# The Future of Inflation Targeting

I hope that I will not disappoint the Conference organizers if I say that I will not focus on the merits of explicit inflation targeting (as practiced, say, by the Bank of Canada),as opposed to the merits of simply pursuing “near-term” price stability(as practiced,say, by the Fed, the ECB or the Bank of Japan). In fact, between these two schools there seems to be much more that unites them than divides them. In particular, the evidence is not at all clear that the former systematically get a better inflation performance than the latter. Moreover, much of the empirical evidence I have seen seems to imply their short term policy reaction functions are very similar. And perhaps the biggest unifying factor is that they might all have been subject to the same kinds of policy errors in recent years.

If this seems a rather shocking introduction, let me stress up front, that I am not advocating that central banks should not pursue price and financial stability, but rather that they should pursue it in a rather different way. And, moreover, I will eventually suggest that they should do so in much closer collaboration with their regulatory and supervisory colleagues than is currently fashionable today.

Almost since I left the bank of Canada 14years ago, if not even before, I have felt that the achievement of price stability was “not enough” to ensure good macroeconnmic performance. It was perhaps necessary, but certainly not sufficient. Today, in light of unfolding events, I feel even more strongly that we need to redefine our operating paradigm of seeking price stability. There are a number of  good reasons to believe that the time is **ripe for a serious rethink** of how we do things, one reason is new and the others are of longer standing.

What is new today is the serious economic and financial situation in which we currently find ourselves, in spite of almost twenty years of increased emphasis in industrial countries on the pursuit of price stability, and ten years of similar emphasis in most emerging market countries. We are in a huge mess, with every positive aspect of the previous years of the "Great Moderation" now showing a sharply opposite face. Inflation, once moderate, is now rising virtually everywhere with the EME's showing the greatest deterioration. Prospects for real growth are shrinking fast, with the major industrial countries that have recently done the best facing the bleakest outlooks. The financial system in the major centres in now dysfunctional in many way, with asset prices dropping and the adequacy of capital at many financial institutions being increasingly called into question. Worse, as raising capital threatens to become prohibitively expensive there is a very real threat of tightening credit conditions that could feed on both asset prices and the real economy in a further contractionary loop. I have been around this business for almost forty years now and this is arguably the worst combination of circumstances seen in the post war period. This hardly inspires confidence in the "price stability" policy paradigm that provided the backdrop for this unfortunate turn of events.

But there are other reasons for believing that a rethink of our views, if not necessarily a rejection of them, might be useful. Perhaps the oldest reason is essentially philosophical. Aside from pure mathematics, you can never be sure that you are right about anything..

I think of Oliver Cromwell's statement to the Scottish Parliament

"Brothers, I beg you n the bowels etc…

Or a little more recently, Mark Twain who said

It ain't the things you don't know that etc. "

Fortunately, this open mindedness to the possibility of error has always been the case here at the Bank of Canada, as all of us who worked on monetary targeting and the MCI will surely remember. Perhaps it is a propitious sign that we are all meeting here at the bank off Canada today.

It is simply a fact that economist and central banks have made huge errors in the past. This should at the least open our minds to the possibility they could conceivably be in error again. ("even an economist… ") At one time people believed their was a negatively sloped long term Philips curve,. At one time people believed that inflation was essentially a cost driven phenomenon. At one time, in the late 1970's, people believed that inflationary expectations were sticky, that the short term Philips curve was flat (both of which beliefs are again being expressed today) and that it would therefore be far too costly to fight inflation. All of these views share just one characteristic. They were all wrong.

And I would add a further element of scepticism about what we can state with confidence. The global economy has been subject to enormous structural change in recent years, changes affecting both the real side of the economy and the financial side. Against this backdrop, it is hard not to be suspicious of all formal modelling work that assumes some form of parametric stability.

One straw in the wind, indicating that a systematic rethink of what we believe might already be in the cards, can be found in the current disagreements among the major central banks concerning how we should best conduct monetary policy. Perhaps the biggest issue has to do with the appropriate role of money and credit. At one extreme, the Fed seems to give such indicators very little emphasis. In contrast, the ECB has its well known "two pillars", with the second pillar having its roots in a low frequency association (positive) between monetary growth and inflation. In still further contrast, the Bank of Japan has its "two perspectives", the second of which seems to say to me that they will not allow a repeat of the mistakes of the 1980's. But this (again to me) seems to assume that too rapid credit growth is a s likely to lead to deflation (via a "boom-bust" process as inflation.

