

# IS-LM Analysis of Canada's fiscal and monetary policies

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**Abstract:** *This paper explores the trend of fiscal and monetary measures adopted by Canada over the years. The paper intends to state, evaluate and analyze these fiscal and monetary policies and make an attempt to bring to light the rationale behind them. The dynamic economic, social and political scenarios prevalent in a country are the driving force behind policy decisions, hence we will look at the policies implemented by Canada to strike a balance in the economy and to promote growth and well-being of the country. The paper primarily aims to study and analyze the effect of these policies on the IS-LM model which shows the interaction of fiscal and monetary stance and hence gives the short-run equilibrium between interest rates and output and evaluates economic fluctuations to suggest potential for appropriate stabilization policies. It also attempts to suggest viable policies and measures that would further help the country progress.*

**Key Words:** *Canada, IS-LM Analysis, Economic policies.*

## 1. INTRODUCTION:

Canada's economy has been supported by solid principle of law and strong institutional establishments of an open-market framework. It is positioned first among 32 nations in the Americas locale, and its general score is well over the local and world midpoints. Being the 11th largest economy in the world, based on nominal Gross Domestic Product, the country is the member of both the Organization for Economic Cooperation and the Group of Seven, It is considered one of the most stable economies in the world.

The country's government is emphasizing on diversifying trade, promoting exports and supporting private companies and local enterprises that are affected by protectionism. It has adopted an expansionary monetary approach, which has resulted in a significant increase in business investment. While gradual monetary tightening by the national bank has kept inflation in check. Canada's sound economy has been supported by strong institutional establishments of a free market system and a high level of administrative proficiency. The independent judiciary protects property rights and maintains the standard of law. It is also pushing ahead with massive infrastructure spending, including through a proposed infrastructure bank, and accelerated growth rates are enhancing government revenue. Top tax rates have gone up nationally and in some provinces, but the government has been forced to scale back small-business tax reform in the face of strong opposition.(1)

## 2. BACKGROUND:

In Canada during the 1980s, both the government and the provinces were keen on utilizing tax reform to create better incentives for the nation's work force. In a recent report, by the Economic Council of Canada the need for better co-ordination between tax and transfer policies and the achieving the objective of high employment is argued. In 1984 the Québec government provided a White Paper on the Personal Tax and Transfer System, with the objective of expanding work incentives while protecting the unemployed and those who are unable to work. In June 1987, government Finance Minister, presented a White Paper on Tax Reform, intended to promote parity and simplicity in the tax system by eliminating a significant number of the tax exemptions and deductions previously permitted on business and personal incomes.

## 3. LITERATURE REVIEW:

Canada needs a strategic plan for long-term economic growth—one that includes a competitive tax system that encourages effort, saving, investment and risk taking by businesses and individuals. Recent studies on Canadian policy implementation have shown that being a small economy, Canada has developed technically as well as economically over the last decade (2).

In a book written by JD Whyllians, they have found that the impact of U.S. interest rates on investment, GNE, employment, productivity, and government debt is less severe in a pure floating exchange rate regime, compared to the managed floating system. Their result showed how the impact of U.S. interest rate policy on the Canadian inflation rate is worse in the case of flexible exchange rate regime. Even though real income and inflation are less favorable in both cases, indicating a trade-off between output growth and inflation.(3)

Another research by OECD in their ‘Better policies series’ included recommendations on how Canada should improve their policies in favor of their citizens. The research suggested to connect the open government data policy to overarching public sector modernization strategies to ensure it contributes to the overall digital transformation of the public sector. And to improve target policy co-ordination and dialogue between the three levels of government to productivity and competitiveness priorities.(4)

Bank of Canada has described their economic situation in a subtle manner. Their research paper examines 12 public and private sectors units, which have very different nature and structure. They concluded that inflation is determined by price adjustments in response to inflation expectations and by factor disequilibrium in labor or product markets. In their money matters paradigm, inflation is mostly determined by movements in monetary aggregates, in which the money gap disequilibrium between the money supply and the estimated long-term money demand influences inflation, while still allowing a role for the output gap, and the LM, in which rigidities in adjusting money balances are the main source of the short-run non-neutrality of monetary policy.(5)

From the preceding detailed literature in the field of economics analysis on Canadian policies there are some gaps that have been observed, which include the lack of deriving the IS-LM theory in detail and ignorance of some micro variables. This paper endeavors to delineate monetary and fiscal policies adopted in the country and understand the basic nature of them and analyze them through the IS-LM model.

