MONETARY POLICY IN CANADA: TIME FOR CHANGE

Pushpa Kumari

May 2019

EPD
Economic Policy Dialogue

About the Author

Pushpa Kumari is a Senior Economist at Economic Policy Dialogue. She is an M A, M Phil, Ph D in Economics. Having research and teaching experience of more than a decade, she has many publications to her credit. Economic policy issues are where her profession and passion intersect the most among others areas of economic, social, and environmental importance.

email: pushpa@epdonline.org

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website: www.epdonline.org
email: epd@epdonline.org

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Preface

Canada's macroeconomic management is going through a challenging time. Debt is exploding. Assets' markets, especially real estate, are soaring. Real economy is stagnant. GDP and investment rates are on secular decline. Low interest rates are not able to stimulate the real economic activities, instead, piling up the financial vulnerabilities. Ironically, the inflation rate (low-&-stable) has been immune from whatever is happening in either the real economy or the financial economy. What a black magic of the inflation-targeting monetary framework!

The paradox of plenty seems to have so many other applications in the Canadian economy, even if one avoids the controversial resource curse. The paradox of plenty in the macroeconomy: swelling assets' economy alongside stagnating real economy. The paradox of plenty in industrial sectors: some sectors (e.g., real estate, construction, financial activities) are flourishing, whereas others (e.g., manufacturing) are declining. The paradox of plenty in the stability: price stability amid financial (over-leveraged) and economic (over-exposed with debt and assets) instabilities. The paradox of plenty in physical space: empty office-spaces or sometimes ghostly shopping malls amidst increasing gig economy entrepreneurs working from the basements of their (or parents') homes.

One may ignore the link between these rising and falling phenomena of the Canadian economy. However, there are limited resources and competing uses; and businesses allocate these resources into alternative investment activities by comparing the rates of return. This is what economics has in its first lesson of the production-possibility frontier through the butter versus guns model. When asset-investment can earn increasing returns with low risks, economic rationality will drive economic resources towards these and related activities obviously. Low interest rate regime, ensued by the low-and-stable inflation rate, will provide an expansion in the economy. Where, what, and how that expansion is taking place – this is what the economic managers' function to watch.

Since the 1970s, monetarism has been establishing its roots and evolving. At present, it has been dominating the macroeconomic economic management in Canada. Confining itself into the comfort zone of inflation targeting and shrugging off its responsibility for what else is happening in the economy, especially by its own policy-choices – what is certainly not expected from the economic manager like the central bank of Canada. It is time for the monetary authority to review its monetary policy; its framework, goals, and instrumentation. It is high time for it to rise to the challenge so that it can serve the purpose it has been established for!

Introduction

Canada's current macroeconomic management is dominated by monetarism. Since the 1970s, monetary policy has evolved and finally stabilized at the inflation-targeting framework. In fact, dependence on monetarism has now become a necessity, too, in light of the constrained fiscal policy legroom. Fiscal constraint has been caused by either low revenue mobilization or fiscal deficits or popular sentiments against fiscal debt or by all the above factors. Contemporary popular sentiments against fiscal debt seem to have nurtured during the 1980s (Reagan-Thatcher era) and matured during the fiscal crisis period of the 1990s. That is why the political economy in Canada, like other advanced economies, has a visible bias in favor of monetarism-based economic management. The same bias has been witnessed in the aftermath of the great recession of 2008 to fight the slow recovery in these economies.

Bank of Canada has anchored its monetary policy at the inflation targeting framework since 1991. Inflation has been mostly low and stable as targeted after the adoption of this framework. Therefore, there is hardly any review of the macroeconomic consequences of it, and accordingly, any question about a possible change with regard to it. This study fills the gap and questions the role of monetary policy in general and inflation targeting in particular in Canada with the help of important issues revolving around it. The present study will have two main parts. The first part will describe the monetary policy of Canada in retrospect to see how it established its roots and took shape as it is now. The second part will detail the major issues relating to Canada's monetary policy (especially inflation targeting), leading the discussion towards the need as to why it should be changed now. And at the end, concluding remarks from the analysis will be presented.

