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A NATIONAL ACCOUNTS PERSPECTIVE ON RECENT FINANCIAL EVENTS − FINANCIAL AND WEALTH ACCOUNTS

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A NATIONAL ACCOUNTS PERSPECTIVE ON RECENT FINANCIAL EVENTS − FINANCIAL AND WEALTH ACCOUNTS

Introduction

1. Financial transactions and the evolution of wealth positions have been an important element of the Canadian System of National Accounts (CSNA) for a number of years. The financial data of the CSNA allow analysts to track sectoral changes in net lending, borrowing and net worth, by asset/instrument and by institutional sector. The evolution of balance sheets along with the changes in the uses of saving as reflected in financial activity since the 1990's has underlined some important changes in the sectors of the Canadian economy over the last 20 years. Since the onset of unsettled global credit market conditions in August 2007 and the marked deterioration of financial markets worldwide in September 2008, interest in financial and economic developments in Canada has grown.

2. This note illustrates how macroeconomic financial data has shed some light on changes in financial markets and the economy over the past two years. It first reviews some longer-term trends in financial behaviour − especially those that put some Canadians at a higher risk from the fall-out of adverse developments in financial markets. It then examines the broad impact of the turmoil in financial markets after August 2007, especially the significant worsening of market conditions after mid-September 2008, as well as the aftermath.

3. Data in this analysis are drawn from Canada's integrated system of national accounts, in particular, the quarterly *Financial Flow Accounts* and the quarterly *National Balance Sheet Accounts*. It also makes reference to the quarterly *Income and Expenditure Accounts* (GDP), as well as the balance of payments statistics1, especially the monthly *Canada's International Transaction in Securities*

The setting

4. The events in financial markets over the past two years occurred against the backdrop of changes in financial behaviour over the previous decade or more. In Canada, the patterns of sectoral net lending or borrowing changed markedly. Firms and governments ran large financial surpluses while households borrowed to the extent that they were running deficits, as personal saving trended downward. Some of these trends reflected shifts in household behaviour to more investment in housing and selected financial assets, including collective investment schemes' increased holdings of equity and foreign investments[2].

Financial positions of households evolve, as personal saving weakens

5. Household balance sheets changed markedly in the past decade. The debt of the personal sector increased from 68% of GDP in 2000 to over 84% late in 2008. Much of this rising debt was driven by expenditure in response to low interest rates, especially on housing. When interest rates fell in the early

1 Data are also drawn from the quarterly ***Canada's Balance of International Payments***, and the quarterly ***Canada's International Investment Position*** is also referenced.

2 This refers to increased exposure through their mutual funds and pension assets.

2000s and remained near their lowest level in a generation, households invested more in real estate. On the supply side, factors included reduced down payments and longer mortgage terms as well as increased funds available to borrowers, the latter partly facilitated through securitization.

6. Securitization is an innovation which enables companies to raise funds through the issuance of debt (asset-backed securities) that is secured by their receivables (securitized assets). For investors, these asset-backed securities offer a balance of safety and return that rival many traditional high-quality fixed-income investments. Securitization refers to the process by which receivables, in this case mortgages, are sold to investors; the originator of a mortgage loan sells this loan to a special purpose entity, who then bundles the mortgages and issues a debt security backed by the mortgages[3].

7. In Canada, securitized mortgages rose from 5% of all mortgages in 1997 to 20% in early 2007 and 28.6% late in 2008. The growth of securitized mortgages in Canada was much slower than in the US, where by the mid-1990s they already accounted for over half of all mortgages. However, sub-prime mortgages were much less common in Canada; and, mortgages provided by chartered banks that are more than 80% of the value of the home must be insured with the Canada Mortgage and housing Corporation (CMHC).[3] These factors help explain why the mortgage-backed securities' market continued to expand in Canada into 2008[4].

8. Households also altered the asset side of their balance sheet over the last two decades, with an increasing proportion in real estate and the stock market (up from a combined 63% in 1991 to 77% in 2008). This meant that they held relatively less in assets such as deposits and debt instruments (which declined from 24% to 14%). This left household wealth more exposed to sudden changes in the price of housing and stocks. In addition, personal saving continued to have a smaller role in household net worth after 2002, an acceleration of a trend that began in the late 1980s.

