1 Digging a Hole or Laying the Foundation? The Objectives of Macroeconomic Policy in Canada

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Despite widespread disagreement on the wisdom of current macroeconomic policy in Canada, there is broad agreement on the analysis of many important aspects of the real economy.

1 The output gap in Canada today is huge. Although precise estimates of the gap between potential output and actual output depend on one's precise estimate of "full employment," it is reasonable to think of the output gap in Canada in January 1995 as being of the order of 8 to 10 percent of Gross Domestic Product (GDP) – i.e., $60 billion to $70 billion.[1]
2 Since the rate of growth of output is now only slightly greater than the rate of growth of potential output (i.e., trend labour-force growth plus trend growth in productivity), the output gap is decreasing very slowly.
3 With current policies, there is little probability of a major reduction in aggregate unemployment within the next couple of years.
4 The long-duration unemployed are an increasing fraction of total unemployment. Long-duration unemployment has very severe personal costs to the unemployed, as well as introducing a significant degree of persistence into aggregate unemployment, since long spells of unemployment tend to decrease the employability of the unemployed.

However, all these points of agreement have not produced agreement on the wisdom of a monetary policy aimed at zero inflation.

And in the debates on this issue, it is interesting to observe that, despite the change in government, Bank of Canada and Ministry of Finance economists continue to use the same language in private discussions as in the public rhetoric of political statements – they refer repeatedly to the macroeconomic policies of 1988 to 1993 as "laying the foundations for sustainable growth."

FAITH AND SALVATION

Differences of opinion about macroeconomic policy are really about faith, or more precisely, about lack of faith. After all, if one observes people digging, and the hole they are digging is getting deeper and deeper, how is one to know whether this is an ordinary hole, or the hole for the foundation of a building? How can one, empirically, tell the difference? If they are asked what they are doing, and they say, "We are not digging a hole, we are digging the excavation for a *big* foundation for a *beautiful* building," how can an impartial observer know if this is true? One can ask, "Who will build this building?" but if the answer received is, "The market will build the building," how can one know whether this reveals justifiable faith in the private sector, or wishful thinking?

Faith provides both a particular interpretation of past events and a particular expectation of future events. In the case of the Bank of Canada, faith in the virtues of zero inflation was stronger than the law, more powerful than democratic sentiment, and unsupported by empirical evidence. The problem for Canada is that those who held this faith continue to have great power over the Canadian economy and many personal and professional incentives to avoid recognizing any evidence inconsistent with their faith.

The religion of salvation through zero inflation was clearly evident during the constitutional discussions of 1991–92, when the federal government made the proposal to limit forever the mandate of the Bank of Canada to the target of attaining a zero rate of price inflation. The doctrines of the faith, as enumerated in these discussions, were that (1) the *only* contribution that the Bank of Canada can make to the well-being of Canadians in the long run is to maintain a constant price level; (2) other economic objectives such as mitigating the fluctuations of production, trade, and unemployment either cannot be achieved or can be achieved only through price stability; and (3) the long-run gains from maintaining a constant price level in Canada exceed the short-run costs of the massive unemployment necessary to eliminate inflation permanently.[2]

These propositions can be fairly described as a religion, because although there is a well-elaborated theology, there is only fragile evidence to support such assertions. And as a religion, the doctrine of zero inflation has many familiar characteristics – a single deity, the promise of inevitable damnation to non-believers, and "pie in the sky" (bye and bye) for believers.

Faith in the doctrine of zero inflation is clearly stronger than law – the Bank of Canada Act explicitly enjoins the Bank of Canada to a *multiplicity* of objectives. The law requires the Bank of Canada "to regulate credit and currency in the best interest of the economic life of the nation, to control and protect the external value of the national monetary unit and to mitigate by its influence fluctuations in the general level of production, trade, prices and employment, so far as may be possible in the scope of monetary action, and generally to promote the economic and financial welfare of Canada."[3] However, despite the multiplicity of objectives specified in legislation, the operational objective of the Bank of Canada has become price constancy, and nothing else.

