International Financial Credit Crises; Lessons from Canada

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Abstract

The credit crises experienced in the US in year 2008 is labeled as perhaps the most significant crises since the great depression. The roots of the crises were found in the default of the sub-prime mortgages and the failure occurred in both the US and the UK. Due to the integrated nature of international financial systems the spillover impacted many countries as the economies in Asia and Europe were purchasers of the sub-prime mortgages that originated in both UK and US. The impact of the credit crises in Canada is of unique importance due to the close proximity to US, and both the US and Canada being of great strategic importance to each other as well as one of the largest trading partners. Even though the international financial credit crises adversely impacted many countries, the evidence that has come across recent years point towards the conclusion that Canada was able to weather the crises much better than many other countries.

JEL Codes: F23, N12, N22, N32, N42, O51

Keywords: Banking System, Canada, Country Study, Financial Credit Crises, MNC's, Regulations

Introduction

In the year 2008 the United States experienced a credit crisis that caused spillovers throughout the international credit market. The root cause that has been identified and that led to the credit crises, were substantial defaults on subprime mortgages. Consequently, this led to a chain of events such as a complete stop in housing development which in turn caused reduced spending and unemployment. Furthermore, the financial institutions that initially held the mortgages and the securities representing the mortgages reported huge losses. At the same time the financial institutions in the UK suffered major losses as well as they had held substantial investments in subprime mortgages. Institutions from both Europe and Asia were purchasers of the sub-prime mortgages that originated in the US and UK. Hence, due to the integrated nature of international financial markets, the weakening of the U.S. and U.K. economies set of a chain reaction and a contagion affect that impacted the economies of other countries. Therefore, there was a reduction in imports, a reduction in the availability of credit and hence a tightening in the credit market for MNC's. (Haltom, 2013)

The evidence that has come across in recent years is that Canada even though impacted by the financial credit crises was able to weather the crises much better than many other countries. No financial institutions in Canada failed and there were no bailouts of insolvent firms. The success of the Canadian economy to weather the financial crises when compared to the US is attributed to how the Canadian regulatory framework differs from that of the U.S and also the its size. In contrast to the U.S. that allowed a weak fragmented system to develop and hence, small (less) stable banks, along with a shadow banking system of less regulated securities markets, investment banks and money market funds, overseen by competing regulators. Canada setup a concentrated banking system that controlled mortgage lending and investment banking under the watchful eye of a single, strong regulator. (Haltom, 2013)

Literature Review

a. Comparing the US and Canadian Banking System

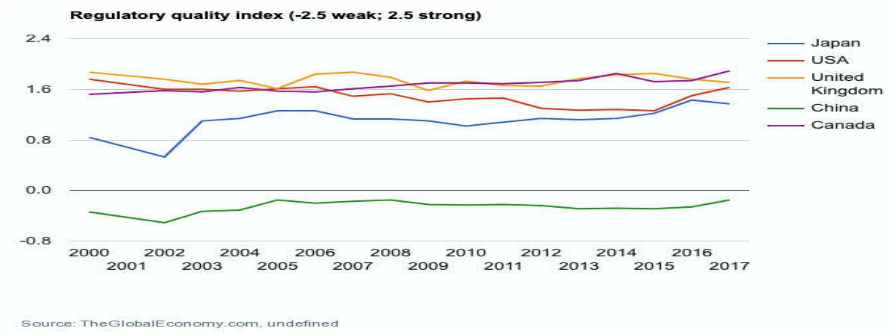

Figure 1. Regulatory quality index: Value 2000-2012, retrieved from http://www.globaleconomy.com/ Copyright 2019 by Creative Commons

2008 is not the first time that the Canadian Banking System was able to weather a financial crisis. The Canadian system had remained unsupervised till the 1980's and furthermore, in a period where both the US and Canadian system was unregulated, 1830's to 1913 – America experienced as many as eight systematic banking crises where Canada suffered only two short lived episodes. Hence, the evidence suggests that regulations alone cannot explain Canada's stability in the banking sector suggesting that perhaps Canada has found a way to balance the provision of risk with the containment of risk. (Haltom, 2013)