Governments and non-financial corporations provide the bulk of national saving

9. While households in Canada increased their borrowing, governments and corporations were lowering their debt. National saving evolved from being dominated by personal saving to being principally comprised of corporate and government saving. Further, these sectors began to supply more than the amount of saving required to finance domestic investment in the late 1990s, to the extent that Canada was lending abroad.

10. Government debt relative to GDP fell from a peak of 94.6% in the mid-1990s to 52.4% by mid-2008, led by the federal government. This reversal substantially improved Canada's ranking of debt-to-GDP ranking in OECD countries. This was the case even though unfunded pension liabilities are included in government debt measures for Canada. The improvement in government finances was even more pronounced if the increased assets of social security funds controlled by governments are included in total government; net debt fell sharply after 2000 to 35.5% of GDP, partly reflecting the overhaul of funded social security plans (mainly the Canada Pension Plan) that resulted in higher contribution rates.

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3 In the U.S. the process was more sophisticated. The originator might sell the mortgage to another institution, which may then package several mortgages together and sell the payments streams to investors. As a separate step, these investors can use these payments rights to back other securities they issue (as occurred for some asset-backed commercial paper). In the US, with its more fragmented banking system, initial mortgage lenders often sold mortgage loans to larger financial firms before securitization occurred.

4 The increased bundling of US sub-prime mortgages into mortgage-backed securities (MBS) eroded investor confidence after the default rate on these sub-prime mortgages began to rise in 2007. Other structural differences in mortgage lending led to fewer defaults or losses in Canada than in the US. Lenders can repossess a home in Canada more easily than in many American states

11. Non-financial corporations trimmed their ratio of debt to GDP from 54% in 1990 to 46% in 2008. Firms achieved this by using record profits to pay down debt early this decade, especially a drop of $10.2 billion for longer term bonds between 2002 and 2006 (bond issues rebounded by 14% during 2008). The improvement in the corporate sector balance sheet was reflected in other financial measures − notably the ratio of debt to equity, which fell to a record low level.

Risk factors

12. Several of these decade-long changes in behaviour arguably exposed some Canadian economic agents to more risk. In particular, the increasing reliance of households on borrowing may have become problematic after some credit markets seized up in August 2007. However, while households in Canada correspondingly took on increasing amounts of debt, the cost of servicing that debt did not rise proportionally. Debt service payments (which include the portion related to the cost of interest but not the principal) as a share of personal disposable income edged up from 7% to 8% between 2003 and 2007[5].

13. While personal-sector equity in real estate rose to over 70%[6], household balance sheets were more vulnerable to stock market swings than at any other time in history. Balance sheets held about 5% of financial assets in marketable equity and mutual funds in 2007, compared to 29% in 1990. Further the significant proportion of funds placed in mutual funds and pension funds, indirectly increased their exposure to foreign financial markets.

14. Canadian institutional investors' portfolio assets held abroad nearly doubled after 2002 to $700 billion, mostly reflecting growing investment abroad in stocks and bonds. Much of these increases reflected the gradual loosening of restrictions on the foreign content of registered pension plans, culminating in their elimination in 2005. This also meant increased exchange rate risk, with fluctuations occurring during the commodity price boom after 2003 (when the dollar rose above parity with the US dollar) and its bust in the second half of 2008 (when the dollar quickly retreated to near US80 cents). Canadian governments and corporations with foreign currency denominated debt also bore the risk associated with significant swings in the Canadian dollar.

Turmoil in global markets began in 2007

15. As concerns about global credit conditions came to the fore in the summer of 2007, which began with credit tightening in the U.S., economic activity started to soften in Canada as well as in other countries. Financial activity followed a similar pattern, at least in Canada.