Part 1. Canada's Monetary Policy in Retrospect

Canada experienced the golden years of economic expansion based on investment and consumption growth, like its peer nations, during the quarter-century of the post-WWII period. The welfare state was emerging and establishing its roots. On the trade front, GATT (effective in January 1948) was working to liberalize trade by removing protectionism of the post-depression years of the 1930s. The first oil price shock of 1973 became a turning point, reversing the momentum of expansion to stagflation. However, Keynesianism that swayed the first quarter-century after World War II could not provide solutions to the stagflation. A paradigm shift took place from fiscal policy to monetary policy as a solution to the then economic difficulties during the 1970s.

In 1975, the aim of restraining inflation led the Bank of Canada to adopt a target for the growth of M1, a narrow monetary aggregate[1], and the Canadian federal government to create the Anti-Inflation Board (AIB)[2]. With the adoption of the monetary growth target, it was hoped that once the M1 growth target was met it would gradually squeeze inflation out of the system. However, monetary growth targets were achieved, but inflation could not be controlled, so monetary targets were abandoned in 1982.[3] And from 1982 until the introduction of inflation targeting in 1991, monetary policy was carried out with price stability as the longer-term goal and inflation containment as the shorter-term goal, but without intermediate targets or a specified path to the longer-term objective.[4]

The second oil price hike of 1979 led to the next round of inflation worldwide, and then came the rate of interest increases under the monetarism to control the high rates of inflation.[5] In Canada, the inflation rate peaked at 12.5 percent in 1981[6], and with that policy rate also reached its maximum peak at 21.24% in early August 1981[7].

At the global level, the monetary tightening of the late 1970s and early 1980s led to several long-lasting consequences. One was the severe recession of 1982. One more was the exchange rate troubles of the 1980s and the global external imbalances, which led to the Plaza Accord in September 1985 and then the Louvre Accord in February 1987[8]. Another consequence has been the paradigm shifts in the economic thought and world trade, which still continue till date: influence of Thatcherism and Reaganism in economic thought since the first half of the 1980s; and influence of hyper-globalization[9] on world trade since the second half of 1980s. Yet another consequence was the infamous debt crisis in the developing world, initiated by the Mexico (in August 1982), that led to the Washington consensus[10] and its neo-

[1] Powell (2005), p. 74.
[2] Anti-Inflation Board (AIB) monitored movements in prices and wages until 1978, and it had the legal power to regulate the price and wage decisions of large businesses. Charest and White (2015), p.12.
[3] Powell (2005), p. 74.
[4] Thiessen (1998), p. 3.
[5] Keynesian theory had no appropriate policy responses, while Friedman and other monetarists recommended control of the money supply as they found high rates of inflation were due to rapid increases in the money supply. In 1979, Paul A. Volcker, who became chairman of the Fed in the US, restricted the money supply (in accordance with the Friedman rule) to control inflation and succeeded. On the other side of Atlantic, Margaret Thatcher was elected prime minister in 1979 in Britain who implemented monetarism as the weapon against rising prices, and succeeded in halving inflation. Jahan and Papageorgiou (2014).
[6] Charest and White (2015), p.13.
[7] Powell (2005), p. 77.
[8] The Plaza accord was to drive the appreciating US dollar down and the Louvre accord to keep the depreciating US dollar from falling further.
[9] UNCTAD Trade and Development Report 2018 characterized the post-1986 period with hyper-globalization. (p.40). As elasticity of world trade to global output (ratio of trade growth to GDP growth) peaked at 2.4 during the 1986-1998 period, remained around 2 during 1998-2008 and around 1.3 during 2008-2016 (after the global financial crisis). It was around 1.5 during the golden age of 1950-73 and around 1 during difficult years of 1973-86. (Data source: figure 2.1.B) UNCTAD (2018), p. 37.
[10] Hurt (2015).

liberal agenda (in the form of liberalization, privatization, and globalization) to the development. On the domestic front, Canada, too, underwent the recession of 1982 and the exchange rate difficulties of the 1980s[11], and also a wave of economic reforms around that time.

The Canadian monetary policy remained neutral from the mid-1980s up to 1987.[12] By that time, monetary conditions were eased in Canada (as in the US), and also inflation pressure was reduced (inflation rate was about 4 percent in Canada by early 1987).[13] However, from 1988 overheating and inflationary pressure started building up again owing to a number of factors like rebound in commodity prices, expansionary fiscal policy at both the federal and provincial levels, and positive investor reaction to the Free Trade Agreement (FTA)[14] with the United States.[15] This time around, the Mulroney government seemed busy handling other reforms involving deregulation, privatization, major tax changes, free trade, and so on.[16] And Bank of Canada took charge of monetary policy, including its goals and instrumentation.[17] It set out to pursue single-mindedly the objective of inflation reduction, that seemed "praiseworthy to some and noxious to many" at that time too.[18] The aim was to bring price stability[19]; however, no number and timetable were specified at that time.