The main difference between the financial system of Canada and US is as to how the services are provided. The U.S. has a very fragmented financial system containing almost 7,000 chartered banks and a legion of regulators. Hence, depending on how the bank is charted an American bank can be regulated by the Fed, the Federal Deposit Insurance Corporation, the Office of the Comptroller of the Currency. In more recent times and especially since the financial crises of 2008, the umbrella groups such as Financial Stability Oversight Council (2010), have been created. (Rashid, 2019). On the other hand, Canada has 80 banks out of which 6 of them hold the majority of the market share. Furthermore, Canada has one overarching financial regulator, the

Office of the Superintendent of Financial Institutions (OSFI). The securities market is regulated by Canada's 13 provincial and territorial government, but their regulations are mostly in harmony with each other. Although it may be argued that the size of the banking sector in the US makes it nigh impossible to completely regulate, and that regulation and risk averse behavior may indeed stem the tide of innovation, and investment that the US banking system is known for and which the Canadian banking system seems to lack. (Rashid, 2019) (Madura, 2016)

b. GDP and GDP Growth Rate

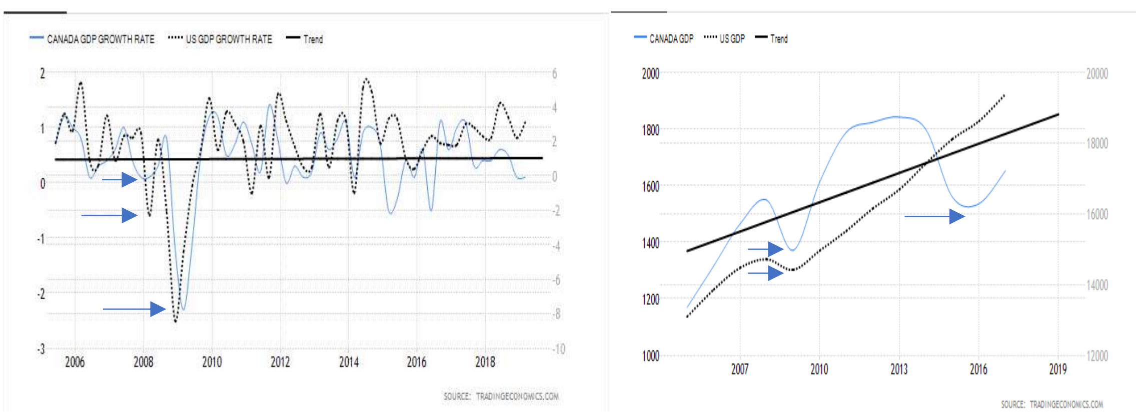

Figure 2. GDP and GDP Growth Rate, Canada and US: Value 2006-2019, retrieved from http://www.tradingeconomics.com/ Copyright 2019.

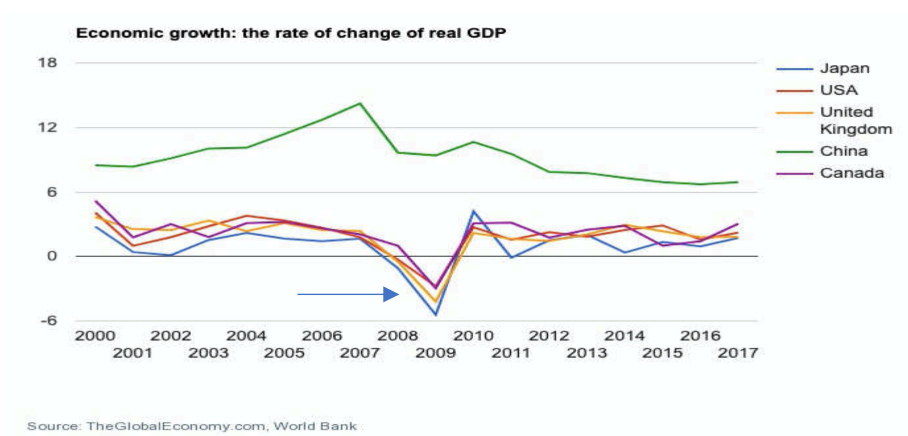

Figure 3. Economic Growth: the rate of change of real GDP: Value 2000-2017, retrieved from http://www.globaleconomy.com/ Copyright 2019 by Creative Commons.