Asset-backed securities and credit availability

16. The initial impact of concerns about exposure to US sub-prime mortgages was to freeze the Canadian market for asset-backed securities (ABS). Some of these securities were exposed to sub-prime mortgages, which were suddenly viewed as toxic by investors. In Canada, after three years of steady growth, the market for asset-backed commercial paper (ABCP) shrank by almost $10 billion in the fourth

5 By comparison, this debt service ratio hit a high of 10.7% in the early 1990s, and rarely went below 8% during that decade. Low interest rates capped the burden of servicing debt in recent years, and even reduced it slightly in 2008 and early 2009 when interest rates fell to record.

6 Canada avoided the excesses of the US, where housing debt grew faster than home values, reducing net homeowner equity in real estate from its peak in 2000 (a trend sharply reinforced by the drop in house prices after 2006).

quarter of 2007, and continued to contract every quarter in 2008. The declines were for securities financed through commercial paper backed by assets such as auto or business loans.

17. The freeze in asset-backed securities had important implications for consumer credit. Consumers obtain credit from two types of institutions: Chartered banks (and near banks like credit unions) and a wide range of other financial firms such as sales finance and consumer loan companies, with the latter relying more heavily on commercial paper for a major part of their financing. When the ABCP market dried up in the fourth quarter of 2007, consumer credit loans by non-bank financial firms declined by $3.1 billion and continued to decline in every quarter of 2008 and early 2009.

18. Banks offset some of this drop in consumer credit by stepping up their loans to consumers. Consumer credit from banks averaged a $9.1 billion increase over the six quarters ending in the first quarter of 2009, up from $6.1 billion in the previous five quarters. The cumulative acceleration in bank lending totalled $24.0 billion, offsetting some of the $26.6 billion slowdown in lending by non-banks. As a result, the share of banks in consumer credit rose from 73% in the third quarter of 2007 to 78% by the end of 2008. Still, some consumers may well have found their usual credit channels disrupted, fuelling the impression of a selective credit crunch even as overall credit growth was sustained by bank lending.

Canadian institutional investors respond decisively at the outset of global credit concerns

19. Especially pronounced was Canadian institutional investors' response in terms of reducing exposure to foreign markets − that is, curtailing foreign investment in securities. Canadian investors disposed of a record amount of foreign securities in August of 2007. This included liquidating $7.0 billion of their holdings of foreign money market instruments, in the context of sharply diminishing liquidity in the asset-backed finance sector[7][8]. This divestment was made up of $1.6 billion of U.S. corporate paper and $6.3 billion of non-US corporate paper. The reduction in non-US securities was largely comprised of paper issued by European financial institutions, reflecting a failure on the part of those issuers to roll over the instruments. The divestment continued in September of 2007 and by the end of the third quarter of 2007, Canadian investors had disposed of $10.4 billion of foreign short-term debt instruments, to the point where holdings had been reduced by more than 50% in a single quarter[9].

20. The seizure in credit markets also led to a sharp slowdown in the market for foreign bonds. In the second half of 2007, the market for maple bonds evaporated. Maple bonds are bonds issued in Canadian dollars by non-residents, which had developed into a very popular foreign investment vehicle. The drying-up of this market shifted additional risk of exchange rate movements back to Canadian investors.

21. Essentially, the initial reaction by Canadian institutional investors to global credit concerns in the third quarter of 2007 was largely sustained over the next year, until the credit crunch intensified in September of 2008.

7 The initial impact of concerns about exposure to US sub-prime mortgages was to freeze the market for asset-backed securities (ABS). Some of these securities were exposed to sub-prime mortgages, which were suddenly viewed as toxic by investors.

8 The turmoil also affected Canadian financial markets. In Canada, after three years of steady growth, the market for asset-backed commercial paper (ABCP) shrank by almost $10 billion in the fourth quarter of 2007, and continued to contract every quarter in 2008.

9 Notably, no net investments were realized in foreign corporate paper by Canadians until the second quarter of 2009.

… and intensified in September 2008

22. The initial turmoil in financial markets in 2007 was only a prelude to its escalation in September 2008. Following the failure of a major U.S. investment bank in September of 2008, and a growing realization of the number of financial institutions in distress, the crisis spread quickly. In less than a week it expanded from inter-bank lending, to money market funds, and then to a freezing up of the global market for commercial paper. Paralyzed by fear of default or non-payment, liquidity quickly dried up in credit markets around the world.