One might have thought that in a democracy, public opinion would be powerful, but the doctrine of zero inflation is stronger than that as well. Public opinion in Canada was clearly hostile to the acceleration of inflation in the late 1970s, and during this period public opinion polls consistently showed that a large number of Canadians wanted to "get inflation under control." However, getting inflation under control is a very different thing from getting it to zero. The long-run (sixty-year) average inflation rate in Canada is about 3.5 percent per annum, and by the mid-1980s inflation in Canada had returned to that historic range. Between 1984 and 1988 inflation in the Consumer Price Index averaged 4.1 percent per annum in Canada.

ZERO INFLATION FOR ETERNITY?

However, the Bank of Canada in 1988 aimed at something far more fundamental than keeping inflation under control. In that year the Bank of Canada decided to aim at "price stability," which, taken literally, means an inflation rate of *zero*. As a conscious strategy, the Bank of Canada implemented a restrictive monetary policy that produced historically high real interest rates and a long and severe recession. Although Canada was joined in recession misery by the United States and the United Kingdom, one must not forget that recession in Canada predated recession in both these countries – it

was, in a very real sense, "made in Canada." Furthermore, Canada remained in recession much longer than either of these countries because the major levers of macroeconomic policy were locked in reverse. Federal and provincial governments tried to cut expenditures to keep up with the decline in their revenues, thereby perpetuating the decline in economic activity. In real terms, interest rates remain high by the conscious decision of the Bank of Canada, which remains reluctant to stimulate economic activity.

When inflation is "under control" at its long-run trend rate of 3.5 percent to 4 percent, there is some remaining uncertainty in the exact level of inflation one can expect and some costs to occasionally changing prices to reflect inflation. There is no evidence that Canadians wanted to trade off the remaining uncertainty in low, but fairly stable, inflation for continual insecurity in job availability. And there is no reason to believe it would be rational for them to want to do so – after all, economists tend to emphasize that markets have both price *and* quantity dimensions.

One of the most surprising aspects of discussions with colleagues from the Bank of Canada and the Ministry of Finance is learning that they are much more "academic" than most academics. Although models of stable, long-run, "steady-state" growth can be fascinating, most academics know that these are theoretical models and they cannot imagine that the real world will, in fact, be as stable and predictable as the models of economic theory. It strains credulity to imagine that Canada's economy will not be subject, in the next twenty-five or thirty years, to shocks that are at least as large as the external shocks we have experienced over the last thirty years. The real world always brings us surprises, such as the acceleration of United States' inflation in the late 1960s, the price shocks of the Organization of Petroleum Exporting Countries in the 1970s, and the commodity price collapse in the 1980s.

In the real world, such external shocks have an impact both on relative prices and on the aggregate price level: if the aggregate price level is to be frozen forever, all future external shocks to the Canadian economic system must be absorbed by variations in aggregate quantities of production and employment. Since we can be sure that future shocks *will* exist in the real world, a policy of maintaining a constant price level is necessarily a policy of greater quantity instability. If price "stability" is to be maintained, any future short-run shock to the economy that produces a short-run general increase in the price level *must also* be followed by a period of generally declining prices (enforced, if necessary, by restrictive monetary policy) in order to keep the long-run average inflation rate at approximately zero.[4]

There is no reason to believe that Canadians ever wanted this policy shift.

EMPIRICAL EVIDENCE

One must also stress that there is no empirical evidence on the long-run pay-off to maintaining zero inflation, for the simple reason that no country has done it for very long in modern times. There *is* a great deal of evidence on the costs of high unemployment. When one adds the output lost in 1995 to the output lost in between 1990 and 1994, as well as the output that will be lost in 1996 and in successive years, one is clearly talking about hundreds of billions of dollars of foregone output (see, for example, Fortin 1996). There is also a substantial literature in sociology and social psychology on the human costs of unemployment – in mental and physical illness, family violence, suicide, and crime.[5]

What empirical evidence exists on the benefits of a constant price level? What does Canadian society get if the Bank of Canada succeeds in maintaining a near-zero rate of price inflation in the long term?