And of course, there are many other disputed areas as well. Should one lean against credit bubbles (what I call the “lean not clean” school) or is this effectively impossible implying that cleaning up afterwards (“clean not lean”) is the only practical alternative? What should be the definition of near term inflation that a central bank should focus on since  core and headline data have been diverging seriously for years?. What is the best policy instrument, the overnight rate as most feel, or the three month LIBOR favoured by the Swiss National bank? Are inflationary expectations truly forward looking, determined by a credible framework of central bank control, or are they rather backward looking and thus likely to quickly ratchet up when good luck (positive supply shocks) turns to bad?. This long list of disputed issues, and many more could be added, also suggest that we should not be to hesitant to re evaluate even long held beliefs.

Well, an open mind is one thing, but some guidance towards a new set of beliefs would also be highly welcome. One approach, which I will follow today, is to ask **how the global economy got into this current mess.** With the source of current problems clearly identified, this could (and I believe, will) help point us towards a refinement of our policy approaches that might avoid a repeat of such circumstances in the future.

There are really two schools of thought about our current difficulties. Likely both are true, but the second school is in my view the more important. The first  I call the “school of what is different”. The focus is on new financial instruments and processes (SIV’s, structured products, role of rating agencies etc.) which, being new and poorly understood, were the origin of the financial turmoil. This is all right as far as it goes, but these new financial developments in themselves would hardly seem capable of explaining the sharp turnaround in both growth prospects and inflation. These developments seem to me to have their roots in macroeconomic phenomena.

The “school of what is the same” focuses on this latter possibility. It suggests that continuing low inflation over almost two decades, in large part generated by positive supply side shocks, blinded central banks to two possibilities. First, by keeping policy rates low for an extended period, that the resulting monetary and credit expansion would initially manifest itself as faster real growth, but eventually manifest itself as higher inflation (“Inflation is always etc.. ) Second. there was the unanticipated danger that these easy credit conditions would foster (or at least fail to lean against ) the natural “procyclicality” of the economic and financial system.

This unfamiliar thought might be worth further explanation. By “procyclicality” I mean the natural tendency of economic agents to extrapolate both the good times and the bad. Some piece of good news leads to optimism on the part of both lenders and borrowers, leading in turn to more credit, higher asset prices and eventually imprudent changes in spending behaviour. Think of US consumers and corporate investors in China. In this process, not only does collateral become more available, but the appetite for taking risk rises as well. And as credit standards decline, rational exuberance turns to irrational exuberance, optimism becomes excessive optimism, and in the end the bubble bursts.

I should note here that even the school of “what is different” owes a lot to the school of “what is the same”. Low policy rates not only drive the search for yield, especially among those like pension funds with contractual obligations on their liabilities, but also encourage the creation of new instruments. Raghu Rajan has repeatedly made the point that the explicit purpose of many new instruments is to push the risk into the tails where it effectively seems to disappear. CDo’s and CLo’s are obvious examples. Arguably, the search for yield has also encouraged the willingness to write deeply out of the money options. Again, we have a case where the returns are up front and the prospective losses are only hypothetical. And similarly, low yields in some counties have encouraged carry trades that ought not to happen if UIP were given proper consideration. To repeat, the role played by macreconomic variables in everything that we have witnessed should not be underestimated.

To put all of this into a more explicitly macro framework (albeit a very old one), think of a global IS/LM model with a vertical aggregate supply function. With so many countries effectively pegged to the US $, this is not a completely crazy starting point. Over the last number of years, we have to explain simultaneously three unusual phenomena. Record fast growth at the global level, very low and stable inflation and the "conundrum" of very low interest rates. I would contend that the place to start is with a downward shift in the IS function, not as saving rises, but as investment collapses after the Japanese bubble, German reunification, the SEA crisis and the collapse of the TMT sectors in the late 1990's. I would also postulate an outward shit of the real output (global potential function) in response to productivity enhancing technical progress and globalistaion, especially the influence of EME's. Both of these shifts resulted in disinflationary pressures, which in turn caused global monetary authorities to use monetary creation to back in the deficient demand. This first began n the industrial countries but was then extended to the EMEs as they both intervened and eased domestic monetary policy to hold down their exchange rates. This is the only way I can think of to explain simultaneously all three of the unusual phenomena just mentioned.

