CANADA'S HOUSEHOLD DEBT MESS –

WHAT HAS CAUSED IT?

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Preface

Debt growth cannot be separated from the broad economic growth and therefore from the basic capitalistic model. Growth hungry capitalistic model needs fueling the economy whatever is the means. But when economies' growth becomes too much dependent on the financial progression, frequent excesses or outbursts become natural outcome endangering the legitimacy of entire system. These excesses or outbursts unfortunately entrap the real economy and human livelihood too. Canadian household debt excess is just one of those; if outbursts will have long-lasting adverse socio-economic consequences.

In the era of globalization and persuasion, macro triad – economic growth, consumerism and easy finance – has gone for decades in harmony with the micro level socio-economic environment where smoothening consumption at the earliest in a life cycle has become a social compulsion. Consumer credit, thus, has been one of the major strategies within the self-supportive economic structure in Canada as well as in many other rich capitalist countries.

Question is: whether Canada's household debt reaching about one-and-a-half times the income level is a new socio-economic normal or is it abnormal and a matter of concern? Answer is: even if higher debt apparently has become a new normal; but in a real world this normal is illusionary, unsustainable and has abnormally abysmal consequences. Why? Because: these are borrowed funds and have to be repaid with interest; while present and future income and employment uncertainty has higher certainty now, and asset markets, especially real estate, are not as reliable as they once seemed to be; another hard fact is that government is more in tango with the financial industry, one of the most influential and dominant of the our times, than the society; and in a case of crisis although sympathy might remain with the society but favor will certainly be with the industry, after all, it is a matter of economy, and above that, it is finance, with scaring 'fragile nature and contagious consequences'! In fact, household debt mess has already put all – the intention of the government, accountability of the regulators, credibility of the industry, and welfare of the society – at stake.

Given such a backdrop, present paper explores what has caused consumer credit to grow out of proportions. This is necessary, not to play any blame game, but to know how to clean the debt mess and to stop another one in the future.

1. Introduction

Household indebtedness has been ringing the alarming bells for some time now. Given the present economic conditions, it poses one of the highest risks to the domestic economy. If it turns unmanageable, it will not only derail recovery but also damage the economy through financial system's instability. Two main genies, financial system and consumption expenditure, which have sailed safely the Canadian economy through the global credit turbulence, might then turn villains and take the Canadian economy in a home-grown recession! That is why all – the government, central bank, regulators, finance industry, right & left policy advocates, consumers, credit rating agencies, and even OECD and IMF – are worried.

If exports and business investment do not fill the void produced by the household consumption and fiscal expenditure duo in future, overstretched households might pose a serious threat to the economy[1]. That too, when global economic and geo-political scenarios seem to be far from normalcy, and domestic conditions face imminent realities of hike in the interest rate and correction in the balance sheets of household and government sectors.

In fact, high debt levels limit the policy-choices and consequently the capacity to manage the economy of the government. At an individual level too, debt is a bondage to the extend it reduces debtor's financial freedom. Certainly, household debt has not reached at this level all of sudden and on its own. Present study tries to find out what has caused household debt to reach this troubling level. In the second part, household debt position will be described; in the third, potential risks will be discussed; and in the fourth, causes of indebtedness will be analyzed.

[1] "… eliminating the household sector's net financial deficit will eventually leave a noticeable $50 billion gap in our economy over two years. This gap can only be sustainably filled by additional exports and business investment." Carney (2012).

2. Debt Position: Level, Composition and Vulnerability

2A. Aggregated Debt

Canada's personal debt[2] was about $1.6 trillion as against disposable income of about $1 trillion in 2011. In the last two decades' period (1990-2010), personal debt has risen 262 per cent whereas disposable income has risen less than half of that i.e. 122 per cent (Table 1). And debt-to-income ratio has climbed from 91 per cent in 1990 to 153 per cent in 2011 (Table 1 and Graph 1). There are yet no breaks in sight.

To remind, debt-to-income ratio peaked at about 160 in US and UK when the recent debt-related problems started there; that peak had reached at a time when all other national and global economic conditions were relatively supportive. Now, timing does not allow the luxury of that high debt ratio in Canada, as national and international economies are struggling to get out of recession and experiencing one after another fiscal, geo-political and other shocks. Being small, open and export-oriented, Canadian economy cannot remain insulated from the global events. Domestically too, factors do not support much hope for higher employment and household income to cushion higher debt-to-income ratio and debt-servicing. Unemployment still remains high. A number of factors are expected to restrain the growth of labor income as well, including the withdrawal of fiscal stimulus, announced wage restraints by various governments and a slow recovery in average hours worked.[3]

Not to forget, debt is bondage to the extend it reduces individual/household's financial freedom. Also, any debt for consumption is a burden until it generates an equivalent repay-ability of a debtor directly (by present or future income, or spared resources from previous expenses, for instance mortgages replace previous rent amounts) or indirectly (by increased productivity).

2B. Disaggregated Debt: Category-wise and Period-wise

When total debt is divided into different categories, as in the table 1 and graph 2, more than 60 per cent debt seemed to have made of mortgages debt and rest by other two i.e. consumer credit and loans. Total debt increase has undoubtedly been very high during the recent decade of 2000s than the preceding decade of 1990s (Table 1). It rose by 112 per cent during the recent decade as compared to 71 per cent in the 90s.

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[2] Personal debt here is the outstanding balance of 'Persons and unincorporated business sector' held by financial institution participants of the Canadian financial system (i.e. chartered banks, trust and mortgage loan companies, credit unions and caisses populaires, life insurance companies, pension funds, special purpose corporations and non-depository credit intermediaries and other financial institutions). Unless mentioned, personal debt data are taken from Statistics Canada, National Balance Sheet Accounts: Data Tables, Fourth Quarter 2011.

[3] Bank of Canada (Dec 2010), p. 21.

Mortgages debt: It has risen by more than 253 per cent during these two decades from 1990 to 2010, that too when it had very high base; it has risen by 115 per cent during recent decade as compared to 65 percent during 1990-2000.

Consumer credit[4] and loans: The consumer credit category experienced the highest increase in all the three categories of debt which soared by 348 per cent over two decades' period, being 153 per cent during the recent decade as compared to 77 per cent during the 90s; and loans' category saw the lowest increase, especially in the recent decade, it has risen by 136 per cent during two decades, being merely 23 per cent during 2000s as compared to 92 per cent during the 90s. As a result of a shift in these two categories during last two decades consumer credit has overwhelmed loans. Consequently, share of former went up from about 23 per cent in the total debt in 1990 to more than 28 per cent in 2010 and loans' share came down from about 12 per cent to about 7 per cent during the same period.

Table 1: Canada's Personal Debt: Level and Composition, 1990-2011

(In millions $, unless otherwise indicated)

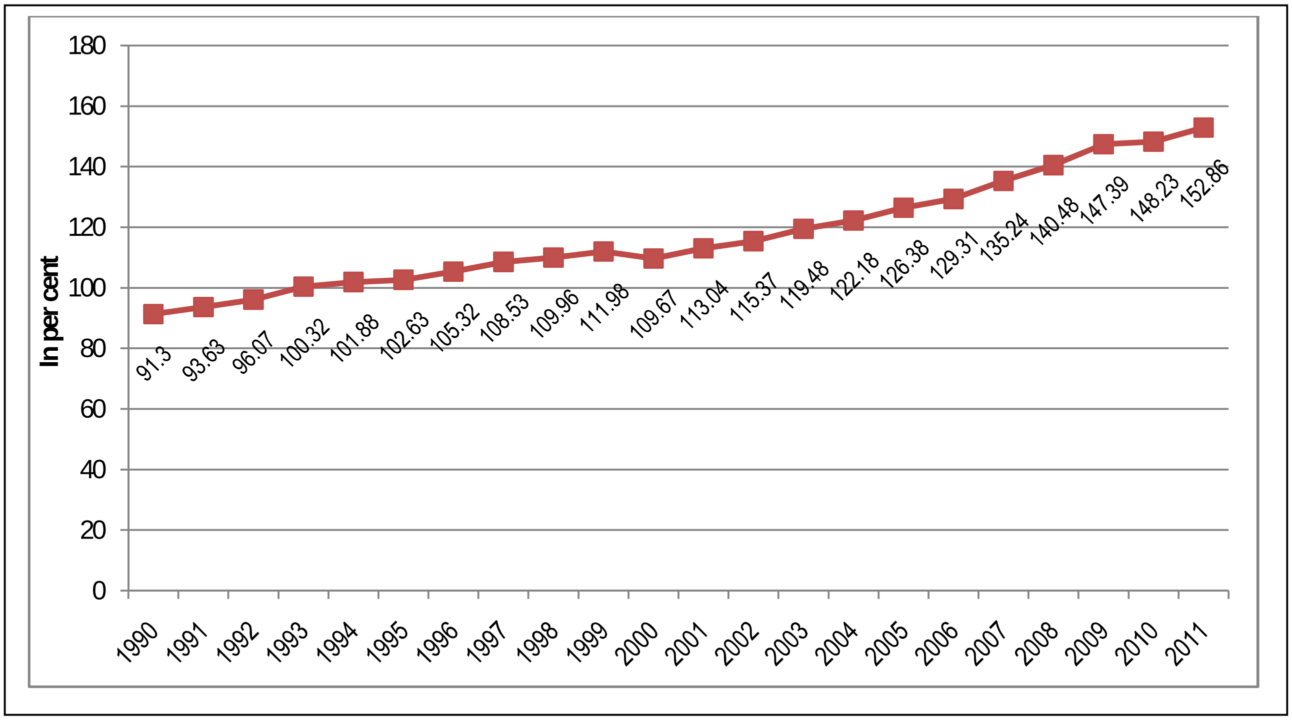
	1990	1995	2000	2005	2010	2011	% increase from 1990 to 2000	% increase from 2000 to 2010	% increase from 1990 to 2010
Total debt	415513	531248	708989	1013549	1504110	1594824	70.6	112.1	262.0
Consumer credit	97233	116713	172093	282716	435592	452418	77.0	153.1	348.0
Loans	47624	57089	91646	102213	112448	115245	92.4	22.7	136.1
Mortgages	270656	357446	445250	628620	956070	1027161	64.5	114.7	253.2
Ratio to total Debt (%)									
Consumer credit	23.4	22.0	24.3	27.9	29.0	28.4			
Loans	11.5	10.7	12.9	10.1	7.5	7.2			
Mortgages	65.1	67.3	62.8	62.0	63.6	64.4			
Disposable income	457400	519588	639567	794269	1013778	1046827	39.8	58.5	121.6
Debt to personal disposable income (%)	91.3	102.63	109.67	126.38	148.23	152.86			

Source: Statistics Canada, National Balance Sheet Accounts: Data Tables, Fourth Quarter 2011.