The tightening monetary policy directed towards inflation control since 1988 had an important and "controversial"[20] legacy with regards to macroeconomic management[21], hence needs some extra emphasis. To achieve its objective, the Bank set its short-term interest rates too high. Canadian short-term rates, which usually stayed close to the US rates (higher but by a margin of a percentage point or two) risen progressively to some 5

[11] It weakened sharply against USD in the first half and then saw a strong recovery in the second half. Powell (2005), p. 76.
[12] It was paying some attention still to the exchange rate, but not much else. Maybe perhaps because the Bank was coping with the fallout from the twin failures in 1985 of two small Western banks, the first such event in Canada since 1923. Crow (2009), p. 6.
[13] Crow (2009), p. 6.
[14] FTA was signed in 1988.
[15] Powell (2005), p. 79.
[16] Fortin (2001), p. 118.
[17] Crow (2009), p. 7.
[18] Ibid., p. 6.
[19] "… as far as the Bank was concerned, "price stability" would be distinctly less than 4 percent inflation (where we had started) and that zero inflation was not being ruled out." Ibid., p. 7.
[20] Devereux (2008), p. 7.
[21] Fortin uses the usual three-step "transmission mechanism" of monetary policy to explain the role played by tightening monetary policy (as early as in 1988) in the events of the 1990s. First step led the increase in the short-term interest rate which also appreciated the Canadian currency. Second step led both aggregate spending and output to depress on account of lower consumption, investment and exports; lower sales and profits then induced firms to reduce output and employment. The third step led both wage growth and price inflation to decline as weaker profits and higher unemployment induced firms and workers to be more prudent in setting wages and prices. Fortin (2001), pp. 114-115.

percentage points higher than the US rates by the end of 1990.[22] It led to the "monetary overkill"[23]; which caused the full-blown economic and fiscal crises in Canada, besides the appreciation of the Canadian dollar[24]. Inflation got reduced, but the real economy suffered[25] hugely from the fall in output and employment[26], 'made in Canada' recession[27], and an explosion of debt servicing cost[28] of high debt[29] that led to the fiscal crisis of the 1990s.[30]

Then came the inflation targeting in February 1991. It was perhaps not introduced as a long-term or permanent monetary policy framework as it has become now; however, price stability is anyway assumed to be one of the primary objectives of monetary policy anywhere. As Gordon Thiessen[31], former Bank of Canada Governor (1994-2001), in the Gibson Lecture mentioned:

> "The key objectives of Canada's inflation targets, when they were originally announced in 1991, were to prevent inflation from accelerating in the short run in the face of the introduction of the new Goods and Services Tax (GST) and a sharp rise in oil prices and, in the longer run, to bring inflation down to a level consistent with price stability."

Also, as insider-viewpoint suggests that "the government … was thinking of something rather short term."[32] However, inflation targeting has now become a permanent operating framework[33] while creating a credible comfort zone for the Bank of Canada that it does

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[22] Crow (2009), pp. 7-8. Similarly, Fortin (2001) finds "In the seven-year period 1989-95, the Canadian rate exceeded the US rate by an unprecedented margin of 3.12 percentage points on average." (p. 116).
[23] Fortin (2001), p. 118.
[24] "Through 1990 and most of 1991, the Canadian dollar climbed against its U.S. counterpart (and against major overseas currencies). This was largely due to a further tightening of monetary policy within the context of inflation-reduction targets announced in February 1991, and widening interest rate differentials that favoured Canadian instruments." Powell (2005), p. 79.
[25] Deputy Governor Freedman of the Bank of Canada seemed to admit: "Although the consensus forecast at the time was for a soft landing of the economy, the downturn in 1990-91 was much deeper than had been anticipated, the rate of inflation came down much faster than planned, and the recovery was slower than expected." Quote taken from Fortin (2001), p. 116.
[26] The economy began to soften in 1989, when sharp cutbacks in manufacturing led to a levelling off of real GDP growth at around 0.3 percent per quarter, however employment joined all the other decelerating economic indicators after the second quarter of 1990. Cross and Bergevin (2012), p. 20.
[27] "Canada slipped into a recession in 1990; this was a 'made in Canada' recession, since the US and other countries were still growing." Devereux (2008), p. 7.
[28] "… ratio of debt service to GDP reached at an all-time high of 6.6% in 1990." Matteo (2017), p. 15.
[29] "… the dire financial consequences of higher interest rates interacting with the large accumulated debt." Fortin (2001), p. 118.
[30] "It is arguable that the explosion of debt-service costs, the deep and protracted recession, the drop in fiscal revenue, the rise in social expenditures, rising risk premiums, unsettled financial markets, the constraints on the central bank's ability to ease monetary conditions, and the sharp fiscal retrenchment were all initiated by the high interest rates the Bank of Canada had begun to set as early as in 1988." Fortin (2001), pp. 117-118.
[31] Thiessen (1998), p. 2.
[32] Murray (2018).
[33] "Over time, the importance of other favourable characteristics of inflation targets as a permanent operating framework for monetary policy has become increasingly apparent to us at the Bank of Canada.

