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The Impact of Subprime Financial Crisis on Canada and United States Housing Market and Economy

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Abstract. This paper aims to study the impact of US subprime mortgage on the housing market in Canada since there is a close relationship between the two countries from regional perspective as well as trading and cooperation. By reviewing the official statistics data in the US and Canada, this paper firstly sketches the macro economy and housing market of Canada and the US before and after subprime financial crisis. Afterwards, it discusses the causes of the close relationship between these two housing markets and macro economy.

Keywords: Financial Crisis, Canada, the United States, Housing Market.

1. Introduction

In this early century, the Fed Funds' target rate in the United States was kept below 3% until the mid of 2005 in response to the financial panic caused by the fall in stock market prices in 2000 (Eun & Resnick, 2009). The housing bubble in the United States grew with the stock bubble in the mid-90s. People who experienced wealth increase with the extraordinary run-up of stock prices were spending based on this increased wealth. This led to the consumption boom in the late 90s and people buy bigger and better homes. The extraordinarily low interest rates accelerated the rise in housing price. From the fourth quarter of 2002 to the fourth quarter of 2006, real house price rose by an additional 31.6% (Baker, 2008; Cecchetti, 2009). The escalated housing price motivated homeowners to refinance and withdraw equity from their house in order to further consume in the future. Banks also lowered their credit standard to attract the potential homebuyers even though their ability to repay the loan was weak when the interest rate increase in the future (Eun & Resnick, 2009). These risky mortgages are the so-called subprime mortgage (Crotty, 2009). Many of them were adjustable-rate mortgages which were backed by the asset with bubbles (Schloemer, Li, Ernst, & Keest, 2006). As the interest rate rose, housing price dropped and mortgage defaults increased. When the asset bubble burst, asset value fell. Margin calls forced borrowers to sell the asset, further driving down the assets' market value. It reduced the value of the collateral and many financial institutions suffered from a huge loss. The spread (usually used as tool to measure credit risk) between the three month Eurodollar rate and three-month U.S. Treasury-bills had increased by 6.7 times from 30 basis points to 200 basis points from March 2007 to November 2007. The depositors were fear to save money in banks. As a result, liquidity in the world started to dry up (Acharya, Philippon, Richardson, & Roubini, 2009; Eun & Resnick, 2009). Global investor lost faith in buying these mortgage-backed securities and other securities and ultimately led to financial crisis in 2007 (Acharya, et al., 2009). According to the U.S. Congress's Joint Economic Committee (2007), an estimated $71 billion in housing wealth lost directly as a result of foreclosures and an additional $32 billion lost indirectly due to the spillover effects on neighboring properties (Carr, 2007). It also led to major industrialized countries' recession (Sharma & Jha, 2012). In Korea, the KRW depreciated by 56.9% by the end of 2007 (Park & Lee, 2009). Credit crunch in funds market increased the default risk in real estate finance, drop in housing price and transactions (Hwang, Park, Lee, Yoon, & Son, 2010). European countries have taken unprecedented steps to provide extensive liquidity, give assurances to bank depositors and bank creditors such as blanket guarantees (Demirgüç-Kunt & Servén, 2010). Developing countries like India experienced a

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fall in GDP from 9.2% in 2007-2008 to 6.7% in 2008-2009 (Sharma & Jha, 2012). In Slovakia, however, the adoption of Euro cushioned the transmission of global financial shocks (Gabrisch & Orlowski, 2011).

2. Data Analysis: US and Canada Economy and Real Estate Market

According to the data published by Statistics Canada (2010), there was a significant increase in GDP in early 2005 and the mid 2008. It then decreased sharply because of the global financial crisis. The GDP dropped in the middle of 2009 and started to recover. In the US, real GDP grew steadily from 2000 to 2010. The real GDP was about $12,900 billion in the first quarter of 2006 and jumped to about $13,200 billion in the second quarter of 2010, reaching 2.16% growth rate. Although sub-prime financial crisis occurred, the real GDP still increased (US Bureau of Economic Analysis).