#### **4. OBJECTIVES:**

This paper explores the trend of fiscal and monetary measures adopted by Canada over the years. The paper intends to state, evaluate and analyze these fiscal and monetary policies and make an attempt to bring to light the rationale behind them. The dynamic economic, social and political scenarios prevalent in a country are the driving force behind policy decisions, hence we will look at the policies implemented by Canada to strike a balance in the economy and to promote growth and well-being of the country. The paper primarily aims to study and analyze the effect of these policies on the IS-LM curve and evaluates economics fluctuations to suggest potential for appropriate stabilization policies. It also attempts to suggest viable policies and measures that would further help the country progress.

#### **5. METHODOLOGY:**

Secondary data was procured from Bank of Canada, Canadian chamber of commerce, government of Canada website, along with websites of organization for economics corporation and development and Canadian encyclopedia. Along with these research papers, reports, books, and articles were also referred.

This paper uses IS-LM model to graphically analyze the characteristics of the Canadian economy that helps to determine the effectiveness of monetary and fiscal policy and how they can affect economics activities.

#### **6. FISCAL POLICIES:**

The Canadian economy is characterized by a high fiscal deficit, the country has a history of getting trapped in its national debt and each economic recession over time has worsened the situation and consequently perseverant efforts are made to come out of this debt trap. This scenario repeated after the 2008 crisis, before the 2008 global recession the Canadian government reported its largest fiscal surplus on record, \$14-billion, in 2008. But deficits returned to the federal balance sheet the next year.

Less than three years ago, with very low growth and stubbornly high unemployment, the Government chose to invest in strengthening the middle class and growing the economy rather than implement austerity policies including spending cuts or tax increases. While talking about the last couple of years, with big deficits and economic uncertainty mean there is not much money for new programs or big announcements, but there is far more detail around previously announced policies and programs. In the budget of 2017 which was described as a cautious “wait-and-see” budget where the government is looking at potentially radical changes south of the border. Under the fiscal measures in 2017 capital gains inclusion, dividends and stock options were definitely under the gun, efforts were made to ensure we have a competitive business tax and regulatory environment in Canada as businesses generate jobs. They are the mainstay of prosperity for the middle class—and for all Canadians. The only major change was the removal of the public transit tax credit and an increased tax on alcohol and tobacco.(6)

Budget 2018 primarily focused on spending—new spending initiatives and enhanced spending for programs that aim to support low-wage Canadians, address gender inequality, support First Nations development, strengthen indigenous rights and self-determination, promote skills and research, improve health and environmental stewardship and enhance justice and security.

The government tightened tax rules and clamping down on tax avoidance. It focused more intently on bringing its books back to balance and creating a tax and regulatory environment to support business investment and economic growth. The budget projects the federal debt will increase by almost \$80 billion over the next five years, although the government’s debt-to-GDP ratio is expected to decline slightly, thanks to continued strong economic performance.