23. There were several ramifications of the deterioration of the global financial situation late in 2008. The spread between interest rates for government and corporate debt hit a record high, as investors shunned corporate debt and put a premium on the lower risk associated with sovereign debt. Global and Canadian stock markets lost substantial value. The Canadian dollar posted a record quarterly decline, as commodity prices fell sharply.

Canadian economy reacts

24. As a consequence, economic activity declined in a number of affected countries, including Canada[10]. After slowing since mid-2007, the fourth quarter GDP estimates for Canada posted a 3.4% decline (at annual rates). While weakness was diffused, the continued drop in demand for Canadian exports was a significant contributing factor, as the current account surplus melted away into the first deficit since the second quarter of 1999. As well, domestic spending declined, especially for autos and housing.

25. Household net worth fell almost 7% in the second half of 2008, reflecting declines in both the stock market and housing prices. Still, this was far below the 20% drop in household net worth in the US over the past year, reflecting larger declines in both their housing and, especially, stock markets. A measure of the uncertainty felt by households was that they boosted their cash holdings[7] by 4.8% in the fourth quarter of 2008, the largest increase since a 16% jump at the turn of the millennium.

26. Meanwhile, Canadian investors repatriated funds from international financial markets for the first time in three decades. Much of the funds returning to Canada were in search of a safe haven in government securities, especially Treasury bills. In addition to the cumulative divestment of debt securities since mid-2007, fourth quarter sales included significant amounts of foreign equity, as stock markets fell sharply worldwide[11]. Divestment reached $21.1 billion in debt and equity instruments, with most of this activity in October, and marked the end of 29 years of net annual investment in foreign securities by Canadians.

Liquidity measures put in place

27. With investors seeking out the security of public debt, the federal government issued over $50 billion of new debt in the fourth quarter of 2008 to meet this demand for safe assets. Part of the increase in

10 In the U.S., the economy contracted sharply (-6.2%), with similar declines posted elsewhere − in the EU (-5.9) and in Japan (-12.7%). The emerging employment effects of this downturn did little to restore confidence in economies or in financial markets.

11 The collapse of stock markets would have further reduced the value of Canadian investors' holdings of foreign equity securities. However, the exchange rate effect on Canadian foreign assets (largely denominated in foreign currencies) more than offset both these losses and the substantial divestment of foreign securities by Canadian institutional investors in the fourth quarter of 2008. In fact, the revaluation effect of the depreciation in the national currency largely resulted in Canada recording a net international asset position in the fourth quarter of 20081111.

federal government funds raised through the issue of T-bills was deposited with the Bank of Canada, which in turn provided liquidity via loans to the banking system. Chartered banks stepped up borrowings from the Bank of Canada in the fourth quarter of 2008, symptomatic of the drop in inter-bank lending markets in Canada (which was much less marked than in the US and Europe).

28. The other portion of the proceeds from federal borrowing was advanced to a federal government business enterprise, which used this to purchase $25 billion of mortgage-backed securities (through the Insured Mortgage Purchase Program), providing a further injection of liquidity into financial institutions.

Aside: Credit crunch relatively less pronounced in Canada

29. The most visible feature of the global credit crisis in the autumn of 2008 was the drying-up of critical debt markets in the US, notably the inter-bank lending and commercial paper markets. Commercial paper in the US shrank by 10% (or $15 billion) in the fourth quarter of 2008. Quarterly household credit contracted, partly due to an outright drop in lending by US-based commercial banks.

30. The stability of Canada's financial system ensured that credit continued to flow for most borrowers, although often at much higher prices. Despite the global credit crunch, total household borrowing (or financial liabilities) grew by 12.1% between the third quarter of 2007 and the fourth quarter of 2008. Non-financial private corporations showed a similar pattern as households. Short-term loans grew 7.1% from the third quarter of 2007 to the end of 2008, as a 20% increase in loans from banks offset a drop in other loans[12]. Mortgage and bond debt rose at a double-digit rate. There was no sign of firms overall hoarding cash, as its share of financial assets was steady at 23.5% over this period.