When considering the impact of the financial credit crises on Canada, a comparison of the impact on the US produces valuable insights. We look at the specific data points that helps us gauge the impact of credit crises on Canada as well as to providing us insights as to why the recession occurred. Therefore, data points such as GDP growth rate, currency value, exports, building permits, stock market index, foreign direct investment, industrial production, new orders and bankruptcies are assessed.

We begin with an assessment of the GDP growth rate during the years of the financial crises. The GDP growth rate remains one of the most important indicators of the economic health of the country. Hence, when the economy is expanding the GDP growth rate is positive and when the GDP growth rate is negative and persistent the economy is in a recession. The data for both the US and Canada shows a significant decline in the GDP growth rate during the years of 2008-2010, with the GDP growth rate almost hovering around a -3%. Both the US and Canada see a recovery of their GDP growth rate to a positive number towards the end of 2009 and the start of 2010. Similiarly the overall GDP of both countries shows a significant fall during the years of 2007-2010 with both the countries showing an upward trend toward the end of 2009 and the start of 2010.

c. Currency Value and Import Export Trends

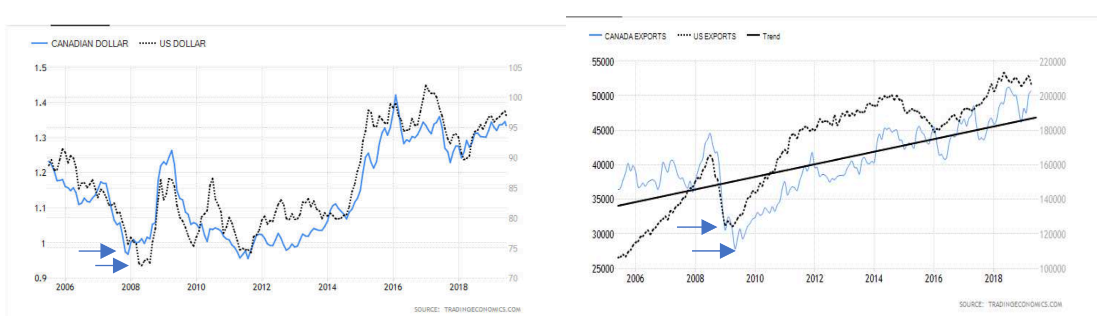

Figure 4, Canadian Dollar and Canadian and US Exports: Value 2006-2019, retrieved from http://www.tradingeconomics.com/ Copyright 2019.

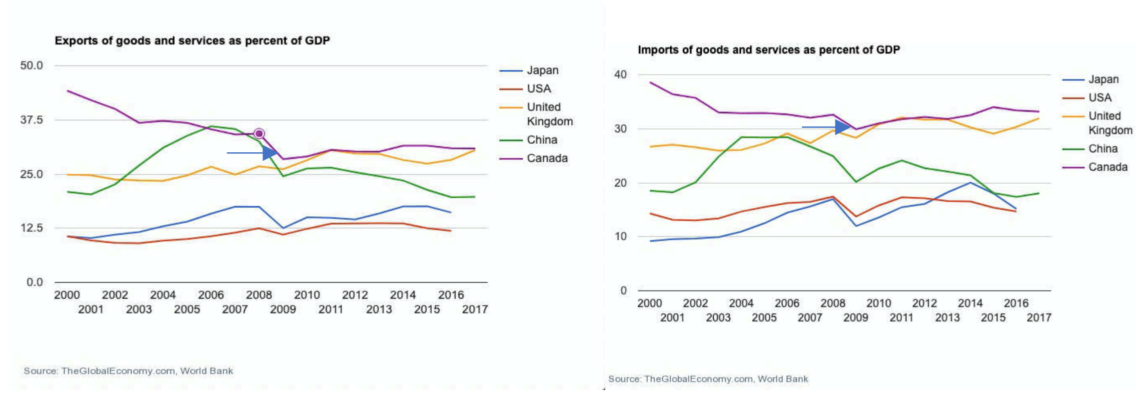

Figure 5. Export and Import of Goods and Services as a percent of GDP: Value 2000-2017, retrieved from http://www.globaleconomy.com/ Copyright 2019 by Creative Commons.