Mortgage debt does indicate over-exposure of the financial system. It used to be considered almost secured earlier, but now it carries a big question mark (especially, in the backdrop of recent credit crisis). Once exposed, it might make other types of debt, being even at low level, vulnerable and exposed. On the other hand, rapidly growing consumer credit has also been very risky, as most of its components are unsecured and trap consumers in a debt cycle with minimum payments and rolling facility etc.

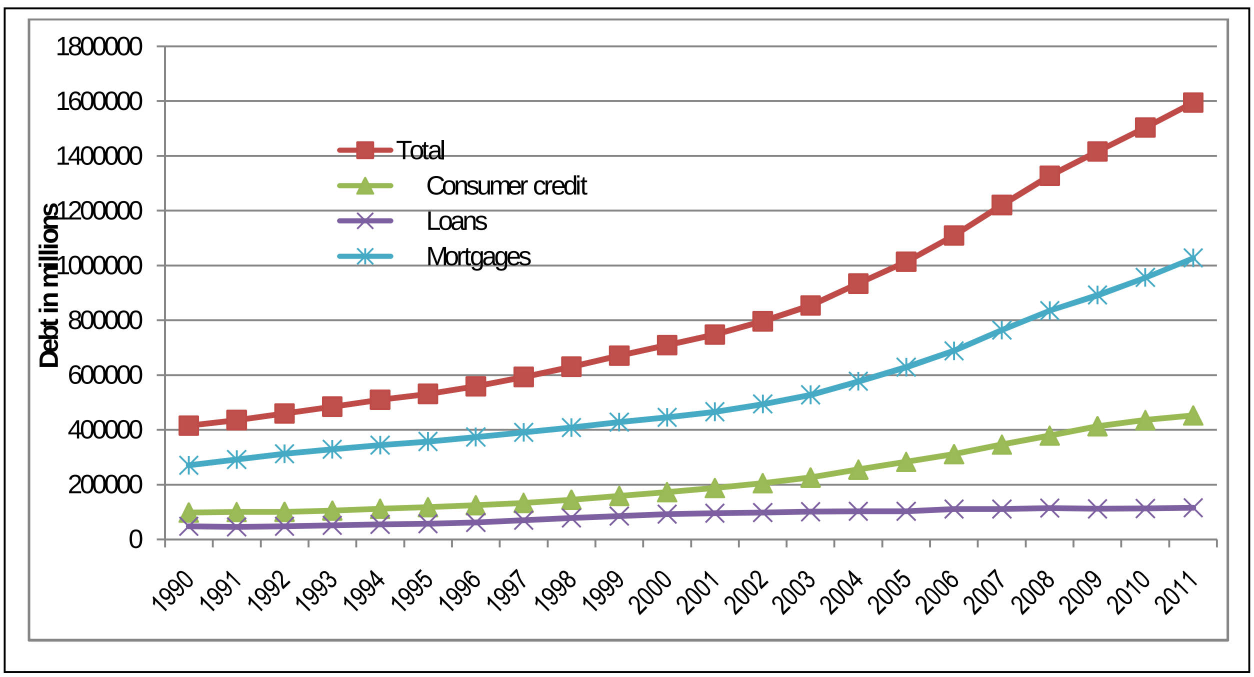
[4] Consumer credit includes credit cards, personal loan plans, lines of credit and other loans to finance purchases of consumer goods and services. Credit to purchase securities, financing of home renovations and to unincorporated businesses are excluded, these are included in the loans category.

Graph 1: Canada's Personal Debt as ratio to Personal Disposable Income, 1990-2011



Source: Same as Table 1.

Graph 2: Canada's Personal Debt: Category-wise, 1990-2011



Source: Same as Table 1.

2C. Vulnerability of Indebted Households

Given such a high debt level and debt-to-income ratio, some other indicators are used here to gauge whether households are vulnerable or not to the adverse shocks[5]. These are following[6]:

- aggregate debt service ratio (DSR)[7], that is interest plus principal repayment as a per cent of disposable income;
- share of vulnerable households, i.e. households with DSR more than 40 per cent[8];
- saving rate;
- liabilities-to-asset ratio;
- number of consumer bankruptcies; and
- average deficiency amount per bankruptcy. It is measured by dividing total deficiency amount (between liabilities and assets) with total consumer bankruptcies.

Two indicators, aggregate debt service ratio (DSR) and share of vulnerable households have been almost stable for the last 5-6 years – the aggregate DSR has been about 19 per cent and vulnerable households to be about 6 per cent (Table 2). Current low interest rate seems to have kept both indicators almost unchanged for the household sector, despite a continued strong increase in the debt level. As soon as interest rate rises to the normal levels, indebted households are going to feel a pinch, especially if income and employment conditions do not improve fast, because roughly 40 per cent of recent household debt was found at variable interest rates[9].

Liabilities-to-asset ratio has recently touched the historically highest levels in the period of half a century (Table 3 and Graph 3). During the last decade of 2000s, it reached an average of 52 per cent. It means that the liabilities have now been more than 50 per

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[5] See Part 3 of this study for these shocks.

[6] Some other indicators than those mentioned here, like "Mortgage arrears, consumer loan delinquencies,…and the share of the labour force that has been unemployed for 27 weeks or more have all been trending up in recent Quarters…. This suggests that stress continues to build in the household sector, which is typical following a recession." Bank of Canada (June 2010), p. 24.

[7] All else being equal, an increase in debt levels and debt-income ratio would put upward pressure on debt-service burdens of households. A rise in DSR, besides increasing vulnerability of households to the negative shocks, can also have potential adverse consequences for balance sheets of financial institutions. As according to Carney (2008) "Household credit makes up about 60 per cent of the Canadian banking sector's total loan exposure, so losses on household lending would likely have an immediate impact on capital adequacy and forward profitability."

[8] A "threshold above which households are considered to be financially vulnerable." Bank of Canada, (June 2010), p. 25.

[9] Current low interest rate environment has increased the attractiveness of variable-rate financing. As "microdata show that, as of the second half of 2009, roughly 40 per cent of household debt was at variable interest rates, which could increase household vulnerability as interest rates rise". Credit card debt is not taken into account in variable rate debt as this is generally at fixed rate. Bank of Canada, ibid. p. 25.

cent of all the assets together. After striking the peak of 60 per cent in the pre-crisis year of 2007, however it has retreated in the post-crisis years. Actually, this ratio might better be used along with debt-to-GDP ratio and saving rate to assess the sector's vulnerability. When debt-to-GDP ratio is very high (as already seen in the Table 1 and Graph 1) and saving rate is too low to repay the debt, liabilities-to-asset ratio might be examined to find the capacity to repay debt liabilities out of assets during any shock. Table 3 shows that saving rate has been the lowest at 3.6 per cent during 2000s as compared to 8 per cent in the 90s and 15 per cent in the 80s. However, reliability of the assets[10] may be questioned in view of the recent fragility and pro-cyclity of the asset markets, especially when the liabilities (debt) are fixed. Also, distressed asset markets (during any shock) with excess supply and low demand might underplay this liabilities-to-asset ratio as a repayability indicator. That is why, it is better to observe it (in the absence of a better indicator) in combination with other indicators. With the lowest saving rate, uncertain present and future incomes, and insecure future in light of volatility of asset markets and troubled pensions – such a high liability-asset ratio, not to forget the abnormally high debt-to-GDP ratio, indicates personal sector is highly vulnerable. Actually all these factors put a question mark on the solvency of the household sector.

Future vulnerability may also be evaluated from the present trend of financial difficulties. Number of consumer bankruptcies and average deficiency amount per bankruptcy may be used to gauge the same. As observed in the Graph 4, both are at the levels never seen before. Before 2002, bankruptcies remained below 80 thousands except two years of 1986 and 1987 (when these were 80 and 85 thousands respectively), between 2003 and 2007 these were below 85 thousands, but number touched 91 in 2008 and reached 116 thousands in 2009. Similarly, deficiency amount per bankruptcy was between 20 and 29 thousands before 2002, remained between 32 and 37 thousands during 2003-2007, but amount touched 40 thousands in 2008 and reached 44 thousands in 2009. This extraordinary rise in both may be seen as an effect of recession during 2008-2009 years. That is what has been the objective here to find out what will happen to the indebted households if any such negative shock takes place in future. Insolvent[11] households will go for bankruptcies which will affect the financial institutions if adverse economic conditions arise, and debt liabilities are too high to be repaid from income, savings, and/or assets.