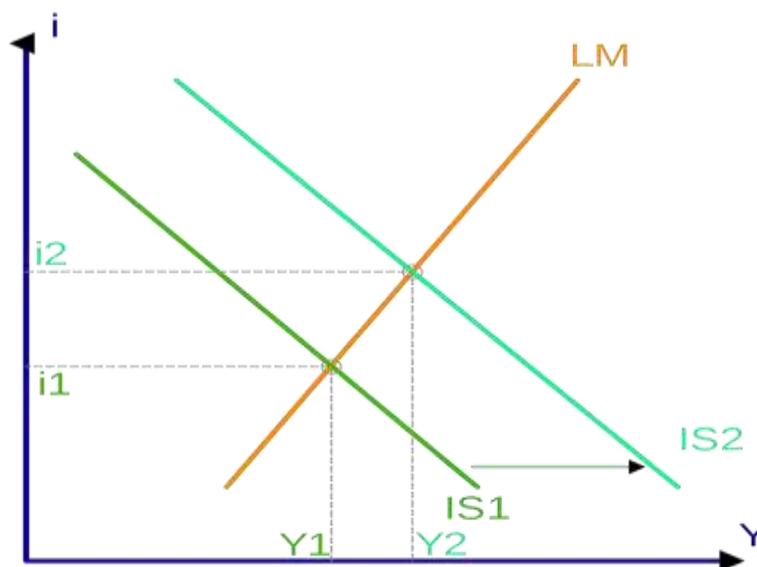


Fig 1.

Thus fiscal measures in Canada over the last few years have focused on increasing efficiency of the government spending and well planned yet conserved spending to alleviate well being of all citizens. Taxation on personal income has more or less remained the same at 26%, while rigorous efforts are taken to improve tax collection for both personal and corporate and reduce evasion, in addition taxes on demerit goods are increased. Since the inflation rate (1.92%) is controlled effectively by monetary policies the government intends to focus on increasing the growth and hence intend to have an expansionary fiscal regime but their high amount of deficit allows them to only do it in a controlled manner.

Thus the figure alongside shows the effect of expansionary fiscal policy regime of Canada on the IS curve. The slow and conserved yet increasing government spending and stable taxation policies result in an increase in total planned expenditure thereby shifting the IS curve towards the right which raises both the level of income and rate of interest and hence the equilibrium. However the amount of shift in case of Canada is very less as spending is only increased at a very low rate.

## 7. MONETARY POLICIES:

It is often maintained that under flexible exchange rates, even a small open economy like Canada can conduct its monetary policy independent of its major trading partners, and that under flexible exchange rates economic disturbances originating outside. Canada can be absorbed by changes in the exchange rate, so that they do not have disturbing effects on the Canadian economy. However, in recent years (especially in the post-oil embargo period), we did see a high degree of synchronization in fluctuations in unemployment and inflation among the countries in the world. Of course, this is partly because the flexible exchange rate system we observe in reality is not purely floating, but a highly managed regime.

In spite of high unemployment and sluggish economy, in the last two and half years, the Bank of Canada has raised its lending rate several times (approximately 700 base points), in response to increase in U.S. short rates, caused by changes in U.S. monetary policy to support the U.S. dollar in the world money market. The alternative monetary policy is not to raise Canadian short rates, but to allow the Canadian dollar to vary in response to variations in capital flows caused by the narrowing of the U.S.-Canadian interest rate differentials. Being a small open economy, depreciation of the dollar would raise the prices of traded goods (exports and imports), resulting in a higher inflation.

Recently, the Bank of Canada increased its benchmark interest rate by a quarter point, The bank's rate is now set at 1.75 per cent. That's the highest it's been in almost a decade, dating back to December 2008. The Economist are expecting few more hikes in the rates as Canada is trying to control the inflation occurring due to US- interest rates. Over last 10 years there has been a progressive rate of increase in their interest rates, making 2018 the highest in the past decade.(7)

Since, Bank rates are increasing, the money supply in the economy is decreasing rapidly. Here, as LM curve relates changes in the interest rates to real change in the output of money supply, we can derive that money supply has decreased and so the LM curve has shifted to the left.

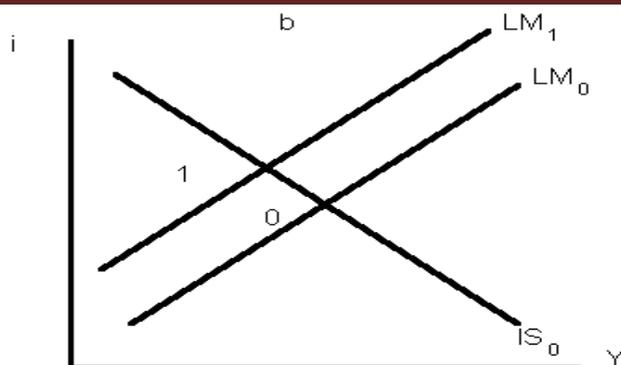


Fig 2.