Clearly, *hyperinflation* has many negative implications for economic equity and efficiency. For *moderate inflation*, the evidence is less clear. Levine and Zervos (1993: 428) conclude that "inflation is not significantly negatively correlated with long-run growth. More impressively, we could not find a combination of variables that produced a significant negative association between growth and average inflation over the 1960 to 1989 period." As Pierre Fortin has demonstrated, econometric estimates of the relationship between rates of inflation and productivity growth are extremely fragile, since a few high-inflation countries will inevitably dominate an ordinary-least-squares regression, just as a few anecdotes from Latin American hyperinflation clearly dominate journalistic discussions of inflation. However, since most of the developed countries have, since the 1960s, had average inflation rates within a fairly narrow range (4 percent to 11 percent), the inclusion or exclusion of a few high-inflation countries such as Peru and Turkey can easily dominate regression results. As well, the inclusion or exclusion of other variables such as population size can significantly influence estimates of the relationship between inflation and growth rates. Nevertheless, despite the difficulties of estimation, many economists believe that high and unstable rates of inflation are undesirable, for both social and economic reasons.

However, the issue in Canada is *not* the evils of 400-percent inflation, or 40-percent inflation, or 10-percent inflation. The issue in

Canada is the benefits, and the costs, of the Bank of Canada's decision in 1988 to try to go from 4-percent inflation to 0-percent inflation. Since it is agreed by all that there are high short-run costs to this decision, the decision makes sense only if inflation goes to zero and can be kept there for the very long time that is required in order to recoup the costs of the current recession. The Bank of Canada's decision makes sense only if inflation is reduced to zero, *and stays there* for the next twenty-five to thirty years.

One recent discussion of the relationship between inflation and macroeconomic performance is a Bank of Canada discussion paper, authored by Cozier and Selody (1992). In it they note that the lowest average inflation rate in their sample of sixty-two countries between 1960 and 1985 is 3.6 percent per annum. In other words, *no country* attained a long-run rate of inflation that is even approximately equal to zero. Paragons of financial virtue such as Germany and Switzerland had average inflation rates for this period of 3.8 percent and 4.1 percent respectively. Japan (a notoriously poor performer) had an average inflation rate of 6.2 percent yearly. Canada was well below the sample mean, with an average inflation rate of 5.6 percent, while the long-term inflation winner was Malaysia with 3.6 percent.

In econometrics classes, we teach our students that it is statistically invalid to make predictions that are well out of the range of observed data. Yet zero inflation is well out of the range of historically observed data. Indeed, the relationship estimated by Cozier and Selody between output growth and inflation breaks down, in a bizarre way, at very low rates of inflation. Over the sample as a whole, estimating a relationship in which the logarithm of output growth is regressed on the logarithm of the inflation rate implies that the estimated regression coefficient is an *elasticity* (in this case, –0.6). However, this specification also implies that a 1-percentage-point drop in inflation represents a much smaller proportionate change when one is moving from 20-percent inflation to 19-percent inflation, than when one is going from 2-percent to 1-percent inflation. Taken literally, the log-log specification implies that the benefit of going from 4-percent inflation to 2-percent inflation (a 50-percent decline) would be a 30-percent increase in the growth rate. The benefits of moving from 2-percent inflation to zero percent would be an infinitely large increase in output![6]