Moving on to the currency value of both US and Canada we examine the trend during the years of the Great Recession. Hence, the data points to a significant decrease of both the Canadian Dollar and the US Dollar in the year of 2008. Furthermore, it is not until the year 2016, that the currency value of both countries shows a steady trend and a currency value above the pre-recession levels. When combined with an analysis of both the US and Canadian Exports, we are provided insights as to why both the US and Canadian Dollar experienced a depreciation during the years of the Great Recession. One of the principal reasons why a currency depreciates is due to a lack of demand of the currency in the market caused by a reduced demand for the country’s exports. Hence, the data for both the US and Canadian exports shows a significant decline between the years of 2008-2010. As exports are a major component of the GDP the significant decrease in exports during the years of the Great Recession explains the reduction in the GDP value. Although it may be said that the fall in the Canadian dollar was a saving grace for Canada as it helped in making Canadian exports more affordable hence prompting a recovery.

d. Investments

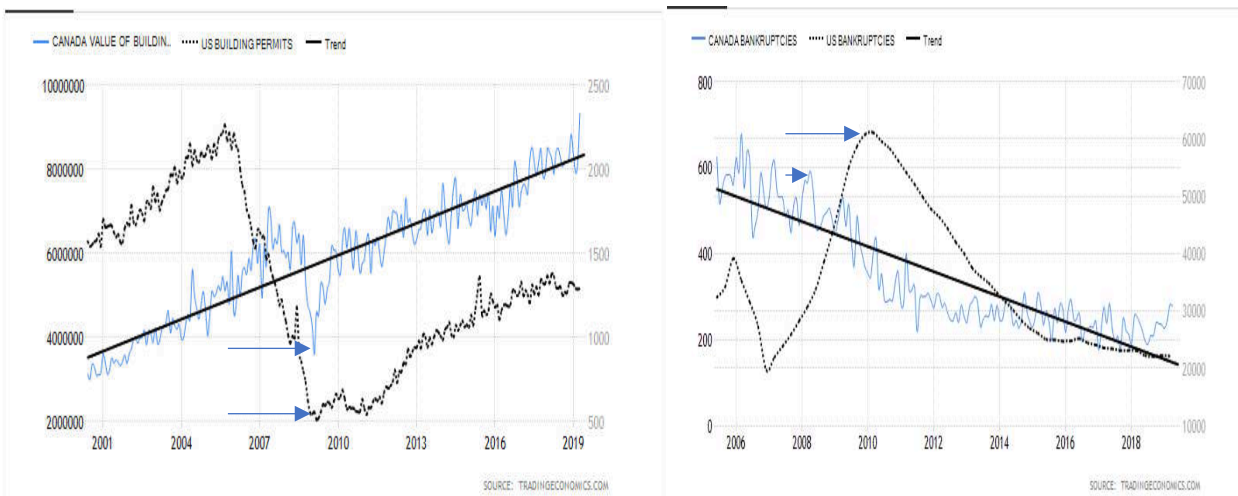

Figure 6. Canada and US Building Permits and Canada and US Bankruptcies, Value 2006-2019, retrieved from http://www.tradingeconomics.com/ Copyright 2019.

Investments are a principal factor in the calculation of a country's GDP. Hence, our next step is to examine the investment components of the Canada's GDP. Since the root cause of the financial crises is in sub-prime mortgages and the housing market, we first examine the data relating to the issuance of housing permits in both the US and Canada. Housing constitutes to a fixed investment in the calculation of the GDP and is then an important factor determining over-all GDP and GDP growth. For the US we see a sharp decline in the issuance of housing permits starting from the year 2006. The initial figure between the years of 2004-2007 stands at approximately 9,000,000. Between 2007-2010 this figure has fallen to 2,000,000. For Canada in the years of 2007-2010, the high is around 7,000,000 while the low, coinciding with the fall in the US housing permits is far below the trend at 4,000,000. Such a sharp decline in the value of housing permits, signals a significant reduction in domestic capital investment. We also assess the bankruptcies during the years of the Great Recession. Hence, again comparing US and Canada data we find a sharp increase in US bankruptcies between the periods of 2006-2010, from a low of approximately 175 in 2007 to 600 in 2010. For Canada the bankruptcies hover around the trend line with a low of approximately 500 to a high of approximately 600 in the years of 2008-2010.