[10] Liquid assets (balances in chequing and savings accounts, term deposits, GICs, etc.) may well be relied, but it depends on how many debtors have how much of these. Illiquid assets can be sold and those funds may also be used to repay the debt. However, in a systemic crisis, households may have difficulty selling off their assets without triggering a significant drop in prices. The price declines would aggravate the financial stress, especially if credit (like mortgages and line of credit) is tied to these assets.

[11] "If a household is unable to meet its debt obligations for more than three consecutive months, it is considered insolvent and its unsecured outstanding debt is considered a loss to financial institutions." Bank of Canada, Financial system Review, (June 2010), p. 61.

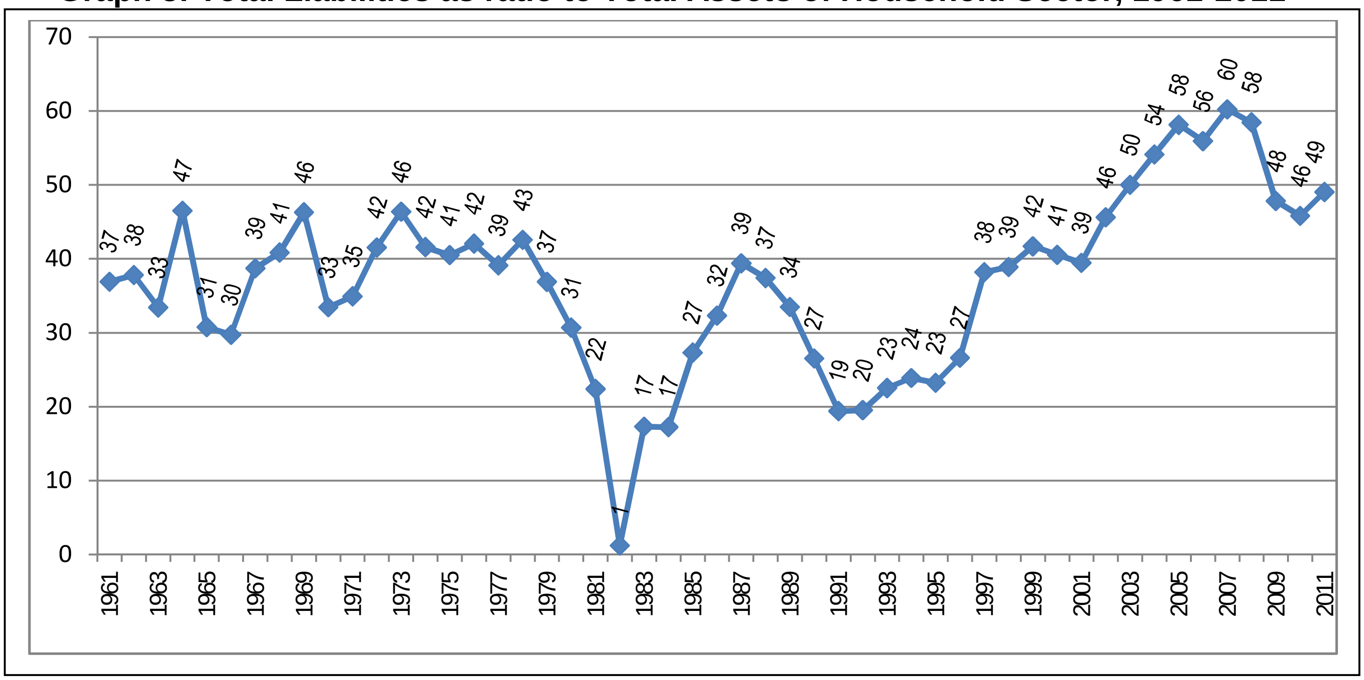
Table 2: Debt-service Ratio and Share of Vulnerable Households, 1999-2010

(Per cent)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010 (First 3 Quarters)
Debt Service Ratio (%)	20.3	21.1	21.2	20.7	20.7	19.9	19.2	19.4	18.8	19.0	18.5	18.6
Share of vulnerable households (% of households with a debt-service ratio above 40%)	7.2	8.4	8.3	6.7	6.9	7.0	5.9	6.5	5.6	6.2	6.2	6.5

Source: TD (Feb 2011), p. 7.

Graph 3: Total Liabilities as ratio to Total Assets of Household Sector, 1961-2011



Source: Statistics Canada, National Balance Sheet Accounts: Data Tables, Fourth Quarter 2011.

Notes: 1. Calculated from data on liabilities and assets from the Table 5: Sector accounts - Persons and unincorporated businesses

2. Includes data on unincorporated businesses also.

3. Assets include: a) non-financial capital acquisition (i.e. fixed capital, inventories and existing assets); b) net lending; c) transactions in financial assets (i.e. currency and deposits, Canadian debt securities, corporate shares and mutual funds, life insurance and pensions, other financial assets). Whereas, liability transactions include: consumer credit, bank and other loans, mortgages, trade payables.

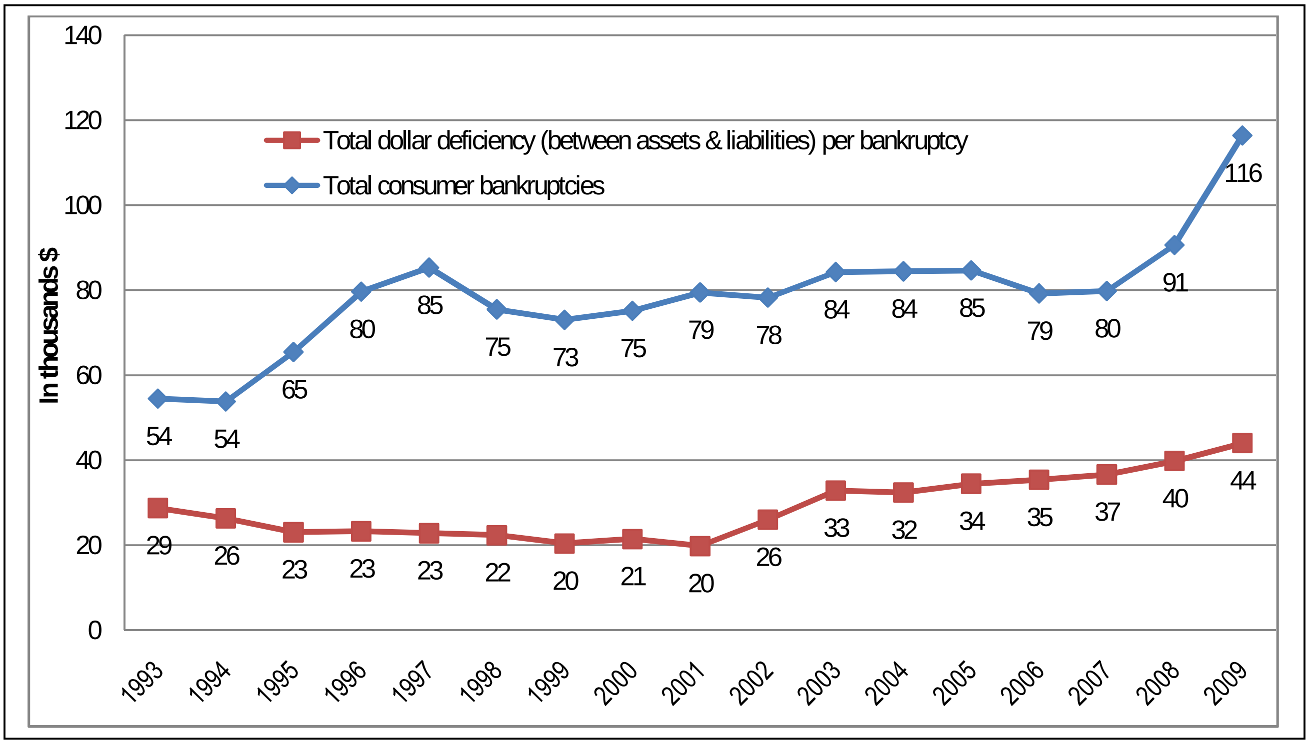
Table 3: Liabilities-Assets Ratio and Saving Rates of Household Sector, Decades' Averages during 1961-2010

(Per cent)

	1961-1970	1971 - 1980	1981 - 1990	1991 - 2000	2001 - 2010
Liabilities-Assets Ratio	37.5	39.6	25.5	29.5	51.6
Saving Rate	6.8	12.8	15.1	8.2	3.6

Source: Same as for Graph 3.
Notes: Same notes (whichever is relevant here) as for Graph 3.