not want to leave this framework even if it is killing the real economy of Canada in multiple ways. It has driven policy rate to remain low for an extended period which has made Canadian macroeconomy highly susceptible (to shocks) and constrained (owing to indebtedness) by amassing financial vulnerabilities with overleveraged household sector, underinvested business sector, and overheated assets sector; yet maintaining price stability (of goods and services) in the economy at the same time.

Part 2. Canada's Monetary Policy and Important Issues

Inflation is no more a problem, economic stagnation and financial vulnerabilities are currently the major problems

The annual average inflation rate was 7.4 percent during the difficult period of 1973-90, that came down to 1.9 percent during 1991-2017 after inflation targeting. So, the urgent problem of high inflation for monetary policy to focus on during that time is no more a problem now. When there is not any problem with regards to inflation (as in almost any advanced economies), why to concentrate whole monetary machinery on that. Moreover, Canada's open economy and flexible exchange rate may also serve to stabilize the prices. Price stability can comfortably take one of the primary roles in Canada's monetary policy from the only and priority role. There are other more pressing important issues now, which require the central bank to pay attention.

Table 1: Inflation, Unemployment, GDP, and Investment Rates (Annual Average Percentage) during 1961-2017, Decade-wise except during 2011-2017 years

	1961-1970	1971-1980	1981-1990	1991-2000	2001-2010	2011-2017
Inflation Rate	2.7	7.6	6.4	2.2	2.1	1.6
Unemployment Rate	4.9	6.9	9.4	9.4	7.1	7.0
Gross Domestic Product at Market Prices (2007 constant prices) Growth Rate	5.4*	4.1	2.7	2.7	2.1	2.2
Gross Investment Growth Rate	9.3*	14.2	7.5	4.5	5.4	3.6

Note: *1962-1970
Sources: Following Statistics Canada Tables (see details in the bibliography) are used to calculate the rates: Inflation Rate: Table 326-0021; Unemployment Rate: Table 14-10-0018-01; GDP Growth Rate: Table: 36-10-0369-01 (formerly CANSIM 380-0106); and Gross Investment Growth Rate: Table: 36-10-0111-01 (formerly CANSIM 380-0071).

Table 1 makes clear that despite the low and stable inflation rate following the inflation targeting in 1991, real GDP and investment rates have stabilized at lower levels than the

The most notable of these characteristics are increased transparency, better accountability, improved internal decision-making, and a mechanism for responding to demand and supply shocks that reduces potential fluctuations in output." Thiessen (1998), p. 2.

1960s, 1970s, and 1980s. Perhaps it was the NAFTA-effect during the 1990s (the only decade after the introduction of inflation targeting) that it saw the same 2.7 percent real GDP growth rate as the preceding 1980s (which itself was quite low than the previous two decades). However, afterward, it stabilized at even lower rates. The entire post-inflation-targeting period could not touch the investment rates achieved prior to it. The unemployment rate has also been stabilized at a higher level during the inflation-targeting era, even if two decades, one each preceding and succeeding the inflation targeting, with exceptionally high 9.4 percent unemployment rate, are excluded. Also, mere unemployment rates do not reveal much about the deteriorating job-quality of the employed Canadians in recent years, e.g., increasing precariousness. Anyway, it is apparent from Table 1 that though inflation targeting has achieved its objective of low-&-stable inflation, but Canada's overall economy has been facing economic stagnation or better to say economic decline under this monetary framework. Unquestionably both GDP growth and investment rates have settled at a lower level, and unemployment rates have at a higher level during the post-inflation-targeting period as compared to those prior to it in Canada.