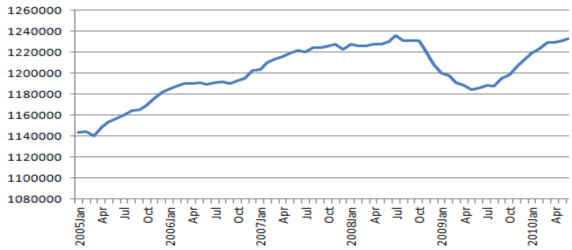

Fig 1: Canada GDP in US million dollars (Statistics Canada, 2010)

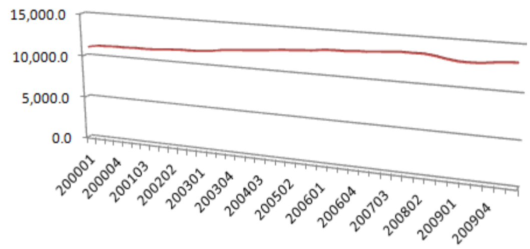

Fig 2: US GDP in billions of chained 2005 dollars

According to the Statistics Canada (2005-2010), unemployment rate fluctuated around 6% between 2006 and 3rd quarter of 2008. After the financial crisis, it increased sharply in early 2009. In the US, the unemployment rate was about 4% in 2000 but increased to 4.6% in 2007, 5.8% in 2008 and reached 9.8% in 2009 (US Bureau of Labour Statistics).

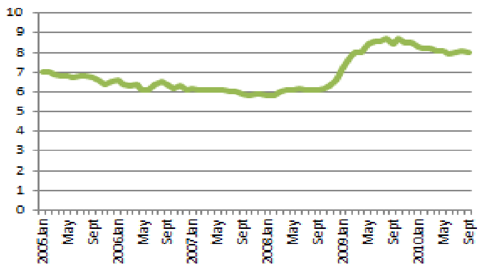

Fig 3: Unemployment rate in Canada (Statistics Canada, 2010)

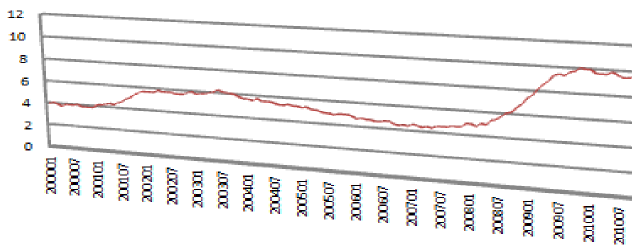

Fig 4: Unemployment rate in the US

Based on the Canada's International Investment Position published by the Statistics Canada (2010), the FDI has grown since early 2005. The effect of financial crisis was not significant on FDI. In the US, the foreign investment kept increasing from 2005 the foreign investment kept increasing from 2005 ($104,773 millions) to 2008 ($324,560 millions). The foreign investment suddenly became negative in 2005's second quarter because of the change in corporate taxation that induced US-based multinational enterprises to withdraw large amount of capital from their foreign subsidiaries. In 2009's first quarter, the foreign investment nearly dropped to zero as the foreign investors lost confidence in the U.S. economy.

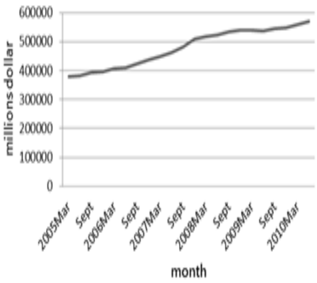

Fig 5: The Foreign Investment of Canada (Statistics Canada, 2010)