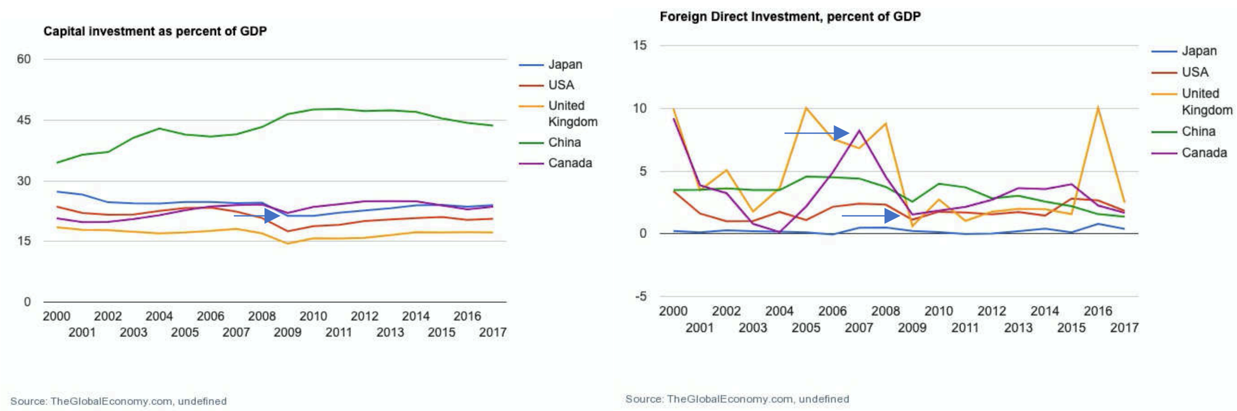

Figure 7. Capital Investment and FDI as a percentage of GDP, Value 2000-2017, retrieved from http://www.globaleconomy.com/ Copyright 2019 by Creative Commons.

Further analysis into the investment component of the GDP reveals insightful facts. Consistent with our early analysis that there is a reduction in domestic investment, holds true when we look at data for Capital Investment as a percentage of GDP. For Canada, Capital Investment constitutes to 24.13% of the GDP in 2008 and declines to 22.02% of the GDP in 2009. Furthermore, analysis of Foreign Direct Investment (FDI), a component of international trade and investment reveals a significant reduction, from a high of 8.22% in 2007 to 4.53% in 2008 and a low of 1.53% in 2009.

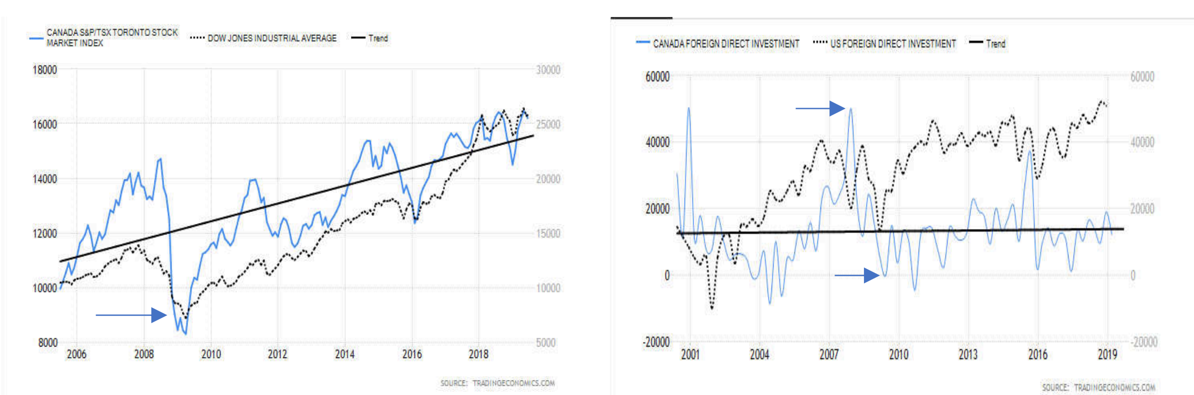

Figure 8. Canada and US Stock Index and Canada and US FDI: Value 2006-2019, retrieved from http://www.tradingeconomics.com/ Copyright 2019.