De-industrialization, gig economy, and increasing manufacturing trade-deficit are unintended consequences, maybe partly and indirectly, of this monetary framework (detail will be in the forthcoming points). Things are not stopping here; there are more challenges ahead. Slow recovery and increased uncertainties in the global economy in the aftermath of the 2008 recession, as well as renegotiated NAFTA[34], and declining auto sector are the new realities that the Canadian economy is facing. Another nerving issue is what will happen when quantitative easing (QE) is reversed, and rates of interest rise to the neutral rates internationally. Not to forget, these non-conventional monetary tools are in use to revive the economy in the major economies, e.g., US, EU, UK, when conventional monetary tools were already exhausted. Therefore, there are more global risks and threats than ever. Even domestically, low interest rates since inflation targeting in Canada has not helped the economy to achieve higher prosperity instead have made it an asset-dependent and debt nation (the financial vulnerability aspect will further be analyzed in the next two points). All this discussion plainly points to an urgent need to review the current monetary policy and focus on the contemporary problems.

Bank of Canada mentions the objective of monetary policy on its website as:

> "The objective of monetary policy is to preserve the value of money by keeping inflation low, stable and predictable. This allows Canadians to make spending and investment decisions with more confidence, encourages longer-term investment in Canada's economy, and contributes to sustained job creation and greater productivity. This in turn leads to improvements in our standard of living."

[34] NAFTA will be replaced by USMCA (United States-Mexico-Canada Agreement) following the completion of TPA (Trade Promotion Authority) procedures, including a Congressional vote on an implementing bill. Source: USMCA Website.

Should not the Bank of Canada question itself and review its policy in general and inflation targeting framework in particular if it is not encouraging "longer-term investment in Canada's economy" and not contributing to "sustained job creation" and also not leading to improvements in the "standard of living" even while "keeping inflation low, stable and predictable"?

The low interest rate regime has not induced real economy investment, instead has made Canada a debt-nation and asset-dependent economy

There are three intertwined aspects with respect to the impact of the low interest rate regime led by the low inflation: stagnant business investment, inflating assets, and mounting debt. These three aspects correspond to the real and financial aspects of the economy. In theory, a sound financial sector should function to facilitate the real economy's growth. However, the Canadian financial system has worked opposite in practice, as its dynamic has been killing the real economy, perhaps.

As mentioned above already, that investment rate is lower after the inflation targeting. Even the low rate of interest is not encouraging businesses to invest in the real economy. When almost unidirectional ever-inflating financial and real estate assets can give better rates of return on an investment, a rational investor might not like to go for comparatively riskier and low-margin investments where prices can move in both the directions (generally declining, if tradables). Unfortunately, low profit margins on the productive investments may not even be able to afford sometimes the increasing rentals on the expensive commercial real estate. Maybe that is why the empty office-spaces or sometimes ghostly shopping malls as against increasing SOHO (small office home office) and gig economy entrepreneurs working from basements/homes have become a new normal now. Over-financialization has perhaps resulted in an under-performing real economy. Assets' higher returns have perhaps driven out investment from the real economy. The third aspect of the low rate monetary regime has been a mounting debt. Per capita GDP has grown (about two times) from $25,079 in 1990 to $58,521 in 2017, whereas per capita total debt reached (about four times) from $51,581 to $204,878 during the same time (Table 2). Does it not speak for itself how Canada has become a debt-nation? When income is not increasing as fast as to finance the required expenditure, national debt to increase the effective demand to sustain the economy becomes an urgency, and so as the expansionary monetary policy with the low interest rates.

That is why current economic complexity has left the Bank of Canada with (at least) three dilemmas of late: one, it has to keep policy rate low to fight the economic sluggishness even if it is ballooning the debt level and fueling the real estate and other assets' markets; two, if it tries to control the household debt-accumulation, there is no required effective demand forthcoming from the investors and exporters (and also from the fiscal sector given its own limitations) to pick-up the economy; and three, if it blows the assets' bubble,

the Canadian financial sector and the whole economy will land where no one wants (systemic-contagion and hard-landing).