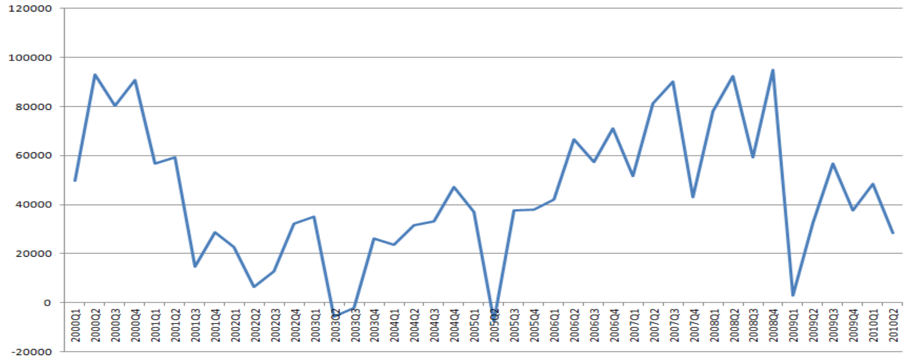

Fig 6: Foreign investment in the US

In Canada, the total value in export and import is quite close at the beginning but the gap increased since 2006. The total value of import was larger than export; import increased slightly between 2005 and 2008, and decreased during the middle of 2008.The export was affected by the financial crisis and dropped. Since 2009, both export and import increased gradually back to the level before the financial crisis (Statistics Canada, 2010). Since the export has not increased but the import increased, the export to import ratio has dropped since 2005. There was a slight increase in the ratio until the late 2008 and started to drop in middle 2009. In the US, the export to import ratio kept increasing from 2006 to 2010. It was possible that the U.S. government or other institutions had been trying hard to export more goods and services to compensate the losses from sub-prime financial crisis (United States Census Bureau, 2010).

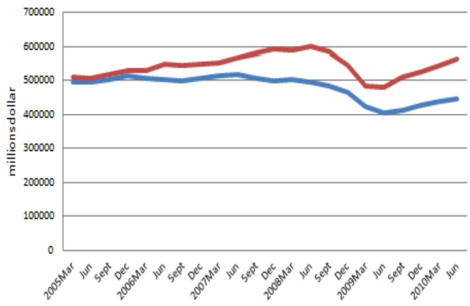

Fig 7: Export and import in Canada (Statistics Canada, 2010)

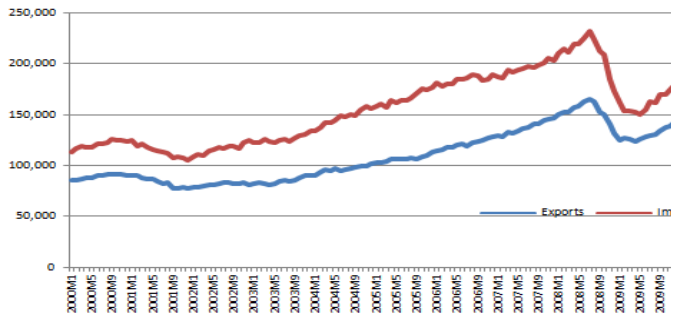

Fig 8: Export and import in the US (United States Census Bureau, 2010)

According to the Capital Expenditure Price Statistics provided by the Statistics Canada (2007,2009), the residential price index showed an obvious increase from early 2005 to middle of 2008. It decreased in the late 2008. In the early 2009, the index started to climb and recover. Its trend matched with the movement of GDP well, it means that it has been affected by the financial crisis.

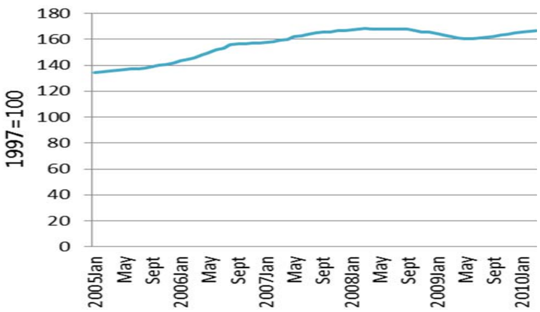

Fig 9: Average residential price in Canada (Statistics Canada, 2010)

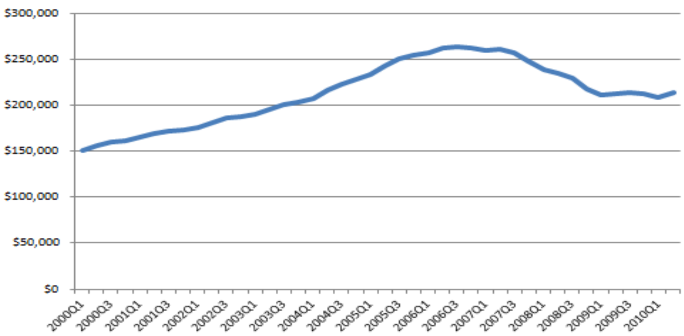

Fig 10: Average residential price in the US

In Canada, there was seasonal pattern of the newly built residential. The trend was quite stable. During 2005 and 2008, the volume increased in the first two quarters and decrease in the third and fourth quarter. So the resident built volume in mid2009 had not increased as the trend before and stayed at a comparatively low level since then.

