Remarks by Mark Carney
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Flexibility versus Credibility in Inflation-Targeting Frameworks

It is an honour for me to participate in this panel alongside Martin Feldstein and Stanley Fischer. Just as central bankers are forward looking in the conduct of monetary policy, it is entirely appropriate that the BIS coordinate a session that looks beyond price stability to the challenges ahead. With the challenges that we currently face, it is understandable that some may desire greater flexibility in the conduct of monetary policy. However, the value of this greater flexibility depends on the extent to which it detracts from monetary policy credibility. I will concentrate my brief remarks today on the themes of flexibility and credibility.

I would like to state at the outset that what follows is a discussion of ideas worthy of consideration. It should not be seen as having any bearing on the current conduct of monetary policy in Canada. The Bank's current inflation- control agreement with the Government of Canada will remain in effect until the end of 2011. Changes to our agreement with the Government, if any were desired by both parties, would only come into effect thereafter.

Arguments for Greater Flexibility

There are two broad classes of arguments for greater flexibility in the design and application of monetary policy frameworks. The BIS has done a great deal of useful work on asset-price targeting in particular and on the complicated interplay between monetary policy and financial stability in general. My fellow Canadian, Bill White, framed the discussion about flexibility for inflation targeters with his paper "Is Price Stability Enough?" In this paper, Bill argues that policy-makers should respond flexibly to shocks that create persistent financial imbalances. In particular, he suggests that policy-makers should extend the inflation horizon and pre-emptively

tighten policy when faced with such shocks. This would have the practical consequence of purposely deviating from the inflation target temporarily in order to avoid more costly deflationary busts down the road.

Others argue that globalization creates similar imperatives. For instance, throughout this decade, there has been a secular disinflation (relative to target) in goods prices, reflecting the efficiencies from creating global supply chains and outsourcing some production to emerging markets. Some suggest that these same emerging markets are creating *persistent* commodity-price inflation.[1] Finally, the current international monetary order – wherein a large dollar block coexists with floating currencies – may create additional shocks, including low long-term interest rates and unevenly distributed exchange rate adjustment. Should any of these forces be taken into consideration in either the design of monetary policy frameworks or the choice of monetary policy parameters?

Flexibility and Adjustment

Arguments for flexibility in monetary policy frameworks can be considered in the context of the broader principle that policy flexibility helps lower adjustment costs. In theory, social welfare is reduced when there are constraints on the ability of policy-makers to optimize economic adjustment. Policy frameworks should be flexible enough for the natural adjustment processes in the economy to determine the speed of adjustment to shocks. Throughout this decade in Canada, we have seen how policies that promote flexibility in labour and product markets reduce adjustment costs. In contrast, policy constraints on market prices – such as fixed exchange rates or subsidized energy prices – make adjustment to economic shocks more costly. If a shock is major and has widespread consequences, such rigidities impose costs on other countries because those flexible prices must adjust in an unnecessarily large or rapid way.

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[1] That view is certainly not unanimous, as I argue in "Capitalizing on the Commodity Boom: the Role of Monetary Policy" (speech to the Commodities, the Economy, and Money conference, Calgary, 19 June 2008).

In the face of large and possibly persistent shocks, the design and parameterization of monetary policy frameworks depends *in part* on the trade-off between flexibility and credibility. This, in turn, is a function of both the extent to which (inflexible) rules enhance credibility and our ability to make the judgments required to deploy any flexibility in a credible manner.

The principle of policy flexibility is already embodied in our macroeconomic models. When we calculate the policy response to shocks in these models, it is optimal for policy to allow inflation to return to target at different speeds, depending on the type and characteristics of the shocks hitting the economy. This implies different amplitudes of the inflation cycle and different time horizons for inflation to return to target.

In contrast, the parameters in today's inflation-targeting frameworks generally do not vary with the type of shocks hitting the economy. For example, the numeric value of the target itself is held constant in the face of all shocks, even though it might sometimes be beneficial to temporarily adjust it to lean against the wind. This point can also be cast in terms of making the operational target – i.e., core inflation – a function of the shocks hitting the economy. As well, the band or confidence interval around the target is held constant, even though it may sometimes be beneficial to worry less about inflation volatility in a period of highly volatile, but transient, shocks. Finally, the time horizon for returning inflation to target is usually held constant. As a consequence, it can be too short to factor in fully the longer-run disruptions associated with, for example, building asset imbalances.

The current parameters are not arbitrary. In Canada, the 2-per-cent target for the total consumer price index reflects the measurement bias inherent in the CPI, the risks associated with the zero lower bound and concerns about downward nominal wage rigidities. The 1-percentage-point range around the target reflects the

unconditional variance of the inflation process.[2] The 18- to 24-month time horizon reflects the lagged response to monetary policy action.[3]

This inflexibility has significant value. It provides clarity of objectives and holds central bankers accountable. When policy lacks credibility, it can be beneficial to have simple inflexible elements in the framework because they demonstrate the policy-makers' commitment to that policy. If the inflation target is achieved, it enhances the credibility of the central bank and creates a virtuous circle whereby increased policy credibility further anchors inflation expectations, which then contribute to a more stable macroeconomic environment, which, in turn, enhances policy credibility. We should be careful neither to underweight the value of resulting simple heuristics nor to minimize the risks of complicating them.

When then to be flexible?