The reduction in FDI is then reflected in Canada's stock market index, Canada S&P/TSX Toronto Stock Market Index. Coinciding with decline of the US Dow Jones Industrial Average during the years 2008-2010, the Canadian Index falls from a high of 14000+ points to a low of 8000+ points. Canada's reliance on FDI to in 2007 stood at 8.22% of the GDP and hence FDI formed a significant portion of the GDP especially in 2007. The resultant decrease in FDI due to the international credit crises then definitely had an impact on the overall GDP and the GDP growth rate. Hence, it is reasonable to say that the Canadian companies experienced liquidity problems.

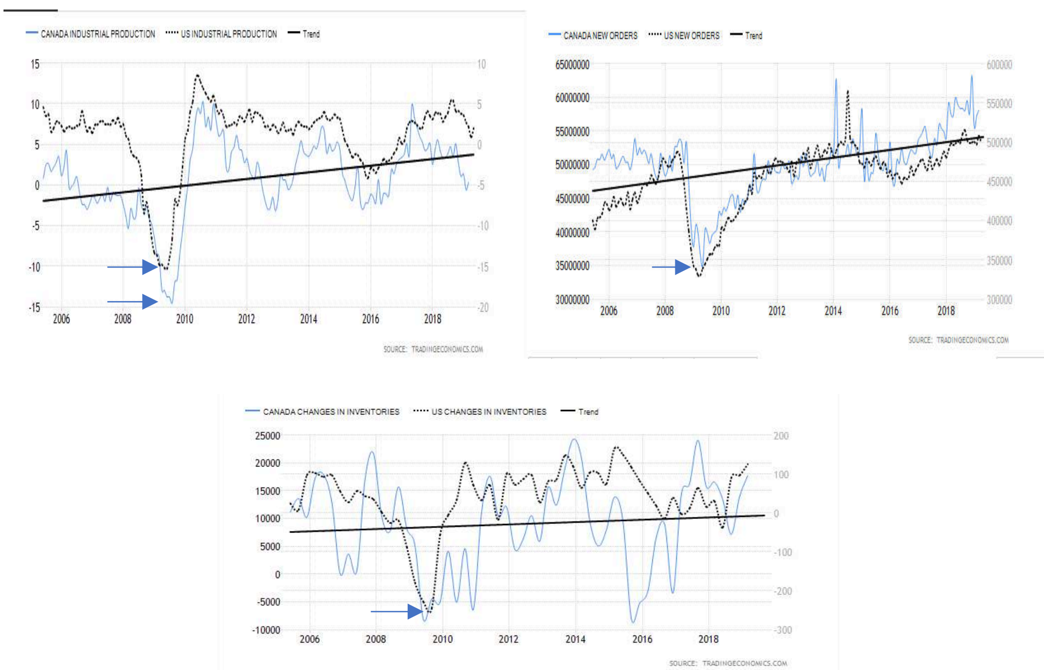

Figure 9. Canada and US Industrial Production, New Orders and Changes in Inventory: retrieved from http://www.tradingeconomics.com/ Copyright 2019.

When examining domestic investments, it is important to look at production data. Inventory investments include changes in the stock of raw material, parts and finished goods held by businesses. Upon examining the data for inventory levels during the years of the Great Recession we find that during the years 2008-2012 the change in inventory levels sees a sharp decline staying well below the trend-line. Furthermore, both Canadian Industrial Production and New Orders show a sharp decline between the years of 2008-2010.