31. But these statistics may not capture all the facets of credit. They do not measure its price as measured by the effective interest rate (except for the household sector). Nor do the statistics on the supply of credit reflect potential demand: it could have been that many firms and individuals were caught off-guard by the sudden drop in global demand or wealth, and would have liked to borrow more but were not able to.

Aftermath of recent financial events

32. The economy continued to contract in the first and second quarters of 2009, with the weakness remaining diffused but continued to be strongly influenced by declines in exports. However, economic conditions improved over the course of the second quarter, based on the monthly production-based GDP results. A pick up in consumer spending on durable goods (especially on motor vehicles) and renewed activity in the housing resale market were two areas of strength in the second quarter. Monthly GDP results for July indicated that economic activity was largely unchanged from June.

33. The demand for funds by domestic non-financial sectors remained weak in the first half of 2009. Second quarter activity would have strengthened, except for the drop in federal government borrowing fell sharply following temporary measures to enhance liquidity in financial markets. After three quarters of decline, overall household borrowing increased to $98.3 billion during the second quarter of 2009, led by consumer credit and mortgages, though both were still well off the pace set prior to the economic downturn.

34. Household net worth advanced in the second quarter of 2009 after losing ground in the three previous quarters, as Canadian stock markets recovered partially in the second quarter (Standard and

12 Some of the increase in business credit could be firms activating pre-arranged lines of credit, so the actual availability of new credit could have been lower.

Poor's / Toronto Stock Exchange composite index up nearly 20%). However, national net worth declined for the second consecutive quarter, and has fallen by $92.9 billion in the first half of 2009. The change in national net worth reflected continued declines in national saving and an expanded international balance of payments deficit, as well as substantial revaluation effects[13].

35. Canadian institutional investors returned to foreign stock markets but still continued to have very limited interest in foreign debt securities in 2009. In the first half of 2009, Canadians acquired $14.7 billion of foreign shares, with most of the activity in the first quarter. Acquisitions reflected strong demand for US and non-US shares, as major world stock markets posted gains over the period.

36. For their part, foreign investors returned to Canadian securities, purchasing both debt and equity in 2009. The most notable activity was in the Canadian debt market with non-residents investing $52.7 billion in the first half of 2009, already exceeding any previous annual investment activity.

37. Foreign direct investment flows are yet to recover in 2009, as corporate profits in Canada and in many other jurisdictions continued to decline. The slowdown in 2008 was even more pronounced in the first half of 2009. Mergers and acquisitions activity, both inward and outward, was marginal, in line with the worldwide trend.

Summary

38. When the economy is functioning well, financial systems are often relegated to obscurity as they perform the mundane task of facilitating the movement of money and credit in the economy. However, the upheaval in financial markets over the past two years demonstrated the fundamental importance to the economy of well-performing and efficient financial systems. These developments serve to underline the usefulness of Canada’s integrated system of national accounts, in particular the frequent and timely releases of financial statistics.

39. The financial crisis had pronounced effects on the Canadian real economy, financial markets as well as resident institutional investors and lenders. Both economic and financial activity slowed from mid-2007 and then declined in the fall of 2008. While Canada obviously was affected by the fall-out from the severe drop in international trade and commodity prices in recent months, its avoidance of excessive reliance on debt and relatively prudent financial investments has stood both its financial institutions and overall economy in good stead.

40. The immediate, marked and sustained reaction of Canadian institutional investors starting in mid-2007 with respect to their holdings of foreign securities may have reflected the pending financial crisis that erupted in the late summer and fall of 2008. The current reluctance of these same investors to rebuild their holdings of foreign securities, especially debt instruments, may still be sending a signal about perceived fragility in international financial markets, despite a certain stabilization of conditions over the last few months.

13 The impact of rising foreign equity markets on Canadian institutional investors' international assets was more than offset by the downward revaluation effect on those same foreign currency denominated assets. Canada recorded a net foreign debt position (on a market value basis) in the second quarter, reversing a net asset position posted in the previous quarter.