Clearly, if there is a relationship between inflation and macroeconomic performance, the relationship that is estimated over the range of historically observed data (i.e., 4 percent plus, as a long-term average) *cannot* be extrapolated to the historically unobserved range of a long-term average inflation rate of 0 percent to 2 percent. However,

the bank's policy decisions were not, in fact, based on empirical research. The Cozier and Selody regressions of 1992 did not in fact influence the policy decisions of the Bank of Canada, since these were taken in 1988. The publication dates of almost all the empirical research on the inflation-growth relationship make it clear that a 1988 decision to go for zero inflation could only have been based on faith.[7]

A policy of focusing on zero inflation in the long run *above all other* goals is not consistent with the legislated goals of the Bank of Canada, nor is it supported by public opinion or based on empirical evidence. This policy can be based only on faith, since no country has, in modern times, succeeded in maintaining a rate of inflation approximately equal to zero for anything like the length of time necessary for this policy to pay off. But although it may not be easy to predict why a person will choose a particular faith, history does provide many examples of the proposition that faith *combined with self-interest* makes a potent brew. If we think of the incentives that the different sides of this debate face, we will recognize that it was next to impossible for the governor of the Bank of Canada to admit the possibility of error, once the decision was made.

INCENTIVES AND OBJECTIVITY

If I look at my personal incentives for accepting or rejecting new evidence on the relationship between inflation, productivity, and unemployment, I recognize that my past arguments against the policy of zero inflation create a barrier for my ego – the same barrier that we all face in admitting that we have been wrong. This barrier may colour my judgments in assessing the strength of new arguments and new evidence on the issue. On the other hand, as a professor of economics, I am expected to examine the evidence dispassionately. If I were to convert to monetarism, I would gain new friends (and lose old ones), but I could expect to receive increased status, as someone who is scientifically objective in their consideration of the evidence. Financially, I could probably expect an increase in my consulting income, since the Fraser Institute or the Business Council on National Issues likes nothing better than a "lapsed lefty." But whatever happens, I have tenure. My current job will always be there, and nothing very important in my personal life will change.

The incentives to deny new evidence, and to persist in the pursuit of previously announced policy, are entirely different for the governor of the Bank of Canada and his most senior advisers. After inducing the most severe recession in fifty years in the pursuit of zero inflation, they could not conceivably appear before the Commons

Committee on Finance and say, "We got it wrong." All incentives – personal, professional, and financial – point to refusing to admit error.

Most individuals would find it inconsistent with their sense of fundamental decency to admit that they have been responsible for a policy that has caused enormous pain to thousands of people, to no good purpose. To the ordinary barriers of ego, senior Bank of Canada officials must add the sense of personal responsibility that goes with the power of the bank. It is inconceivable that the governor could admit error on such a fundamental policy and expect to retain his job; therefore, income, prestige, and power have been on the line, over and above the personal psychological impediments to admitting error. It is thus probably just about impossible for the governor and senior staff of the Bank of Canada to admit the error of their faith and their policy – and it is always possible for them to see the benefits that are "just around the corner, if only we stay the course, for just a little bit longer."

THE POLICY PROBLEM

Canada has, therefore, a very big policy problem. The policy of high real interest rates that the Bank of Canada followed over the period 1988 to 1993 produced a huge inflow of foreign capital and an overvalued foreign exchange rate. As a consequence, there is a very large overhang of foreign debt and current account deficit. Canada quickly became far more dependent on the vagaries of opinion of international capital markets than it was previously.

Furthermore, if the policies of the Bank of Canada become personalized in the governor of the Bank of Canada, the fate of the governor becomes an important public issue. If he were to fall under a bus, or face removal from office, capital markets would not know what to expect. The governor of the Bank of Canada therefore possesses immense power, since the threat of his resignation (or even a hint of disagreement with the elected government of the day) could well spark an extremely serious foreign exchange crisis.

In December 1993, it was announced that Governor Crow would not be reappointed, and Assistant Governor Thiessen was promoted to fill his place. In a careful mix of signals, it was stated that the inflation-reduction targets would be extended to 1998 *and* the incoming governor stated the bank's interest in promoting growth in output and employment. Despite widespread predictions of a foreign exchange crisis if Governor Crow were not reappointed, the Canadian dollar did not fall (and indeed rose slightly on the news).