Table 2: Canada's Per Capita GDP and Debt During 1990-2017, Selected Years

	1990	1994	1999	2004	2009	2014	2017
Per Capita GDP	25,079	27,262	33,077	41,731	46,674	56,082	58,521
Per Capita Total Debt	51,581	64,501	79,907	95,350	137,627	171,975	204,878

Sources: Following are the Statistics Canada Tables used to calculate per capita GDP and per capita Total debt (See References for the details of the tables):

GDP: Table: 36-10-0104-01 (formerly CANSIM 380-0064);
Debt: Table: 38-10-0234-01 (formerly CANSIM 378-0122); and
Population: Table 17-10-0009-01.

Financial instability amid price stability has been putting the whole economic system's stability at risk

An ugly beauty of the inflation targeting is that alongside the over-leveraged financial system and over-exposed economy (with inflated assets and debt-bias), price stability has amazingly been achieved by Canada. Inflation targeting has stabilized one set of prices (of goods and services), but inflated another set of prices (of assets, including real estate) which unfortunately not captured by the consumer price index. What a bad magic of the low-inflation and the low-rate monetary policy inflation-targeting regime! To bring this aspect into structural and systemic (risk) context: more than a third of Canada's private economy is made up of the real-estate related activities, construction and financial industry in 2017 (35 percent of the total private sector; by the way, the private sector accounts for 80 percent of the total economy).[35]

Economic stability and structure of the economy are not separable

Stability-needs arise from within the structure itself, which does not always remain the same. At least, given the very Canadian structure of the economy, inflation poses no instability threat at present. It is high time that inflation targeting to be replaced by other severe instability issues into monetary framework consideration. About a quarter-century during the post-WWII years was a prosperous time when advanced nations were industrializing, business sentiments were upbeat, labor was short, wages were rising, real economy was the main source of economic activity, and financial markets normally corresponded the real economy's activity. Then came the 1970s, and with it, at least, two decades of high and volatile prices. In fact, advanced economies were already coping with high prices from the mid-1960s. Policy-need, from the high and volatile prices of the 1970s and 1980s, was to bring the price stability for the structure to run smoothly. So, inflation targeting in 1991 was the policy outcome.

[35] Calculated from the Statistics Canada. Table: 36-10-0401-01 (formerly CANSIM 379-0029).

Then came the globalization, financial liberalization and innovations, and technological advancement starting from the 1980s and 1990s, which have still been continuing. These changes have turned the economic structure of Canada and other Western countries forever. Economic activities have been shifting away from industrial to financial, manufacturing moving to factory Asia, production becoming from mechanical to more intelligent-mechanical (automation, artificial intelligence, robotics, 3D printing, etc.), relative prices (prices, wages, interest rate) being determined globally, increasing debt, and consumer price index leaving out a major chunk of economic activity. Some of the socio-economic consequences in these economies have been: the vanishing industrial sector, inflating assets & debt, rising gig economy, increasing manufacturing imports, deteriorating job quality, disappearing middle class, and growing income inequality (job-levels as well as inter-generational). All these structural changes have been indicating the effective-demand-deficiency, which has already been on for quite some time contributing, maybe partly, to the low-rate and household debt build-up. Now Bank of Canada has to invent its stability role where consumer price inflation is not a threat, thanks to the deficient effective demand[36], cost-saving technologies, and cheap imports. There have been different structural problems inflicting the stability of the economic and financial system which the Bank has to focus on. Currently, threats to the macroeconomic and financial stability are: out-of-proportionate and ever-inflating financial and real estate assets; mounting national debt; over-leveraged financial system; over-financialization alongside under-performing real economy; disinflation of goods and services; and financial risks of climate change[37]. If price-stability is artificially separated from the stability of the structure (economy), where the structure is made on unstable (speculative) financial foundations – crises are bound to happen, disrupting the whole economy even when price inflation does not pose a threat. For example, the inflation rate generally hovered around 3 percent in the US during the decade of the 2000s, and yet two crises crashed, led by stock-market in 2001 and by real estate in 2008.

Demand-shock vs. supply-shock and effectiveness of inflation targeting framework

Theoretically, inflation targeting seems to work well when there is a demand shock. But when there is a supply shock, it does not seem to work quite well.[38] For example, if a rise in cost is due to supply-shock, say productivity decline, it will shift the supply curve leftward raising price and reducing output. Contractionary stance, to control rising prices, under the inflation-targeting framework, in that case, would work to suppress the real

[36] Especially if debt is excluded.