( $LM_0$  has shifted to  $LM_1$ )

Here, we can see that as they reduced their money supply in the economy, the curve shifted towards the left showing a Contraction in their LM curve. Had the interest rates gone lower and money supply would have increased then the LM-Curve would show an expansion (rightward shift).

The government takes such monetary measures of reducing the money supply in the economy to control the inflation. Since, Canada is a developing country and USA economy has a lot of influence on its workings, the country has a lot of possibilities of facing inflation. As a result of which we can see many economist making assumptions of more hikes in the bank rates to arise in the near future.

In this situation the proportion changed in the rightward shift in the IS curve is lesser than the proportion changed in the leftward shift of the LM curve. The lesser expansion in the IS curve reflects the high fiscal deficit, the country is trapped in which doesn't allow them to increase government spending. Thus, they are trying to reduce the inflation rate by increasing the bank rate. This analysis gives us an insight of the situations prevailing in Canada and how the internal as well as external factors are effecting its policy implementations. To ensure that Canada's public finances remain sustainable we recommend that (1) the government should set out a clear test for when to run budgetary deficits that is limited to sustained economic contractions at the national level, (2) it should codify fiscal rules that reflect this test and serve as a fiscal anchor for long-term sustainability, and (3) the government should accompany any deficit with structural reforms that produce fiscal savings to help it return to a balanced budget and improve the functioning of the federal state.

**8. CONCLUSION:**

Canada needs a strategic plan for long-term economic growth—one that includes a competitive tax system that encourages effort, saving, investment and risk taking by businesses and individuals. The tax system should be as simple as possible to minimize administration and compliance costs. Fiscal policy must also focus on reducing government debt, as savings realized from lower interest payments would make room for budget initiatives that can improve its standard of living and quality of life. On the spending side, governments must improve the efficiency and effectiveness of government programs/services and focus on areas that enhance productivity and competitiveness.

It was realized that higher interest rates are certain to throw the government off its fiscal course—a 1% increase in the cost of borrowing alone translates into a \$3-billion increase in the federal deficit over a period of five years. But, what is even more of a concern is that the government now has very little room to respond to an economic slowdown or any other problem affecting the Canadian economy. The leeway it has enjoyed to reduce taxes and increase spending in an era of low interest rates is quickly coming to an end.

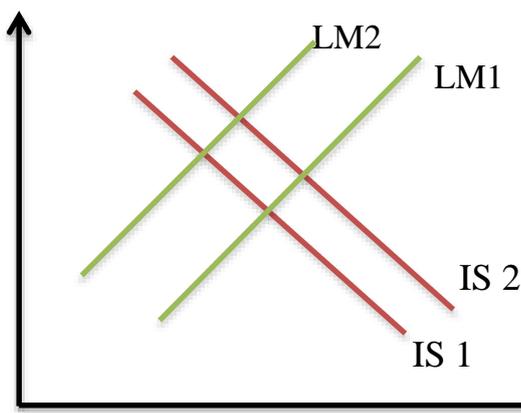


Fig 3

Also an unorthodox monetary policy has the power to change the size of the two wedges of the economy. If it can influence expected inflation, and change the nominal-real spread, the central bank can change the size of the first wedge (8). If it can influence the private-government spread, by buying private bonds, the central bank can change the size of the second wedge. If it can change the size of either wedge, it can affect aggregate demand even if it cannot shift the LM curve.

Hence, it can be concluded that Canada is still at the edge of covering its fiscal deficit. They are trying to improve the efficiency of their fiscal activities but due to the burden of the deficit, their government spending hasn't increased over the years. Thus the fiscal policies are at an expansionary rate but at a really slow level, giving a rightward shift in the IS-curve. Whereas, due to rising inflation and influence of the US-interest rates, Canada has increased their bank rate to its peak over the last decade. They are trying to curb the money supply in the economy, leading to a contraction and leftward shift in the LM curve. Let us show this situation through a graph;

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