Financial markets were reassured by the fact that the new governor had been a party to the policy making of the previous five years, but there were, at the same time, hints to the media that he was more "pragmatic" in his opinions.

However, for a country as large as Canada, it is bizarre that so much should depend on the opinions of a single unelected person. It is surely undesirable that, despite the need of financial markets for continuity in policy, the administration of the Bank of Canada can change in discrete jumps at infrequent intervals. In a democratic society, it is also highly undesirable that the elected representatives of the people should have, in practice, so little real influence on the decisions of such an important agency. I would, therefore, suggest that Canada would be well served by adopting the operational model of the Federal Reserve Board in the United States, whose crucial characteristic is that monetary policy is made by the majority vote of a committee, and whose members serve fixed, overlapping terms. If, for example, the board of directors of the Bank of Canada had real operational power over monetary policy and if one-seventh of the directors of the bank were replaced each year, one would have an institutional arrangement that would guarantee both continuity in monetary policy *and* the possibility that empirical evidence could shape the policy decisions of the day. If there was a rotating chairmanship, and the requirement that directors be full-time, each supported by a small research staff and resident in the different regions of the country, the result might well be a more balanced input of perspectives on the real economy and better monetary policy decisions.

CONCLUSION

This essay has argued that although there may be widespread agreement about the severity of the recent recession, there is little agreement as to the wisdom of the policies that produced it. Since the policy goal of a constant price level, for the long term, is not based on the legislated mandate to the Bank of Canada, is not supported by public opinion, and is not derived from an empirical analysis of the costs and benefits of monetary policy, such a policy goal can be supported only by faith. The Bank of Canada has taken us into unknown territory, and it remains an article of faith as to whether it is "digging a hole or laying the foundation."

Personally, I do not have the gift of faith. Although Mike McCracken (1996) has suggested that holes can be graves, I profoundly hope that the continued high unemployment of the 1990s,

and the zero-inflation policy that has produced it, will not be a mass grave for the hopes and aspirations of hundreds of thousands of Canadians.

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NOTES

1 For an estimate of the output gap in Canada, see Fortin (1996) or McCracken (1996). An output gap of $70 billion is unimaginably large, representing about six to eight times the amount of money necessary to eliminate poverty in Canada for this year. The poverty gap in 1981 was 1.3 percent of GDP, rising to 1.6 percent in 1990 – see National Council of Welfare (1992: 45) or Osberg (1992: 46).

2 See Minister of Supply and Services (1991: 37).

3 Ibid. (38).

4 If price shocks are accommodated, there will necessarily be *some* inflation; hence there will be uncertainty as to the value of money. The whole argument for zero inflation is based on the supposed benefits of "sound money" – i.e., accommodating shocks would negate the policy.

5 See, for example, Hayes and Nutman (1981) or Kelvin and Jarrett (1985).

6 Cozier and Selody argue that since they also estimate a linear inflation-productivity relationship, readers should not worry about the specifics of the log-log specification. However, the implications of a linear specification are even more unattractive, since such a specification implies that if going from 6-percent inflation to 2-percent inflation increases the growth rate, going from +2-percent inflation to −2-percent inflation (i.e., deflation) would increase the growth rate even further. Clearly, however, deflation is likely to have substantially different impacts on the real economy than slower inflation. The point is that one cannot estimate valid "out-of-sample" results.

7 See the references in Selody (1993) for evidence on the empirical content and date of publication of support for the zero-inflation argument. The only then existing empirical study of the productivity benefits to Canada of zero inflation (Cozier and Selody 1982) was widely referred to by advocates of the zero-inflation initiative at the time (e.g. Howitt 1990) but has since been largely discredited (see MacLean and Setterfield 1993).

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