2001).

32. Thiessen (1996) noted that “. . . the more credible monetary and fiscal policies are, the more reinforcing, or mutually supportive, they can be.”

in the economy towards its production potential. Inflation would therefore return to target shortly after the excess supply disappeared from the economy. Because the inflation-targeting framework operates symmetrically, the same process would occur in reverse in response to an upward shift in demand.³³

Supply shocks—which take the form of higher (or lower) inflation than expected for a given level of demand—are always more difficult for policy-makers to deal with than demand surprises. Nevertheless, the Bank’s framework for inflation-targeting allows temporary supply shocks to be largely ignored, so long as they do not feed into inflation expectations. The credibility that has been established means that they no longer do so. Consider price surprises coming from the most volatile components of the consumer price index—components such as fruit and vegetables or oil and gas. As our operating guide, we use a measure of core inflation that excludes such components. This gives us, and economic observers, some confidence that we are looking at the underlying trend of inflation. Thus, our interest rate response to price shocks that are perceived to be temporary can be minimal. As a result, there will be little effect on output. In other words, monetary policy does not turn temporary supply shocks into something that is destabilizing for aggregate output.

Fiscal policy and automatic stabilization

On the fiscal side, the automatic stabilizers are tax revenues and employment insurance payouts. When the economy weakens, tax revenues tend to fall, and employment insurance payouts tend to increase. This buffers the effect on personal disposable income of the decline in output and therefore tends to reduce the amplitude of the output shock. If households based their spending decisions on their expected permanent level of income, as opposed to current income, there would be little role for the automatic stabilizers. But the evidence shows that many households, particularly those with lower incomes, cannot borrow freely against future income and therefore are often significantly constrained by their current level of disposable income. Thus, automatic stabilizers on the fiscal side play a significant role.

Some have argued that a significant rise in the propensity to import, which can act as an automatic stabilizer in the economy, has perhaps decreased the importance of the automatic fiscal stabilizers.³⁴ While this is true at the aggregate level, its effect has not been uniform across shocks affecting various final expenditure categories. The greatest increases in the propensity to import have come on the export side, because of the growing importance of two-way trade. Components of domestic expenditure such as housing investment, non-residential construction, and consumption of services, however, still have very low marginal propensities to import.

33. A spinoff of the response of monetary policy to demand shocks is that monetary policy tends to play the role of automatic stabilizer with respect to the federal fiscal balance. That is, when a decline in demand occurs, resulting in lower fiscal revenues, the Bank of Canada will tend to lower interest rates. This will lower the interest expenses of the government and will buffer the decline in the fiscal balance. The converse also holds for a rise in demand. The maturity distribution of the government debt affects the size and speed of these effects.

34. Fortin (1998).

Comparing and contrasting the automatic fiscal and monetary stabilizers

Some of the automatic fiscal stabilizers work almost immediately—for example, the personal income tax deducted by the employer. Others, such as employment insurance payments and social assistance payments, work with a fairly short lag. These types of fiscal stabilizers are very effective in dampening an output cycle. But they do not come close to fully offsetting the change in output. Other elements of the automatic fiscal stabilizers do not take hold until income tax is settled in the spring of each year.

The lags in the effects of monetary policy mean that there is no contemporaneous dampening effect on output. While changes in monetary policy can have some impact in the very short run, the full impact on output is not normally felt for 12 to 18 months. It is largely because of these lags that the Bank aims to bring inflation back on target over an 18- to 24-month horizon.

As I noted earlier, the automatic fiscal stabilizers at the federal level will no longer have to be offset. What difference does that make for monetary policy? The most important factor is that fiscal policy will be more symmetric and predictable.

Discretionary stabilization policy

While the automatic stabilization provided by monetary and fiscal policies is very desirable, the question remains whether there is a role for something further—a role for a discretionary stabilization policy.

In the case of monetary policy, the nature of our response is the more or less automatic one described earlier. As I said earlier, judgment is key to the process. That is particularly true at times of great uncertainty, as existed last autumn. But our clear inflation target means that, in principle, our discretion is limited relative to that of fiscal policy.³⁵

The arguments for and against discretionary fiscal policy as an important element in macroeconomic stabilization in an open economy tend to revolve primarily around lags, and around the effectiveness of short-run fiscal policy relative to monetary policy.

If the timing was close to perfect, fiscal policy measures that lasted for two or three quarters could, in principle, and under ideal circumstances, shorten the time to move output back to its desired level.³⁶ Thus, in principle, discretionary fiscal policy is an important tool. But, as a

35. Some commentators have described inflation-targeting as “constrained discretion,” in the sense that there is a clear objective and a medium-term framework, but no precise rule for varying the policy interest rate (Bernanke et al. 1999). That is, there are many possible paths back to equilibrium. At the Bank, we have decided that the best way to implement inflation-targeting is to have an acceptable trade-off between the variance of inflation around its target and the variance of output around its production potential. Thus, we have chosen an 18- to 24-month horizon for achieving the inflation target. We take into account all the relevant information, but we have no precise rule for setting interest rates.

36. For any shock, there is a recognition lag, a lag in taking a decision about policy changes, a lag in carrying out the policy (changing taxes or expenditures), and the lag in the effect of the policy change on output. The recognition lag of economists working for the fiscal authority is (or could be made to be) no different than that of those working for the monetary authority. In practice, it seems that major discretionary fiscal actions can be taken only once (or at most twice) a year. As well, typically, there are lags of a couple of months before tax schedules can be changed and implemented or before money can be spent. From the time that the policy actually comes into effect, however, the lags in the effect on output are likely somewhat shorter than the lags in the effect of monetary policy on output.

practitioner, I can tell you that the great problem here is that temporary measures are both difficult to start quickly when the need arises and extraordinarily difficult to stop once the need is past.