e. Consumption & Labor Force Participation

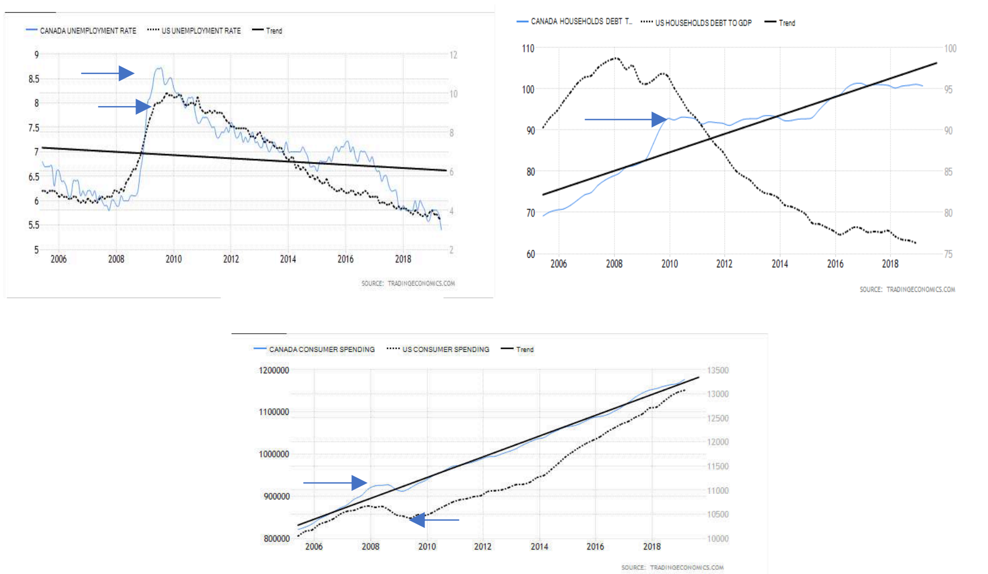

Figure 10. Canada and US Unemployment, Household Debt to GDP and Consumer Spending: Value 2006-2019, retrieved from http://www.tradingeconomics.com/ Copyright 2019.

Another important component of the GDP and GDP growth rate is Consumption. Consumption measures the market value of all goods and services that are purchased by households. At the same time we also look at the Canadian Household Debt to GDP and Unemployment figures during the years of the Great Recession. A fall in GDP and the GDP growth rate signals a reduction in consumption due to a reduction in wealth. Furthermore, a fall in Investments and the consequent fall in the levels of Inventory, Production and New Orders signal a sharp decline in the Employment statistics of the country. This analysis is consistent with the data as we see a sharp increase in the Unemployment rate during the years of 2008-2010 with a peak of 8.5%+ for Canada. Furthermore, the Housing Debt for Canada shows a sharp increase well above the trend line during the years of 2008-2010. It is the early healthy position of the economy and the Household Debt ratio that enabled Canada to weather the financial crises even though there is a decline in Consumer Spending. The monetary and fiscal policy response during the credit crises has a further impact on Consumer Spending.

f. Monetary and Fiscal Policy

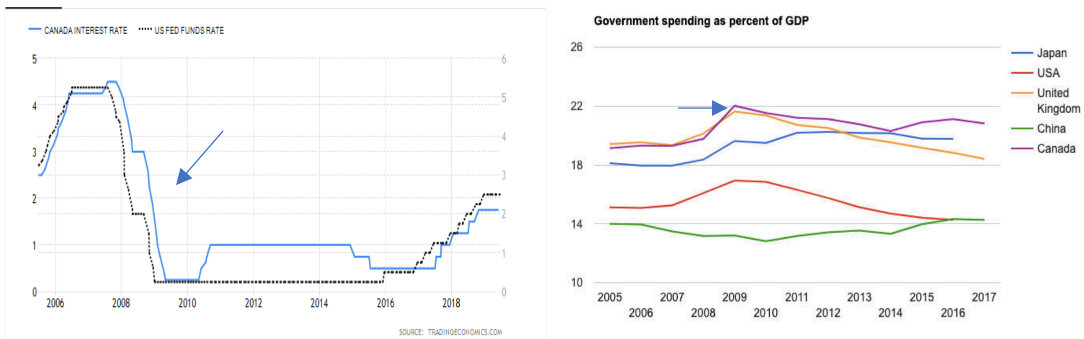

Figure 11. Canada and US Interest Rate and Government Spending: Value 2006-2019, retrieved from http://www.tradingeconomics.com/ Copyright 2019, Value 2000-2017, retrieved from http://www.globaleconomy.com/ Copyright 2019 by Creative Commons.