Graph 4: Consumer Bankruptcies and Deficiency per Bankruptcy, 1993-2009

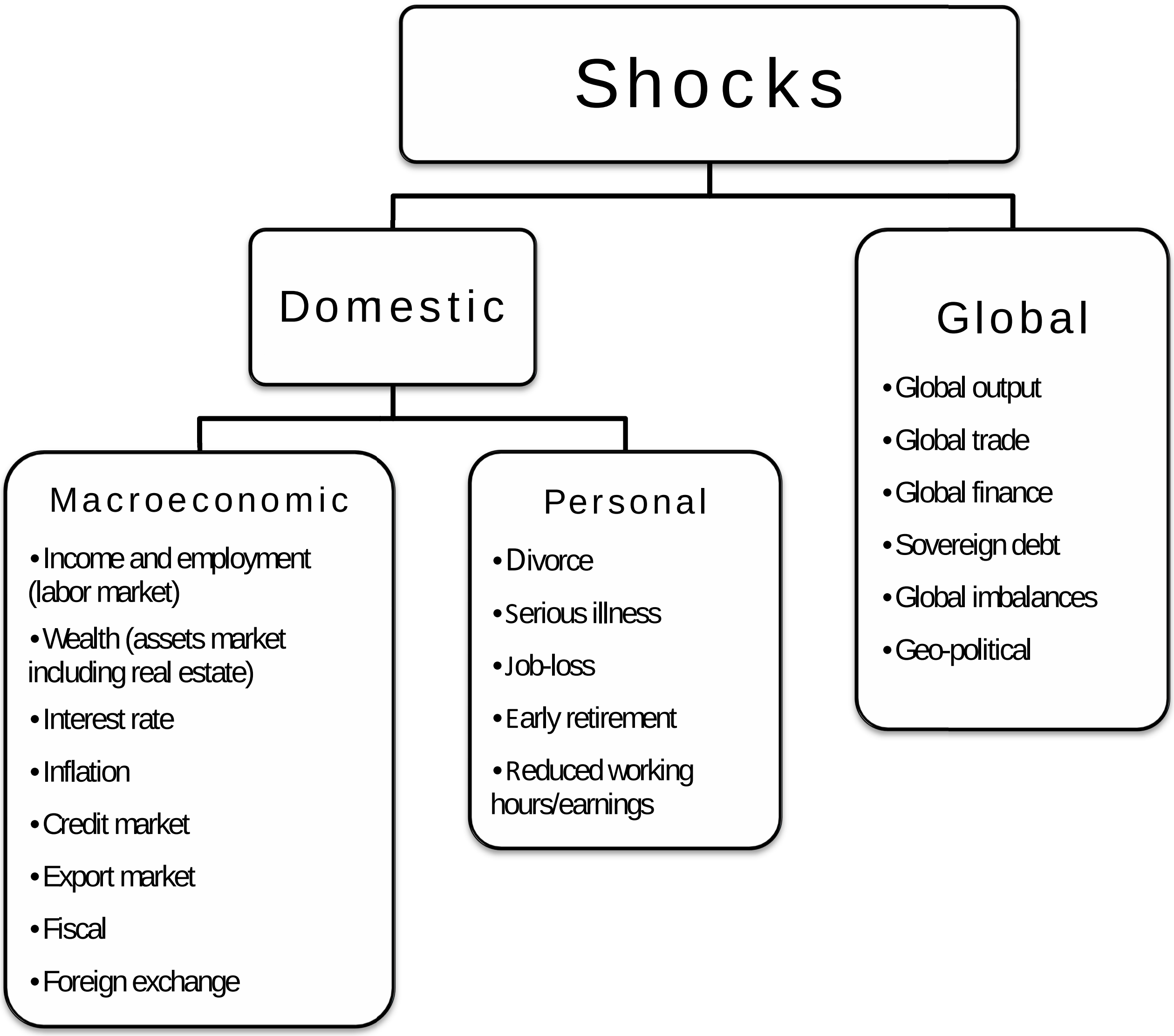


Source: Statistics Canada, Canada Year book, 2009 & 2010.

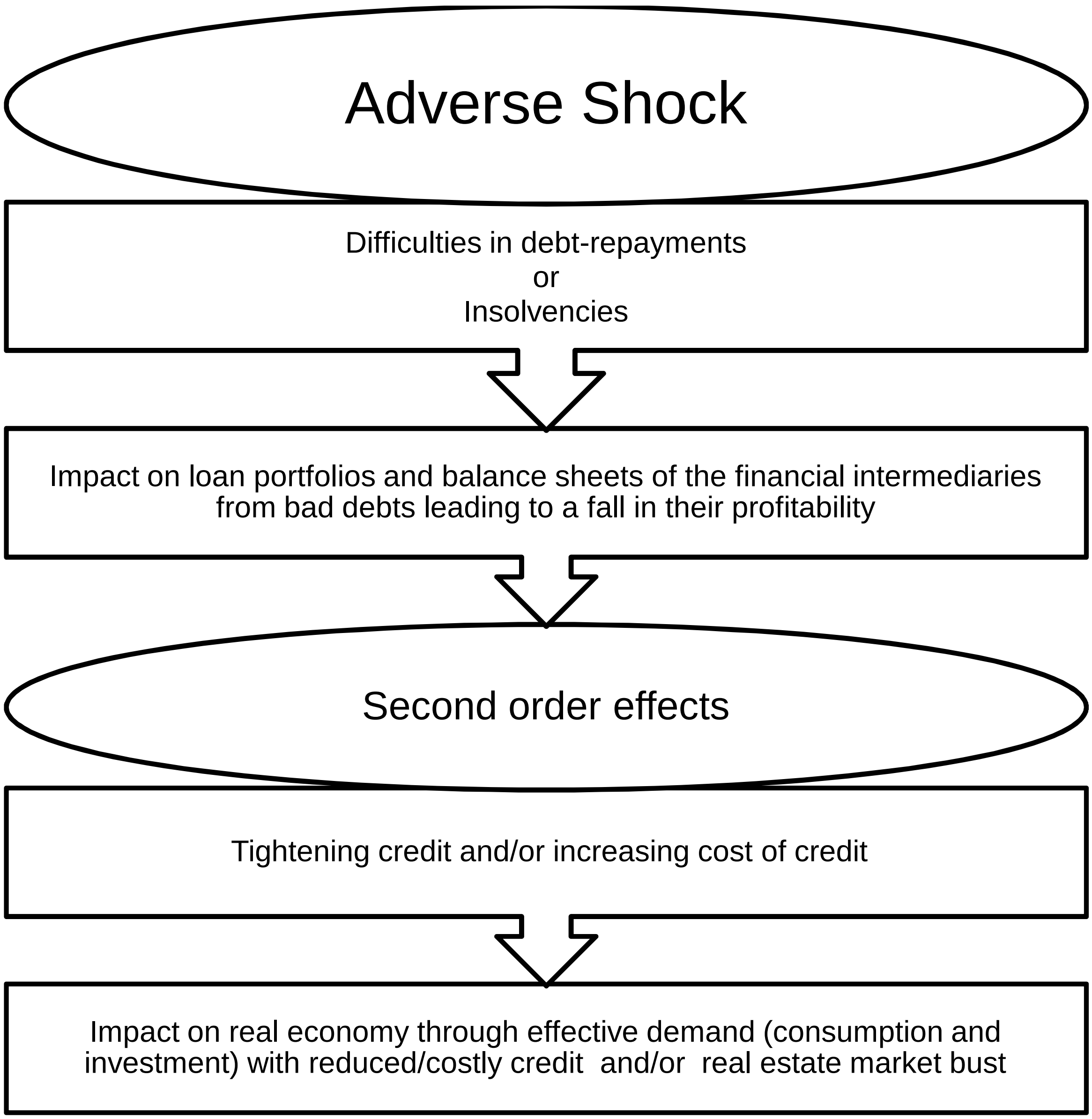
3. Risks

Without any doubt, debt level is too high in absolute and relative terms. It has made not only Canadian household sector but the entire economy vulnerable to negative shocks through over-exposed financial system. Economy will be saved from any future shock perhaps more because of absence of severity of shock(s) rather than resilience of the system. It is therefore worthwhile to examine those potential risks which can turn household-debtors' vulnerability into crisis. These potential shocks are listed in the Graph 5. How these shocks might work in practice is described in the Graph 6.

Graph 5: List of Potential Shocks



Graph 6: How Shocks might Work



As in Graph 5, a shock may be either global or domestic. Domestic shocks may further be personal or macroeconomic. Global shocks may take place due to any factors, like some of these being experienced currently, for example: global output shock due to fragility of the recovery especially in the developed economies; global financial system shock due to leveraged financial system; shock in global trade of goods and services caused by disruptions in either demand-supply or supply chains due to natural/economic/political/social/other reasons; sovereign debt shock as it is going in EU; shock may be due to global imbalances, as imbalances are already there in trade between China and other western countries; or geo-political shocks like ongoing unrest in the Arab world and changing global power equations. Any such shock(s) may cause economic problems, which would trickle down directly to the highly integrated and interdependent Canadian economy through one of the weakest link, i.e. indebted households. As Mark Carney (2008) puts "The household sector could be an important channel through which global economic weakness affects the Canadian financial sector more widely."

Domestic macroeconomic conditions are rarely static; these always vary, sometimes favorably and other times unfavorably. Any unfavorable macroeconomic condition(s) may shock the vulnerable household sector that the overleveraged financial system faces pooled repayment difficulties which may in turn affect adversely the entire economy. Labor market shock may lead to a fall in income and employment, wealth shock may lead to a fall in the value of assets like securities and real estate, interest rate and inflation shocks may lead to a rise in their respective rates, credit market shock may end up with credit contraction, sudden foreign capital inflows may end up with appreciation in Canadian dollar, changes in external factors may lead to a fall in exports, and fiscal shock may end up in different ways e.g. raising taxes or implementing other austerity measures to contain deficit. All these are not imaginary episodes, rather quite possible in prevailing economic and political conditions.