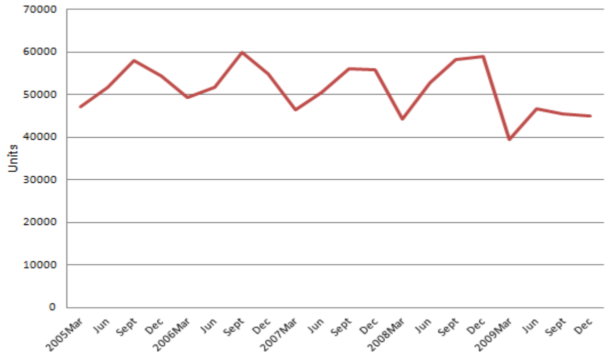

Fig11: The Newly Built (Canada Mortgage and Housing Corporation, 2010).

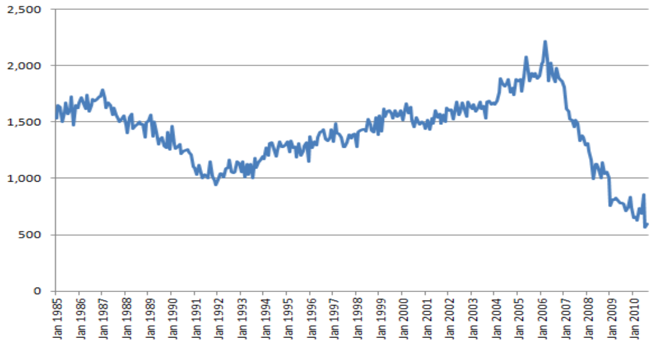

Fig 12: Newly built housing in the US (United States Census Bureau, 2010)

3. A Discussion on the Impact of Financial Crisis on the US and Canada

Since there is a close relationship between Canada and the US, the downturn of the US economy since 2007 affected Canada directly. According to the report of Canada Mortgage and Housing Corporation (2008-2010), the economic growth of Canada is slow in third quarter of 2007; one of the primary reasons was the slower growth of US economy. The slower growth of the US led to a drop in the demand of Canadian exports and the significant drop of net export has dragged the Canadian economy. It matched with the result of the data analysis that export and GDP had a significant dropped since the third quarter of 2008. It implies that the global financial crisis which was originated in the US affected Canada's economy. Besides, there is a strong correlation between the country's economic performance and housing market. For example, the poor economy causes a decrease of personal income such as salary decline on even unemployment. Since most of the homeowners or potential homeowners buy properties though mortgage finance, so the decrease of household income will directly affect their ability of repayment. Therefore the economic performance has a positive correlation with the housing market. The global financial crisis has caused a large drop of global trade (Warwick and Andrew, 2009). In fact, Canada and the US is one of the closest business relationships in the world. The relationship has been strengthened in past 3 decades by signing Canadian–American free trade agreement in 1989 and the North American Free Trade Agreement in 1994. In recent years, trading between two countries has focus more on the natural resources, agricultural commodities, and the cultural entertainment industry. Since the supply of natural resources and energy are tense in the world in the recent decade, especially for the developed country like US, the trading of the resources has become more important in the trade relationship (Carl and Ian, 2010). In the work of David and Bob (2010) has mentioned that the export to US like oil and gas extraction, petroleum and coal products manufacturing, paper manufacturing and wood product manufacturing have generated the major trade surplus of Canada. On the other hand, the two countries are working together on the issue of environment such as monitoring air quality and solid waste transfers, and protecting and maintaining the quality of border waterways in order to have a sustainable development (Carl and Ian, 2010). Moreover, David and Bob (2010) has also claimed that both climate and energy policies decision of US are significant to Canada, since the various policy may cause competitive advantages in one country. All the above shown that the relationship of the two countries is contiguous, no matter on the economy issue or sustainable development. In addition, the Canadian housing cycles is quite similar with the U.S. housing cycles. According to the work of Rose and Ilan (2007), they found that the correlation in housing price cycles between Canada and U.S. is fairly strong. No matter in the national level or among the largest cities, the real house price growth rate of the two countries is highly correlated. Their results showed that there is 70% of time that the Canadian housing cycle was matched with the U.S. housing cycle. Besides, they claimed that the U.S. housing cycles are more stable than Canada, which means Canadian housing market is more volatile. Moreover, the contraction periods of Canadian housing market are comparatively shorter than U.S. Fig. 9 show that the price movement of Canada is more fluctuant than U.S. and Fig. 10 shows that the recovery of Canada is faster than U.S., which are matched with the arguments of Rose and Ilan (2007).