The financial crises prompted a policy response from many countries. A monetary policy response occurs when the central bank of a country uses the interest or inflation rate to control the money supply and the cost of borrowing. A fiscal policy response occurs when the government spending and the tax rates are used to influence economic conditions. During the period of the financial crises there was a concentrated response from the central banks of the major countries involved. Hence, we see a sharp reduction in interest rates as a coordinated response from both the US and Canadian central banks. Canada's interest rate stood at above 4%+ in 2008 although during the years of 2008-2010 it was reduced to a 0.25%. A reduction in interest rates facilitates investment and as our earlier analysis has shown during the time of the Great Recession the Canadian companies experienced a credit crunch due to a large decrease in FDI. At the same-time we see a large increase in government spending to almost a 22% of the GDP. An increase government spending increases aggregate demand, leading to an increase in production due to increase in consumption. The coordinated use of monetary and fiscal policy leads to a path to economic recovery.

g. Impact on MNC's

The economic condition of the global economy as well as a domestic economy can have a significant impact on the valuation of an MNC. The following is the formal process of valuing a MNC receiving multiple currencies over multiple periods of time.

$$V = \sum_{t=1}^{n} \left\{ \frac{\sum_{j=1}^{m} [E(CF_{j,t}) \times E(S_{j,t})]}{(1+k)^t} \right\}$$

Figure 12. MNC Valuation: International Financial Management, Jeff Madura 12th Edition, Copyright 2019, Cengage Learning.

Where:

$CF_{j,t}$ = cash flow denominated in a particular currency.

$S_{j,t}$ = exchange rate at which the MNC can convert the foreign to the domestic currency at the end of period t.

Hence, applying this model of valuation to MNC's based in Canada an engaged in trade with US yields interesting results. Therefore, an MNC based in Canada will be adversely impacted during the years of the Great Recession. This is due to the fact that US economic conditions weaken significantly during the Great Recession. The consumers in the US suffer a fall in their income and the unemployment rate increases sharply. The consumers now have less money to spend and their demand for the MNC products and in our case the demand for Canadian goods decrease in the US resulting in a reduction of cash flow for the MNC. This is reflected in our earlier analysis as we see a large decline in the export volume for Canada and a sharp decline in the import of Canadian good by the US. As Canadian based MNC's experience a reduction in cash flows it will cause a reduction in workforce hours, higher levels of unemployment and a reduction in income of both workers and owners. Furthermore, exposure to exchange rate risk has a further impact on the valuation of an MNC. Hence, when the currency value of US dropped significantly during the Great Recession, the MNC's based in Canada saw a further reduction in their cashflow. The monetary and fiscal policy response to the Great Recession facilitates recovery for the MNC's. The reduction in interest rates facilitates the expansion and borrowing and aggregate demand stimulation increases consumer demand, consequently increasing production.

Conclusion

We start with the application of macroeconomics and international finance to access the international credit crises. We compare the US and Canadian banking system to ascertain as to why the Canadian system weathered the crises. GDP and GDP growth remain one of the most important economic indicators of the well-being of an economy. Hence, this is where we start and determine the fall in both the GDP and GDP growth rate during the Great Recession. We further analyze the individual components of GDP and hence import, and export data and currency values are analyzed, both of them showing a negative impact due to the fall in GDP. We take a close look at the investments and ascertain that there is indeed a large reduction in housing permits, an increase in bankruptcies, a reduction in capital investments, a reduction in FDI and consequently a fall in the stock market index. Consequently, the fall in consumption expenditure and rising rate of unemployment enforces our analysis. Therefore, we analyze the fiscal and monetary policy responses to the credit crises and find that both fiscal and monetary instruments are used to stem the recession. The impact on MNC's are also analyzed and we ascertain that the credit crises negatively impact Canadian based MNC's due to reduction in cashflow as US imports decrease and a reduction in cash flow due to exchange rate fluctuations.

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