Personal shocks – e.g. divorce, serious illness, job-loss (irrespective of general labor market), early retirement (involuntary), reduced working hours/earnings – may affect directly the income or wealth and consequently the repayability of the households.[12] Such events might happen more frequently in an unfavorable economic condition or financially stressed environment. All these factors may make even those households vulnerable which were earlier thought to be non-vulnerable (aggregate debt-servicing ratio less than 40 per cent). Therefore a household with higher debt will have greater sensitivity to any personal shock and higher possibility of debt-difficulties.

As in the Graph 6, debt difficulties of the household sector, caused by domestic and/or global shocks, would affect adversely the loan portfolios and balance sheets of the financial intermediaries; which, in turn, would create second order effects through cost and/or availability of credit. Eventually the entire economy would suffer. Restoring the financial system to health becomes more difficult when recovery and growth prospects are already sluggish, as are currently being faced. There may be several exceptions to the Graphs 5 and 6. For instance: it is not necessary that there will be one shock at a time; one shock might also affect the economy through various channels; or even the only negative sentiments or potential threats may affect one market (say, real estate market) and through that it is passed on to other channels and the entire economy.

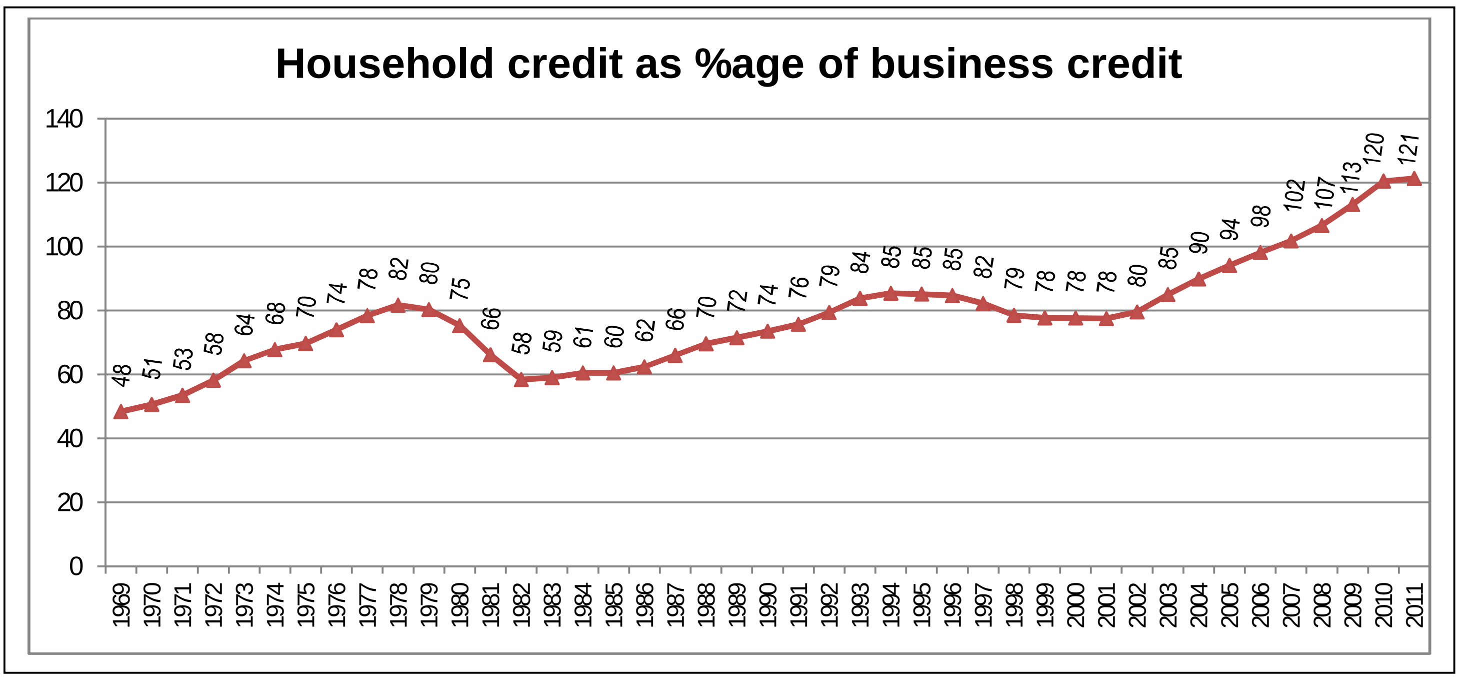
[12] "Significant events, such as a change in employment or income, a change in family status or a serious illness, can cause a huge drain on finances .... The combination of a large amount of debt and the sudden occurrence of a major life event could lead to the harsh realities of insolvency." the Superintendent of Bankruptcy James Callon warns. Isfeld (2011).

There are certain dilemmas policy-makers have been facing in such a debt-fuelled economy. In fact they are walking on a tightrope with respect to policy options. Although like any similar economy which is small, open, export-based and highly-integrated, regulators have anyway fewer options in their policy armor in the normal times; but prevailing circumstances have made it worse. All prices – prices of goods & services, commodities especially oil, forex rates, interest rates, and real estate prices – have been actually heading almost in an opposite direction than the desired one. Given the dangerously high debt levels, interest rate needs to be raised sooner than later; however domestic weak recovery and high unemployment, and global fragile conditions on the other horizon demand something else with respect to the interest rate. Whenever it will be raised, it is going to affect not only the cost of debts (especially the variable component) but also the credit availability (especially the roll-over components) to the debtors; the asset markets especially the real estate markets, foreign exchange market (resurgence in inflows as a result of hike in interest rate). It will unquestionably affect the entire economy through effective demand (consumption, investment, fiscal, and exports). Therefore, policy-makers have to be very cautious with regard to policy-choices.

4. Causes of Debt Growth

As already seen in the part one, household credit has been out of proportion with disposable income (about 153 per cent in 2011). Besides disposable income, it has also been out of sync with business credit crossing all historical levels during 2000s (Graph 7). Ratio of household credit to business credit has touched 121 per cent in 2011, as compared to less than 80 per cent (except 1978 and 1979 years) till 1980s and then hovering around 80 per cent during 1990s. Furthermore, a healthy credit market should have checks and balances within it, so that credit expand in the expansionary times and contract in the contractionary times. During previous recessionary sessions of 1980s and 1990s credit actually contracted, but during the last recession of 2008 it has not. The credit-countercyclity during recent recession[13] has proven to be a good shock-tharepy to bring a fast economic recovery; but now a burden as the alarmingly high debt level of the household sector has been posing one of the highest risks to the economy through recovery derailment and financial system's instability. What has caused debt to grow such dangerous levels? This part will dig into those causes through macro and sectoral factors.

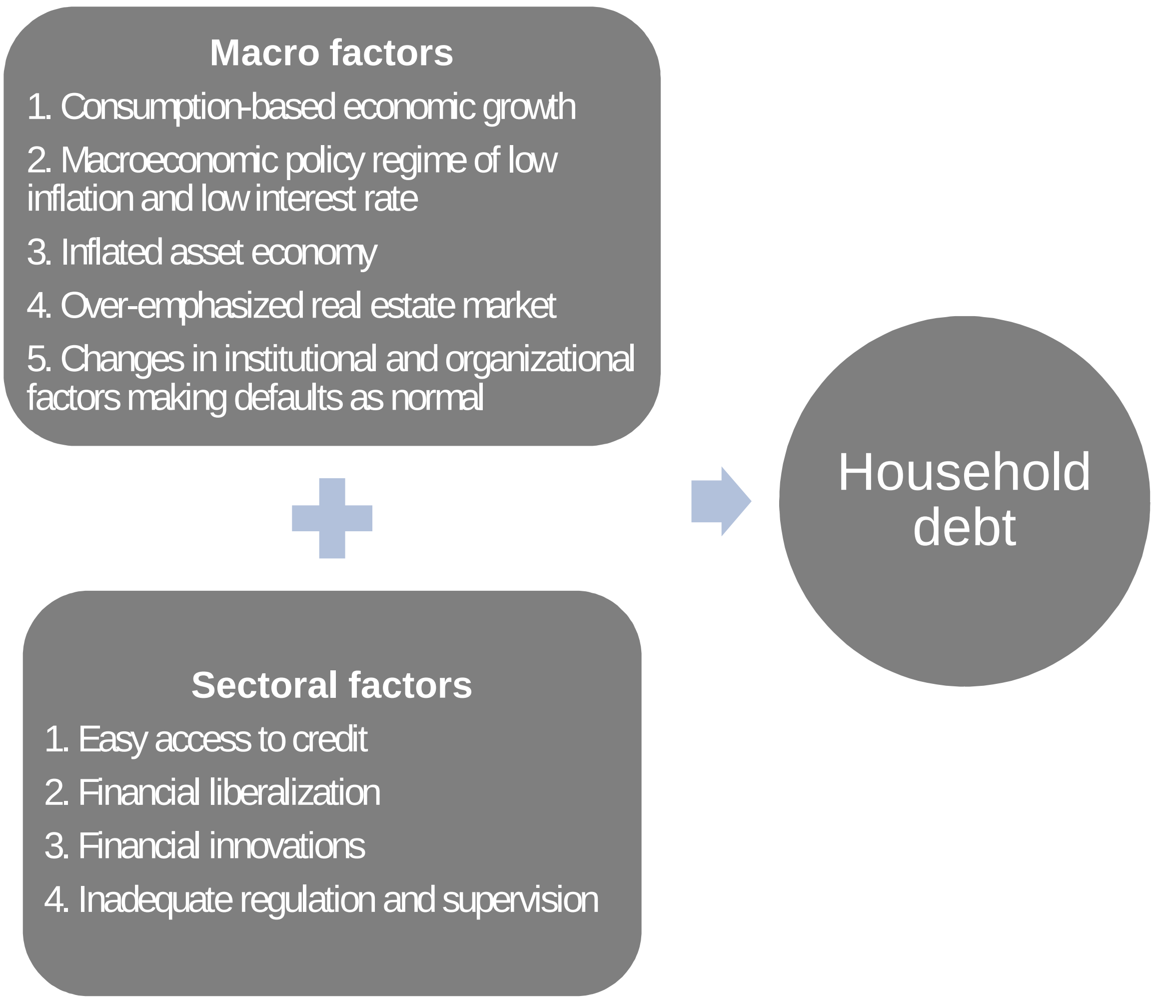
Graph 7: Household credit as %age of business credit, 1969-2011



Source: Statistics Canada, Canadian Economic Observer, March 2012 and also previous (various) issues.