[37] How wild-fires have bankrupted the California-based utility company Pacific Gas and Electric (P.G. & E.) is the latest example of the climate-related financial risks. See detail of above example in 'The New Yorker' piece by Kolhatkar (2019). Other reports on the subject are: World Economic Forum's annual Global Risks Report of 2019 (which finds environmental hazards as the greatest threat of the year in its survey report); and the FRBSF Economic Letter by Rudebusch (2019).

[38] See McKibbin (2015) for this viewpoint.

economy even more. As a result of a negative supply shock, like an increase in input prices (say oil or other primary or agricultural commodities), real GDP will become more volatile as contractionary monetary policy stance will curb output more than the initial shock alone. Memories of the 1982 recession are still not forgotten. Present-day economic problems are caused by global, technological, financial like factors. As the real economy's stagnation is caused by de-industrialization, cheap imported products, lack of domestic price competitiveness, technological advancement[39], and overwhelming assets' economy. Neither expansionary monetary policy is helping the real economy nor price stability under inflation targeting is providing stability to the financial and economic system. There is a dire need to review the monetary policy priorities to cater to the contemporary needs under current economic circumstances.

Resource economy and debatable policy-role

Canada has escaped many adversaries, which the neighbor in the South and other economies have suffered. The stock market meltdown of the early 2000s and financial crisis of 2008 are the latest to recall. Therefore, this may not be the monetary-policy-led economic management; instead, it is perhaps the global hunger for resources that seemed to have saved the economy time and again. For instance, currently, the US economy grew at 2.9 percent in 2018[40]; however, Canada had to contempt with lackluster economic performance with 1.8 percent over the same period[41]. Why? Perhaps its resource luck, which saved it from the last decades' financial tragedies, is not doing any favor this time. Unfortunately, the resource-based economy itself is in turbulence, especially because of China's rebalancing and US trade war with other countries.

Whether one likes to link to the 'Dutch-disease' phenomenon or something else, this sector's effect of pro-cyclability and associated exchange rate fluctuations on other sectors' performance, because of changing export-competitiveness and import prices, cannot be ignored. For example, around the opening years of the 2000s, dent on manufacturing, maybe partly, owing to appreciation of the Canadian dollar, is not an event of a forgotten past. Canada (and/or Alberta) could have worked differently by using this onetime resource-income prudently into a designated capital-fund, like Norway, as this makes an economic sense for the region and also the entire economy (Alberta Heritage Savings Trust is considered too small for that matter).[42] Whether it is federal or provincial government, it certainly shows a lack of budgetary prudence. Budgetary prudence could have saved Alberta not only from its current fiscal mess but also saved exhaustible-resource-dividend for the future generations.

[39] Causing the job redundancy.
[40] US Bureau of Economic Analysis (2019). Table 1.
[41] Statistics Canada (2019). Table 6.
[42] Guilbeault et al. (2013)

The cheap financing and low pressure on political economy to economize onetime resource-income may also be a corollary of main Canadian policy-choices, e.g., too much reliance on monetarism and its low rates expansionary regime during the post-inflation-targeting period. The Bank of Canada could have been more innovative to have worked on the resource-led exchange rate fluctuations to shield the health of other sectors, especially manufacturing. Perhaps central bank's solely focus on the inflation stability has seemingly let it underperform in guarding the instabilities in other sectors and overall health of the economy from these fluctuations. Resource economy could have otherwise become a source of diversity, jobs, hedge against fluctuations, and long-term prosperity.

Monetary policy sets the macro price level and not the micro relative prices is not always true

Theoretically, it is the inflation rate, i.e., the aggregate (macro) price level, which inflation targeting attempts to influence with its expansionary or contractionary stance. And as the theory goes by, the micro-level relative prices are said to be policy-rate neutral as these are assumed to be determined by the demand and supply conditions of individual products. But what if the policy rate stance influences the relative prices differently, directly or indirectly? In that case, relative prices would be interest elastic too. Implicitly, changes in policy stance will affect different economic activities and sectors differently.