Once credibility is achieved and the operation of the framework better understood, could credibility be retained if the parameters were adjusted to reflect the characteristics of the shocks hitting the economy at any particular time? Flexible inflation targeting works well with temporary or one-off shocks. Whether it can adapt to address unique but longer-lived shocks (such as an asset boom or secular changes wrought by globalization) is the pertinent question. What constitutes a "unique" shock? Can we expect authorities, if they are granted flexibility, to be sufficiently disciplined not to decide that *all* shocks are uniquely virulent? Everyone always thinks they live in interesting times.

Financial imbalances certainly are interesting. However, it is not clear that monetary policy-makers should be the first line of defence. Recent events in a variety of jurisdictions demonstrate the shortcomings of the current system where the degree of financial stability is a by-product, rather than an objective, of regulatory policy.

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[2] It can also be argued that the range should be conditional on the nature of the shock to inflation.

[3] Note that in Canada, unlike some countries, the CPI fully captures the direct effect on inflation of changes in house prices in the "owned accommodation" component of the CPI, which includes mortgage interest cost, replacement cost, property taxes, house insurance, maintenance and repairs, and "other owned accommodation expenses." This component represents 16.5 per cent of the CPI basket.

Central banks, as guardians of macroeconomic stability, naturally ask whether they should play a role. It does not necessarily follow that that role extends to the conduct of monetary policy. Central banks may have the ability to foresee macrofinancial instability. Whether they have the appropriate tools to prevent it is another matter. I am most sympathetic to the idea that policy-makers should consider the development of macroprudential regulations to restrain procyclical liquidity creation among financial institutions. The design and scope of such regulation remains to be determined and in many jurisdictions, including Canada, there are the added complications of determining where to house this regulatory authority and how to coordinate it with other regulators.[4]

If the regulatory framework is appropriately designed, could it be reinforced by monetary policy? Professor Issing provides one answer. He argues that the ECB's monetary pillar can act as a signal for flexibility, perhaps in the monetary policy horizon, in the presence of excess credit creation. Michael Woodford agrees that money and credit can have a useful role, but cautions against incorporating them in the monetary policy reaction function.[5]

Do those situations that arise from the globalization process create a case for additional policy flexibility? There are some practical difficulties such as the conflicting implications globalization may have for consumer-price inflation. For example, its impact on manufactured goods prices argues for a lower target; its impact on commodity prices for a higher one.[6] Moreover, these conflicting forces are basically price-level effects, though ones that could go on for some time. Similarly, the current international monetary order argues for tighter policy due to artificially low long-term interest rates and for looser policy in countries that have seen excessive exchange rate appreciation. Further complicating matters is the fact that the

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[4] For a full discussion, see M. Carney, "Principles for Liquid Markets" (speech to the New York Association for Business Economics, New York, New York, 22 May 2008).
[5] See the presentations by Issing and Woodford to this conference, published by the BIS.
[6] Some of these effects are not that material. Recent Bank of Canada research estimated that, on average, the direct effect of consumer goods imported from China reduced the inflation rate by about 0.1 percentage points per year from 2001 to 2006. See L. Morel, "The Direct Effect of China on Canadian Consumer Prices: An Empirical Assessment" (Discussion Paper No. 2007-10, Bank of Canada, 2007).

globalization process is neither monotonic nor relentless. Its impacts will wax and wane over time, raising the question of how frequently policy parameters might be adjusted in the face of these shifting trends. In the pursuit of flexibility, how do we prevent this from looking terribly arbitrary?

These difficulties are not trivial, so considerable care needs to be taken. The benefit of greater flexibility may not be worth the risk of forfeited credibility, particularly if it simply adds to confusion about the conduct of policy. This points to the overriding importance of communication, rightly stressed by Alan Blinder.[7]

The current environment underscores many of the strengths of flexible inflation targeting. The commodity-price shock has resulted in inflation rising above target in a number of jurisdictions. Provided expectations are well-anchored, policy appropriate, and communication effective, people will look through this spike to the eventual return of inflation to its well-understood target. Of course, this implies the need for short-term flexibility in the target, but a well-designed inflation-targeting regime allows for temporary deviations from target in the face of shocks. Provided the framework retains credibility, that flexibility can and should be used.

Price-Level Targeting

There is one final consideration. Inflation-targeting regimes have one element of flexibility that could potentially reduce credibility: their use of an annual inflation measure that allows monetary authorities to overlook price-level adjustments that they believe to be one-off events. Bygones are bygones. This is not a problem when shocks are small and symmetrical because the price level will fluctuate around the level consistent with the inflation target. Indeed, that has been our experience in Canada over 15 years of targeting inflation. Shocks have been random and the price level has ended up almost exactly where one would have expected since we adopted a 2-per-cent target. However, if shocks were large and one-sided and policy did not

[7] See the presentation by Blinder to this conference, published by the BIS.

respond, the price level would drift from the expected path. Such a persistent error would reduce credibility over time.

It is worth considering whether targeting the price level would enhance policy credibility in the face of a large, persistent shock. If anticipated, temporary price-level drift could be accommodated by extending the horizon, while credibility would be retained by the fact that the drift would be tracked and eventually reversed. If unanticipated, the promise to correct it that is central to price-level targeting could preserve credibility. The Bank of Canada is currently pursuing a research agenda to determine the gains from adding greater price-level memory to the inflation-targeting framework.

Conclusion

To conclude, constraints in the policy framework may have helped to gain credibility for the framework when it was new, but now that it is better understood, it is time to ask whether we can do better. In principle, we could do better by making inflexible elements more flexible or by giving the framework more memory about the price level to compensate for any loss of credibility. Doing so should increase social welfare by allowing policy to be better aligned with the natural adjustment processes in the economy, thereby adding to the social welfare benefits that come from delivering low, stable, and predictable inflation.