[13] "Since the trough of the recession, household credit has grown about twice as fast as personal disposable income." Côté (2011).

Graph 8: Causes of Debt Growth



4A. Macro Factors

4A-I. Consumption-based Economic Growth:

Canada, like many other peer countries, seems to have followed consumption-based growth model. This model has worked through consumerism on the (households') demand side; and consumption driven investment, and consumer needs driven technological advances on the supply side. Economy's entire sectoral development, especially financial one, has also worked in tandem with this model. This makes household sector relatively significant in the economy during normal times as well as during bad times[14].

Stretched consumption, fallen preference for savings[15], and easy credit – have been among the major constituents of the structure. In our context, main element of this structure is that consumption is increasingly debt-financed. Actually, consumer credit has been one of the main factors that has facilitated households' stretched consumption and fallen preference for savings. As a quote from DBRS (2009) commentary suggests the same trend:

> Traditionally, debt was primarily used to build wealth and to finance durable goods. Since the 1990s, however, the ratios of both total household debt relative to net assets and consumer credit to consumer durables have exhibited upward trends that accelerated notably in more recent years, suggesting that a growing portion of debt is being used for consumption purposes. This situation is also evidenced by the Canadian personal savings rate, which dropped from a peak of 20.2% in 1982 to 3.7% in 2008. These metrics point to a change in consumer behaviour, which includes an increased preference for debt-financed consumption and a markedly lower appetite for savings.

End result of this growth model: businesses are satisfied with their huge profits; political-economy is satisfied with higher economic growth; but unfortunate consumers are left stranded in the debt-mess! This seems to be a part of the price society is paying for debt-financed consumerism!

4A-II. Macroeconomic Policy Regime of Low Inflation and Low Interest Rate

Monetary policy managers aiming to achieve greater stability in the economy adopted a strategy of low inflation targets that led to a low interest rates environment.[16] This has worked in three ways in creating higher debt levels:

- one, by generating credit-conducive environment on demand (borrowers) and supply (lenders) side;
- two, by facilitating consumerism; and
- three, by helping create the asset bubble.

[14] So, no wonder why policy-makers look at this sector to spend and rescue whenever recessionary forces emerge in the economy. Recent recession of 2008-9 was gentler and shorter than previous recessions of 1981-2 and 1990-1 largely because of household spending which contracted merely by 2 per cent during recent time than 6 per cent during previous recessions. "The strong recovery of household spending explains how overall demand has recouped its recession losses, despite exports and business investment recovering less than half their declines during the downturn." Côté (2011)

[15] Although active savings (i.e. part of disposable income put aside) seems to have substituted by passive savings in the form of assets appreciation, it cannot be a reliable source in light of frequent downswings in assets' markets, and also not everyone possesses those assets.

[16] Bank of Canada realizes the risks associated with the low rate regime as it was quoted by Côté (2011) "The Bank recognizes that low interest rates, while necessary to achieve our inflation target, create their own risks. Prudence on the part of individuals and financial institutions is the first line of defence against these risks. Supervision of financial institutions can also be effective in limiting excessive concentration of risk. The development and use of selected macroprudential tools constitute another line of defence."

Low inflation and low interest rates created stable and benign economic conditions that led households feel more optimistic for carrying higher debt loads. Quoting from a special report by TD (Oct 2010, p. 1) how it has worked on the demand side:

> The introduction of inflation targeting by the Bank of Canada in the early 1990s set the stage for a secular decline in interest rates that improved debt affordability. At the same time, these macroeconomic trends created a heightened sense of financial security among households. Low and stable inflation reduced the likelihood of future interest-rate volatility, while relatively stable growth in the economy and job market lowered the probability of layoffs and an interruption in household income – all of which made households more comfortable carrying greater debt loads.

On the supply side, two factors seem to have worked in creating huge debt given the low inflation and low interest rates regime in the economy. One, the same stable and benign economic conditions have made lenders feel complacent and overlook the risk. Two, business interests have led lenders make available excess credit, as low interest rate regime reduces the interest margin (difference between the lending and deposit rates) and consequently compresses the earnings of the banks and therefore induce banks to recoup their earnings by increasing their loan volumes.

But the basic question is: why consumers need to borrow so much at the first place even if inflation and rate of interest have been low. Consumerism and climbing assets prices partly explain that. In the age of persuasion, smoothening consumption at earliest in the life cycle appears to have become a social compulsion. How it has worked in creating household debt at macro level is already explained above in the 4A-I point. How assets prices and household debt accumulation are related is explained in the next point below.

4A-III. Inflated Asset Economy

Low interest rate environment, among other global and domestic factors, has inflated the asset economy which has consequently increased Canadian households' debt levels in two ways:

- one, these have made higher loans a compulsion to acquire these costlier assets; and
- two, with the wealth effect households increased credit through home equity loans, and also through increased limits against assets that became more valuable[17].

[17] "Movements in house prices can affect consumer spending in two ways: through a direct wealth effect implied by the life-cycle and permanent-income theories, or through a collateral effect, by allowing greater access to credit. Under the permanent-income theory, households perceive their houses as wealth, and base their spending decisions in part on movements in net wealth positions. As well, if access to credit for some consumers is contingent on their housing wealth or equity, these credit-constrained households will be able to borrow and spend more, based on an increase in the collateral value of their homes." Flood et al (2008), p.31.

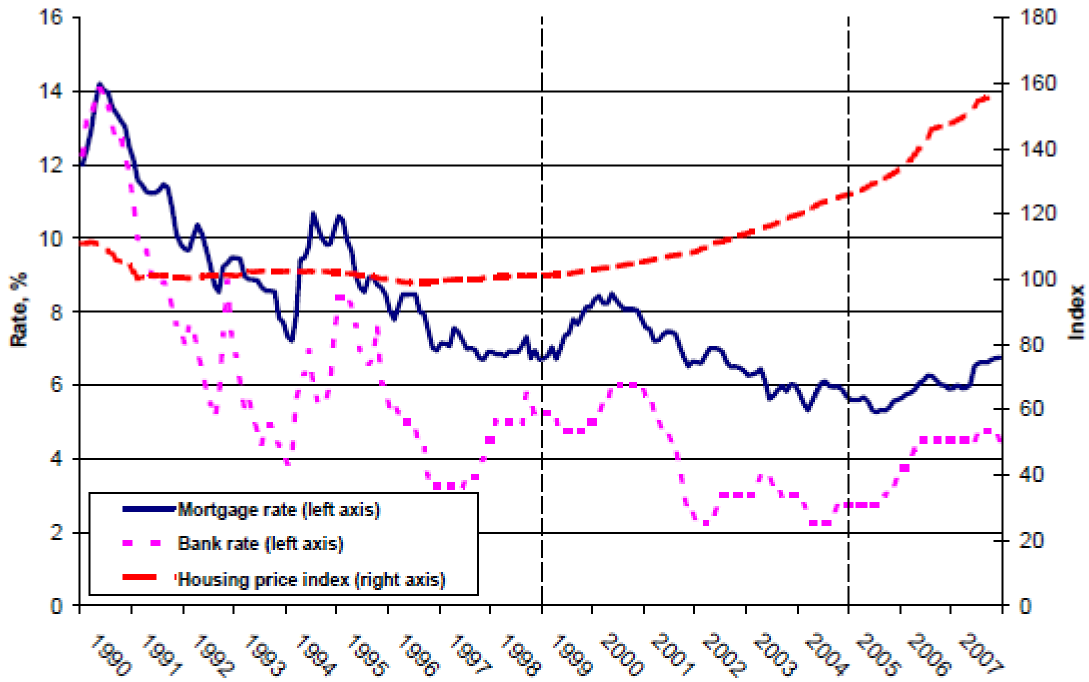
As these assets' prices have no direct influence on inflation indices, inflation rates have comfortably been kept low. A tango of – low inflation, low interest rates, and inflated asset markets – has been working well for years. Nonetheless, tango gets derailed by a rupture in the asset market(s) resulting downfall in the entire economy once or twice in a decade. After all, credit market cannot differentiate between the speculation demand and genuine demand.

4A-IV. Over-emphasized Real Estate Market

Real estate has become one of the dominant markets in the Canadian economy, as it has in other peer economies. In 2009, housing-related spending was over one-fifth (20.1 per cent, totaled $307 billion) of total GDP[18].