For example, the expansionary policy stance has different impacts on the products with relatively inelastic supply (e.g., commodities, real estate, etc.) than the products with an elastic supply. To the extent, policy rate action influences the constrained-led price fraction; it is definitely the policy-driven relative price. Another example is the variable financeability of the products and their relative demand and, consequently, the relative prices; some products can be financed and others not. For instance, accommodative policy rate facilitates cheaper credit for say auto, other durable goods, real estate, financial assets, etc. Therefore, it leads to increased demand and higher prices relative to other products that cannot be financed. Yet another example may be the influence of interest rate on the exchange rate and consequent relative prices of foreign products and foreign finance. Policy rate changes affect the product prices with a lag, but the effect on the exchange rates is always ahead than that. These are some examples where the relative effect of the policy stance on the different types of goods is different. So, saying that policy rate effects are relative-price neutral is not absolutely true. Also, implicitly, that the policy-rate changes have a symmetrical effect on all the economic activities and sectors is untrue. As there are so many factors characterizing various activities and sectors, and henceforth respond differently to the changes in policy rates, e.g., speculation, mechanization, substitutions (of final product and inputs), profit margins, wage-price flexibility, specialization, risk-element, foreign-competition, export or domestic market, import content, inputs' supply conditions, demand/supply elasticity, price-expectations, etc. Therefore, the effects of policy-rate changes cannot be symmetrical for

all the economic activities and sectors. That is why perhaps some sectors grow out-of-proportion, some sectors do not grow, and some sectors even decline with the policy rate changes.

A visionary central bank should not delimit itself with a single goal; there are central banks pursuing multiple goals too

'One instrument, one goal' might have made Bank of Canada's economic modeling easier. But unfortunately, economic realities are not bound by the system of model-equations and also the philosophy of any central bank. Moreover, there are countries where central banks have been conducting monetary policy with more than one goal, e.g., the US and Australia (at least not less successful than the Canadian central bank!). The Bank of Canada might gain credibility for not missing its inflation targets. However, getting narrow mandate and then focusing all energy achieving it might be assumed as underperformance when it can, in reality, do much more. This is especially serious when this mandate, as well as its achievement, have made the economy not only vulnerable but also stagnant. The central bank is assumed to be a proactive, creative, independent, and a leading visionary institution in any nation. Also, efficient macroeconomy management requires policy-independence and certainty, especially in uncertain times like currently prevalent. A central bank can better provide these than the politics-led fiscal policy, which keeps changing almost every election cycle along the party-lines. Therefore, it is more responsible to make goals based on contemporary national economic needs to serve its real institutional purpose by utilizing its intellectual resources and monetary apparatus.

Concluding Remarks

Canada's political economy has a visible bias in favor of monetarism-based economic management currently. The inflation-targeting framework has dominated the Monetary policy landscape since 1991. As inflation has been mostly low and stable as targeted after the adoption of this framework, there is hardly any question-mark on the macroeconomic consequences of it. However, the present study questions the role of monetary policy in general and inflation targeting in particular in Canada. And with the help of important issues related to the monetary policy, the study concludes that it is high time for a change in the monetary policy of Canada.

The real economy has been stagnant after the inflation targeting. Assets prices, especially of real estate, have been spiraling, and debt has been mounting to the dangerous levels. These are pushing the (over-leveraged) financial system and thus the entire economy (overexposed with inflated assets and debt-bias) into instabilities while maintaining the inflation stability at the same time. Financial vulnerabilities are creating several constraints on the Bank of Canada that it has to make undesirable trade-offs in the

economic management. For example, it has to keep the policy rate low to fight the economic sluggishness, even if it is ballooning the debt and fueling the real estate and other assets' markets. When the real income does not grow enough to finance the required expenditure, national debt becomes a necessary evil to finance the effective demand to sustain the economy, and so as the expansionary monetary policy with the low interest rates. Therefore, under the present monetary policy framework, neither the prices of consumer goods and services represent the whole price structure of the nation, nor the price stability has provided stability to the financial system as well as to the macroeconomy and nor the low rate regime alongside the price stability has helped the real economy from the secular stagnation.

There are systemic issues that are putting relatively high stability pressure than the inflation on the economy and need to be focused now by the monetary policy. The Canadian real economy is facing challenges from the low investment, cheap imported products, lack of domestic price competitiveness, technological advancement, and overwhelming assets' economy. There is a dire need to review the monetary policy priorities to cater to the contemporary challenges under current economic circumstances. Monetary policy needs to re-invent its priorities dynamically to remain an indispensable and relevant institution of the macroeconomic management.

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