Figure 5.2: Housing Price Index of Canada U.S.

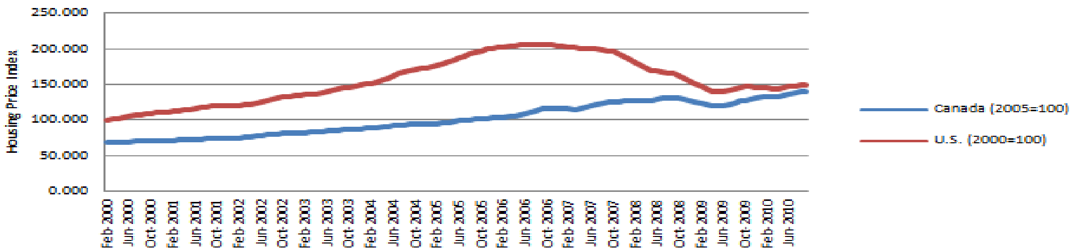

Fig 13: Housing price in the US and Canada (Standard & Poor's Financial Services (2010); Teranet National Bank National Composite House Price Index, 2010)

Since the housing market cycle of the two countries is strongly correlated, the movement of both markets is similar. When one market is falling, the other follows. It means that the performance of Canadian housing market is easily affected by the U.S. housing market. As a result, when the U.S. housing market shrank and it also affected Canada.

4. Current Performance of Canadian and U.S. Housing Market

According to the report of Standard & Poor's Financial Services (2010), the housing market of US started to recover at the beginning of 2009, three market housing indicators such as home sales, housing starts and housing price stopped declining and remained stable since then. In Canada, both the housing price index and transaction volume started to increase in early 2009 which mean it began to recover. Although the recovery moment of two countries was close, their recovery speed is different. Fig. 10 shows that Canadian housing price has backed to or even higher than the level before the financial crisis, but the US housing price has not reached to the level before the financial crisis yet. Fames (2009) claimed that both Canada and U.S. boosted the housing market by lowering the interest rate during 2001-2006, but there are few key factors that the Canadian housing market has not go bust like US. First of all, although the subprime lending has increased in Canada, the subprime market in Canada is still much smaller than United Stated. Secondly, the subprime market has not engaged to expand newer products like interest-only and negative-amortization mortgages. Thirdly, the securitization is less common in Canada; only 25% mortgages have been securitized while US was a double of it. To summarize the critical factor that leads the two markets having a various levels of recession and recovery is that the lending standards. According to the National Delinquency Survey published by Mortgage Bankers Association , mortgage delinquency rates (MDR) of Canada is lower than 0.5 since 1998 until now, but the MDR of U.S. has increased from 0.5 in mid-2007 to more than 2.25 in 2009. As the Canada has persevered in conservative lending practices (CIA, 2010), it helped the Canadian housing market got a quicker recovery under the financial crisis.

5. Conclusion

The subprime crisis of the U.S. led to a global financial crisis, many counties' economy were hurt in different extents. Since Canada relies greatly on the export to US, the sharp downturn of the US economy caused a decrease in demand of import from Canada. The Canadian export also dropped, pulling down the GPD and pushed up the employment rate in Canada. As a result, there was a decrease in income per capita that hurt the housing market. Although the housing market cycle is similar between Canada and US, the performance after crisis was quite different. As the lending standard of Canada is straighter, it successfully decreased the risk of default and mortgage delinquency.

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