Low interest rate regime has been filtered in the real estate economy through low mortgage rates and rising housing prices. These are shown in the Graph 9. Low mortgage rates have attracted households to take on debt. But rising real estate prices have encouraged households to take on larger amounts of debt due to two reasons (as already mentioned above in 4A-III in the context of assets in general): higher borrowing to acquire those costlier houses, and due to wealth effect.

Graph 9: Mortgage Rate, Bank Rate, and Housing Prices



Source: Meh et. al. (2009), p. 27. Graph is reproduced here with the due permission of the authors.
Note: Housing price index is the monthly national new-housing price index produced by Statistics Canada.

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[18] Canada Mortgage and Housing Corporation (2010). Chapter two: Housing and the Economy. p.17.

Actually real estate market is not as simple as it seems; it has several hidden undercurrents which determine it. So debt associated with this complex market requires much more than the simple explanation. With respect to the real estate market dynamics, two following points are relevant to the analysis in present context here:

1. Policy-makers favor this sector because it provides homes to the public and generates investment, income, employment, and tax revenues in the process in the economy. However there are several players who over-emphasize the significance of this sector and want the activity to go on (in one direction only) in the market. This may serve those players' vested interests but not the national interests. Household debt-mountain is just one of those outcomes which are not in the national interests. (See Box 1: Political Economy of Real Estate)

Box 1: Political Economy of Real Estate

As different from other asset markets, real estate market produces more visible investment and employment results[a] and that is why supported undisputedly by the political-economy. In fact a nexus of all its players with their vested-interests has made it one of the most-wanted sectors. These players are banks, regional co-operatives, credit unions and trusts, real estate equity funds, insurance companies, mortgage/brokerage companies, speculators, investors, real estate developers, construction companies, real estate brokers, real estate related institutes[b], and politicians[c] besides others. Even policy-makers do not remain untouched by the attraction of this sector as "revenues from real estate transactions (including construction-related income and excise taxes) have an important impact on a country's fiscal position."[d] Furthermore it is in the interest of these players if prices keep rising because appreciation keeps fueling their revenues on the one hand, and higher returns keep justifying more investment on the other hand.

Although such overemphasis is at the expense of the balance in the macro economy as it leads to: one, the mal-investment in the economy at the cost of investment in productive infrastructure and/or other sectors because of rate of return misalignment; two, macro economic instability through business cycles; three, unsound financial system due to over-exposure[e]; and four, last but not least in our present context, household indebtedness driven by this market.

[a] It employed 6½ percent of the Canadian workforce (over 1 million) in 2009 and contributed to growth an average annual of 0.3 percentage points between 1997 and 2007. Batini et al (2010), p.5.
[b] Training the professionals like property managers, sales and leasing professionals.
[c] They are benefitted from activities like, receiving donations, creating vote bank from increased employment and economic growth, and sometimes getting benefits directly from the real estate business.
[d] Batini et al (2010), p.5.
[e] "Mortgages and other real-estate related assets also represent an important component of financial institutions' balance sheet (almost half of chartered banks' loans), implying that housing market developments could have important implications for the health of the financial system, including profitability and soundness." Tsounta, Evridiki (2009), p.4.

2. It is not like other commodity-market that demand and supply are determined merely by use-value. In fact, it has investment value too, which bears rate of return depending on prices of a real estate. So speculators/investors have much more interest in this market than that of the real home-buyers. All these things contribute to make this sector self-propelling and pro-cyclical (see Box 2: How Real Estate Sector is Self-propelling and Pro-cyclical). However, contrastingly, during the current economic downturn this sector has remained buoyant and thus counter-cyclical; it is perhaps because of historically low interest rates and surplus money (especially with the financial institutions considering the squeezed investment avenues in the given depressed economic environment).

Box 2: How Real Estate Market is Self-propelling and Pro-cyclical

Investment motive plays a very important role in buying behavior in this market. This is when the decision of buying a property is predominantly based on the expectation of making a capital gain. That is why it is actually a self-propelling market, i.e. rising prices-profitability-activity, or in reverse. This leads to boom-bust cycles that also coincide boom-bust cycle in the macro economy. As described by a report (November 2010, p.38) of Canadian Association of Accredited Mortgage Professionals[a]:

> At the peak of the US housing market in 2006, perhaps 20% of sales were driven by the investment motive. This created a self-reinforcing upward cycle – that is, a bubble. When that bubble burst there was inevitably a reverse of the investment motive – call it a "panic motive" – where buying was deterred by fears of future losses of values. The author estimates that at present in the US sales are 40% lower than they would otherwise be (based on job market conditions and affordability).

How these cycles have worked in the Canadian economy:

> Research by the Organisation for Economic Co-operation and Development (OECD) found that house price cycles averaged nearly seven years of expansion and four years of contraction in Canada over the period 1970 to 2007. The OECD estimates that the most recent upturn in Canada's housing markets began in late-1998 and ended in late-2007, and was accompanied by a rise of about 72 per cent in inflation-adjusted house prices, which amounts to an average yearly real price growth rate of about 6.2 per cent. By comparison, the previous expansion from early-1985 to early-1989 was marked by a 66 per cent real price gain over a four-year period, or an annual yearly real price growth rate of 13.5 per cent.[b]

[a] "Annual State of the Residential Mortgage Market in Canada" by Will Dunning, CAAMP Chief Economist.
[b] Canada Mortgage and Housing Corporation (2010), p.23. Source there-in is quoted as:
"Christophe André, "A Bird's Eye View of OECD Housing Markets". *OECD Economics Department Working Papers No. 746,* Paris: Organisation for Economic Co-operation and Development, 2010. ideas.repec.org/p/oec/ecoaaa/746-en.html (July 12, 2010)."

4A-V. Changes in Institutional and Organizational Factors Making Defaults as Normal

Because of changes in institutional factors, defaults are no more considered as social taboo as it used to be in the 1950s or 1960s. Changes in organizational factors have also made defaults a strategic move than its earlier version of desperate move. It has now been treated as a benign phenomenon and dealt with full understanding and support. Financial industry now includes other players too, unheard earlier, which are involved in parallel activities such as credit management, credit repair, credit consolidation etc. Thus, filing insolvency or declaring bankruptcy which used to build a check on accumulating higher personal debt levels does not work now. All this has led to a behavioral shift towards credit.

4B. Sectoral Factors

4B-I. Easy Access to Credit

The favorable financing environment – marked by relatively low interest rates [19], aggressive lending practices by the lenders, innovative financial products, relaxed mortgage terms, deregulation[20] and relaxed credit constraints[21] etc – has played an important role in the easy access to credit. Credit has been made more accessible and more attractive, for instance, through:

- home equity loans
- accommodative mortgage terms and conditions[22]
- lines of credit[23]
- increasing existing credit limits[24]
- pre-approving people for credit products[25]
- increased limits and incentives on credit cards issued by competing financial institutions

4B-II. Financial Liberalization[26]

Reforms in the Bank Act during the 1980s and 1990s deregularlized and liberalized the Canadian finacial sector, which resulted:

- more activity in the lending-market (by banking – domestic and foreign, and non-banking organisations);
- more competition in the credit market. The impact on pricing was limited than the impact on the supply of credit as institutions fought over market share;

[19] Already explained in point 4A-II.
[20] TD (Oct 2010), p.3.
[21] ibid.
[22] Three major changes helped make mortgage credit more available and attractive: first, reduced required down payment to qualify for mortgage insurance; second, eased qualification requirement for mortgage insurance; and third, increased maximum amortization period boosting the affordability. ibid.
[23] These are relatively dubious (especially, the unsecured ones and those with the variable interest rates) than conventional loans as these require a monthly repayment that is minimum of just the amount of interest owing.
[24] Sometimes even without being requested to do so by a customer.
[25] Like, sending blank credit cheques at reduced rates or even 0% rate.
[26] Discussion here is largely based on TD (Oct 2010), p.3.

- aggressive lending practices employed by the lending community to gain the maket share; and
- increased competition helped spur significant financial innovation that made credit more attractive.

Not to forget, these changes took place during a favorable period of lax global financing conditions (ample liquidity driven by low international interest rates and high risk tolerance).

4B-III. Financial Innovations[27]

Innovations in the financial space have also made credit easy and attractive for the borrowers, and cheaper for the lenders. This has also contributed to debt growth. Following are some such innovations:

- *Financial products*: like, home equity lines of credit (HELOCs); credit cards categorizations catering to different target groups and needs, and also various promotional offers[28] to the card-holders.
- *Financing processes*: like innovations in the ways financial institutions fund mortgages and other loans, the automation of credit approval and widespread use of standardized credit scoring.
- *Funding instruments*: e.g. securitization of mortgages and other loans lowered funding costs for financial institutions.

4B-IV. Inadequate Regulation and Supervision

Although Canadian financial financial system's risilence[29] during the 2007-8 crisis was well appreciated all-around, household sector's outsized debt has also been constantly in the focus of attention. Amid concerns on household indebtedness, especially mortgage debt, some regulatory changes[30] have been brought about in steps. But there is no end in sight yet.