In the context of this essentially one period model, the degree of global monetary easing we have seen in recent years might seem imminently sensible. However, as noted above, two problems now seem to be emerging. The first is that the easing has been so successful that the global output gap has been closed and inflationary pressures are at last rising. Nor, especially in the EME's does their seem to be much appetite for resisting these pressures. This implies that many of the IT countries might be tempted to jettison this anchor, which would be a grat mistake and also have serious implications for inflation in the industrial countries.

The second problem has to do with inter temporal problems not considered in a one period model. Over time, a number of “imbalances” have emerged that are not sustainable. Among these I would include asset prices that seem exceptionally high relative to fundamentals, levels of saving (very low in English speaking countries) and investment (very high in China) that could well mean revert, amid associated problems in financial systems that are now putting creditors at risk as much as debtors. The crisis began last July in the financial markets (a Minsky moment) but could just as easily have begun elsewhere; indeed arguably the real roots were in the sharply deteriorating US housing market. The important issue is not the nature of the turning point, but that real and financial factors interacted to produce the boom and that are likely to interact equally strongly during the bust. The upshot is that the unwinding of these imbalances could well imply a much deeper and more prolonged recession than many now expect .

When one goes back in history, we do indeed see that there were serious recessions in many important countries, after 1874 and 1929 in particular. The same can be said about the aftermath of the Japanese bubble and the SEA crisis of the mid 1990’s. They all looked much the same as the procyclical process I just described. Moreover, none of them was preceded by any overt inflation. This ought to teach us that price stability is not sufficient to avoid all major setbacks. Perhaps more unsettling, since inflation is already on the rise, it could imply that our objective circumstances today might be even more difficult than they were then.

Evidently, the most important question today is how to get out of this mess. However, in this conference directed to the choice of monetary policy regimes, it would seem more appropriate to discuss how our regimes might be altered to prevent a recurrence of the current difficulties. I would like to suggest that we need a “new macro financial stability framework” to lean systematically against “pro cyclicality” in the credit cycle. This framework would continue to focus on the pursuit of price stability, but over a horizon long enough to incorporate the possibility imploding “bubbles”. Otherwise put, it would recognize that price stability can be threatened on the up side, but perhaps still more dangerously on the down side. As to the characteristics of this framework, I would stress three “S’s”; think systemic, think symmetric and think supportive.

Think systemic: Put heightened emphasis on supervision (whether by central banks or others) of financial institutions big enough or complex enough to have systemic implications if they should fail. Closely related, focus on the interactions between institutions and between institutions and markets assuming shared shocks and probably shared responses. Current stress tests get us only part of the way.

Think symmetric: Both regulatory and monetary policy instruments should be used to lean more systematically against the upturn of the credit cycle. This implies there will be less mess to clean up afterwards. Indeed, it could even lead to people behaving less excessively should they anticipate a public sector response. For monetary policy this might sometimes imply undershooting inflation targets, but the alternative might be to undershoot even more should the unconstrained bubble burst. For regulatory policy, it would imply that macroprudential instruments should be used to ensure that risk spreads, provisioning and capital accumulation move countercyclically. Today, it is clear that all these measures move procyclically, and fair value accounting aggravates this problem.

Lastly, think supportive: Regulators and central banks need to cooperate much more closely subject to the precepts just noted. Of course, this raises all sorts of questions about the definition of responsibilities and the allocation of responsibilities among agencies (Twin Peaks and the US Treasury proposals) but that is the subject of another conference.

So to sum up. I believe we have serious problems coming down the line, and that they are in part a by product of how we have conducted both monetary and regulatory policy. I believe that we can pursue price stability in a better way, and that the changes I would recommend are practically feasible. At the least, I would ask you to keep an open mind on all these issues.