Thus, as a practical matter, not a philosophical one, there are some severe limitations to the use of discretionary fiscal policy as a stabilizer.³⁷

Policy Co-Operation

Now let me turn to policy co-operation and coordination.

I want to start by emphasizing that the inflation targets are joint targets. They are not just the Bank's targets—they are the targets of the Government of Canada as well.

Put another way, “coordination” came through the joint agreement on inflation targets. With clear agreement on the medium-term policy objectives and an understanding of the policy framework, there is no need for coordination on the setting of interest rates or fiscal policy instruments.

The economic literature on policy coordination tends to be about situations where the fiscal and monetary authorities have one or more of the following: very different views of economic welfare,³⁸ inconsistent policy objectives, policy that is totally discretionary, or a tendency to get involved in game-like behaviour with one another. None of these applies in Canada.

Given the policy framework, when the government changes fiscal policy, it needs to think of how these changes will affect inflation and, consequently, interest rates. Similarly, the Bank needs to consider how changes in fiscal policy will affect demand and inflation, and thus its setting of interest rates. Therefore, it is to the mutual benefit of both parties to co-operate in the sharing of information and analysis as they set their policies.

For example, it is important for the Bank to recognize that government policies can affect the production potential of the economy through their effect on sustainable labour utilization rates and the level of productivity. The Bank needs to consider this information when making its policy decisions.

Co-operation between the Bank and the federal Department of Finance occurs on a number of levels. I have frequent discussions with the Minister and Deputy Minister. My colleagues on the Governing Council stay in touch with the associate and assistant deputy ministers who are their counterparts. And there are meetings at the staff level to share, for example, information from economic forecasts, surveys, and contacts with various groups and organizations. One of the key reasons for our regular discussions is so that each institution understands the details of the framework within which the other organization is pursuing its objectives and how this framework applies to current economic surprises.

37. This is also the view of Cecchetti (2002) and Taylor (2000). For an opposing view, see Seidman (2001).

38. That is, their “loss functions” are very different.

With our inflation-targeting regime, provincial fiscal authorities—especially those in large provinces—also know that the Bank will react to the effect that their policies could have on the course of future inflation. At the same time, we at the Bank are obligated to keep the provincial authorities informed of our views on future inflation.

Some of you may be surprised that I have not said anything about the appropriate mix of monetary and fiscal policies when talking about coordination and co-operation. As you might remember, policy mix was a hot topic in Canada in the late 1980s. That was before we had explicit frameworks for our monetary and fiscal policies. With these frameworks in place, the whole issue of policy mix becomes moot. In particular, interest rates are not adjusted to deal with problems of deficits and debts, and taxes and fiscal spending are not adjusted primarily to achieve an inflation objective.

This does not mean, however, that there are no implications for financial and policy variables as a prolonged fiscal tightening puts the economy on a course for a new longer-run equilibrium with a lower debt-to-GDP ratio. All else being equal, the fiscal tightening will initially lead to lower real interest rates and a temporary real depreciation of the Canadian dollar, so that interest-rate-sensitive components of GDP and net foreign demand can make up for the loss in domestic demand stemming from the tightening. But as Canadian net foreign assets rise, the wealth effect on consumption will become large enough to support demand and to allow the Canadian dollar to rise to a permanently higher real value than prior to the change in fiscal policy.³⁹

Related to what I have said about the need for co-operation rather than coordination of policy variables domestically, I would argue that, if each major industrial country had clear medium-term objectives for monetary and fiscal policies, along with transparent frameworks for achieving those objectives, there would be no need or desire to have any strong form of international coordination.⁴⁰ Again, it would be co-operation in terms of information-sharing that would be important.

Overall, I believe that the clear longer-term objectives and frameworks of monetary and fiscal policies have created an environment where co-operation in the form of sharing information and analysis is most effective.

39. As well, the decline in government indebtedness will mean that the ratio of government interest payments to the size of the economy will come down. This will allow a decline in the ratio of taxes to GDP or a rise in the ratio of government program expenditures to GDP. (Moreover, if the ratio of debt-to-GDP is to be stabilized at a positive level, the government will move from running a small fiscal surplus, during the transition from a high debt ratio, to running a small deficit. This will allow a further decline in the tax ratio or rise in the non-interest expenditure ratio.)

40. Obstfeld and Rogoff (2001) and Benigno and Benigno (2002) discuss conditions under which there would be little or no gain from international coordination because monetary policies aimed solely at domestic objectives can do all that is necessary to get very close to the point that is the optimum for the world economy.

Concluding Thoughts

Just over 25 years ago, in the absence of appropriate anchors, Canadian monetary and fiscal policies both went badly off course. It then took 15 to 20 years to establish the appropriate focus for those policies and to bring them back on course.

Now there are clear monetary and fiscal objectives and clear accountability for meeting those objectives.

The transparent framework that has been established will be extremely helpful in meeting the challenges that the future is sure to bring. Two of these challenges are already apparent—a possible increase in the trend rate of productivity growth and a slowdown in population growth combined with an aging population. Both these factors create uncertainty about the growth and level of production potential of our economy.

Fortunately, this broad type of uncertainty is not new, either for the Bank of Canada or for the fiscal authorities. The medium-term frameworks that have been set up for monetary and fiscal policies mean that the required adjustments in the economy will take place against a relatively stable background. That is to say, the Bank will react so that inflation does not stray too far from 2 per cent, and the government will react so that the debt-to-GDP ratio remains on a downward trend.

We have come a long way in the past 25 years in understanding the relationship between monetary and fiscal policies and what those policies can best accomplish. As we go forward, this will help to underpin strong economic growth and a more stable Canadian economy.

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