In the market-economy framework, such an over-leverage of financial system may be due to either over-reliance on market forces or lax regulations/supervision. If it is over-reliance on the market forces, then over-leverage represents clearly the case of market

[27] Same as in above footnote.
[28] That encouraged card holders from various social strata (sometimes many of them having no financial literacy whatsoever) to carry large monthly balances.
[29] See Box 1.3: Canada's Financial System Resilience: What Can Others Learn? IMF (April 2011b), p.13.
[30] Between 2008 and 2012, Department of Finance has announced four rounds of changes in the mortgage lending. "The latest action reduces the maximum amortization on CMHC-insured loans from 30 years to 25 years. Minimum downpayments remain 5%, but the maximum refinancing (via a mortgage or home equity line of credit or HELOC, or a combination of the two) has been lowered from an 85% to 80% loan-to-value ratio. In addition, the Government has limited the gross debt service (GDS) ratio to 39% and the total debt service (TDS) ratio to 44%.... In addition, borrowers purchasing homes at or above $1,000,000 in price will no longer be eligible for a CMHC-insured loan...." Cooper (2012) p. 1.

failure.[31] Even indusrty managers supposedly know it, as one banker was reported[32] as saying:

> ... it is impossible to expect any bank to crack the whip on borrowers because "market share loss is perceived as a strategic loss, not just a numerical or dollar loss."

Actually, market does not work efficiently in a real world that is full of imperfections, imformation asymmetry, and also unequal power distribution. Therefore onus of protecting the system has to be on the regulation and supervision[33]. Now two points raise question mark on the efficacy of regulation and supervision in Canada too:

a) if financial organizations are working within so-called prudent regulations and effective supervision and yet have the excessive leverage; and
b) this over-leverage has not occurred all of sudden, in fact it has developed over the years and yet on an increase.

These clearly indicate that there is something wrong with the regulations and supervision[34].

To add, such an over-leverage of the financial system to the household sector in recent decades is not unique to Canada. It has been making a dent in other developed countries[35], for example – (alphabetically) Australia, Netherlands, Spain, South Korea, UK, US. In fact, back in 1991 Basel Committee, on the issue of over-exposure, recognized in a paper[36] that a "significant proportion of major bank failures have been due to credit risk concentration of one kind or other" and expressed the "need to address what is probably the major single cause of bank failures...."[37]

Therefore, financial organizations' over-exposure and excessive risk taking behavior in Canada raises some potential issues questioning the inherent nature of regulatory and supervisory system[38]:

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[31] "The business of banking involves leveraged intermediation managed by people subject to limited liability and, typically, to profit sharing contracts. This combination is well-known to generate incentives for risk-taking that may be excessive..." Chow and Jay Surti (2011), p. 3.
[32] Kiladze (2010).
[33] "...objective of banking supervision...firms being sufficiently safe and sound to ensure the stability of the system." Tucker (2011) p. 5. In other words "...framing microprudential regulation and supervision to deliver macroprudential objectives." Ibid., p. 6.
[34] Traditionally, bank supervisors worked to reduce the probability of firm failure. They did so, of course, because of the costs of failure. Yet they did not spend much time working out how to handle a firm's failure in the event of prophylactic supervision proving insufficient. That was a major problem in the very conception of prudential regulation and supervision, going back decades. Ibid., p. 4.
[35] Davies (2009), Graph 2, p. 20; and Roxburgh et al (2010), Exhibit 3, p.12.
[36] Bank for International Settlements (1991) "Measuring and Controlling Large Credit Exposures", paragraphs 1-3. Above source and relevant quote in the text has been taken from Morris (2001), p. 6.
[37] Same as above.
[38] Present regulatory model has rested largely on transparency, disclosure, and market discipline.

4B-IVa. Potential Issues with the Regulation

- Is it a problem of low regulation, or excessive dependence on self-regulation or/and market discipline?
- Is this over-leverage a moral hazard that lenders have taken excessive risk presuming that government or central bank or other will save if anything goes wrong with the household sector leverage?
- Is it a problem of static nature of regulations that it cannot trace dynamically the stress or exposures at building stage?
- Is it a problem of regulations that they do not have proper in-built system of checks and balances?[39]
- Is it a problem with micro-level financial indicators that do not capture the macro-level vulnerability?[40]
- Is it a problem with the regulations which might work well for the institutional soundness or solvency but may build systemic risks[41] within the overall financial system and macro economy in which those institutions are merely a part?[42] If forest goes under fire, trees (whether weak or strong) cannot be saved!

4B-IVb. Potential Issues with the Authority

- If regulators and supervisors are less-equipped with tools and methods to detect excessive systemic risk build-ups?[43]
- Is it an illusion problem that genuine and bubble growth especially in the asset markets are not differentiated?[44]

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[39] Something like a dynamic and forward-looking provisioning system as introduced by the Bank of Spain in 2000 to cope with credit risk. "The system was intended to account for "latent" risks of homogeneous categories of assets that could lead to expected levels of losses over the business cycle. Provisions were tied to the growth of assets and accumulated in a fund, which could be used to cover loan losses." IMF (Oct. 2010), footnote, p. 61.

[40] "However, one must keep in mind that this indicators-based approach is imperfect and can fail to take into account key vulnerabilities. A concern is that such a set of indicators may give a positive assessment of the health of the financial system precisely when the system is most vulnerable." Ibid., p. 57.

[41] "...systemic risks include those attributable to structural features of the financial markets (including the payments infrastructure) or the distribution of risk within the financial sector, and unsustainable levels of leverage, debt or credit growth." IMF (July 2011b), p. 11.

[42] Financial system is then microprudential but not macroprudential. "Microprudential policy aims to reduce the probability of default of individual institutions, taking systemic risk as given, whereas macroprudential policy aims at containing risks for the financial system as a whole, to prevent the economic and social costs of systemic financial distress, considering the feedback effects that the behavior of individual institutions have on each other, and on the whole economy. What could be enough to safeguard a particular institution from a narrow perspective (say, by limiting its credit to improve its capital adequacy ratio) might not be enough (or excessive, depending on circumstances) once spillovers to the economy and other players are considered." IMF (Oct. 2010), p. 57.

[43] "the right tools could have identified the unsustainable buildup of leverage.... Policy makers should work toward developing a robust system for tracking leverage at a granular level across countries and over time." Roxburgh et al (2010), p.14.

[44] "...although it may be difficult to identify asset bubbles based on price movements, the growth and nature of leverage may serve as a good proxy...." Roxburgh et al (2010), p.14.

- Are macroeconomic conditions not integrated in the financial regulations and supervision?[45,46]
- Is it inaction for fear of blame of 'over-reaction' that the supervisory authority does not react at early stage of build-ups of risks? They feel safe by letting flow to run its own way until it gets out of control.
- Is it a matter of corporate profit versus social benefit – by favoring the micro-prudential rules and generally avoiding the macro-prudential rules (under power groups' pressure or other political economic factors) considering later as a cost on the financial institutions (costly for financial institutions though bears social benefit in the form of financial stability and sustainability)?

Whatever potential issues are (in fact, this is a subject matter of an independent intensive research), however these simply point out that there are gaps in the regulation and supervision which need to be plugged so that such an excessive risk-taking or over-exposure can be avoided at least in the future.

[45] "The global crisis has highlighted the potential force of financial and real sector interactions. This calls for attaching greater importance to systemic risk in policy analysis and incorporating a macroprudential perspective in policymaking. Current macroeconomic and microprudential frameworks have limitations in identifying and managing systemic risk. They may fail to identify or appropriately handle financial excesses or adverse shocks that pose a risk to the financial system and the economy as a whole (for example, excessive risk taking, overly abundant capital inflows). In this regard, tackling systemic risk represents a new priority for policymakers, with the Lehman collapse as a clear reminder of its potentially non-self-evident nature." IMF (Oct. 2010), p. 55.

[46] "As part of our research for the renewal later this year of our inflation-control agreement with the Government of Canada, the Bank is examining whether there may be cases in the future where monetary policy should play... by taking pre-emptive actions against building financial imbalances." Côté (2011).

5. Conclusion

Household debt has been in a mess. It is out of all proportion to the personal disposable income, business debt, and other safe limits as examined from the vulnerability indicators. Decade of 2000s has seen bigger leap in debt than the preceding one; debt-to-income ratio was about 91 per cent in 1990, 110 per cent in 2000, but reached 153 per cent in 2011. Mortgages dominate the debt landscape as these comprise more than 60 per cent of total debt, whereas other two categories, consumer credit and loans, rest of it.

It has made not only Canadian household sector but the entire economy vulnerable to the negative shocks through over-exposed financial system. Any trigger from domestic or global arena can blast the debt-bomb. It poses one of the highest risks to the Canadian economy through recovery derailment and financial system's instability.

Household debt has blown at such an unsafe level as a result of multiple factors at macro and financial sector level. Macroeconomic factors which can be held responsible for it are: (policy-related, like) consumption-based growth, and low interest rate; (consequent of biased policy-choices, like) inflated asset economy, and over-emphasized real estate market; and (other factor, like) changes in institutional and organizational factors making default as normal. Whereas sectoral level factors held responsible are: easy access to credit, financial liberalization, financial innovations, and inadequate regulation and supervision.

Apparently, debt is a financial manifestation of income-expenditure imbalance of the household sector. Policy-makers' affection for consumption-based and assets-led economic growth on the one hand and low interest rate and easy credit, however without adequate regulation and supervision, on the other hand have been at the heart of the household sector's imbalance. Such options may fulfill policy-makers' higher economic growth aspirations through easy and quick means --- but with costly outcomes of instability, imbalances and mal-development. If traffic red-lights are necessary to control the traffic and eliminate the accidents; adequate financial regulations are more than necessary to control the exposures and eliminate the imbalances and instability in the economy. Market discipline and self-regulation are rarely effective in a profit-hungry self-interested business world, especially in the financial world where there are no visible limits on the activity, speed and consequences.

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