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**SPECIAL STUDIES**

# SPECIAL STUDIES—RISING HOUSEHOLD DEBT: A LONG-RUN VIEW

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## **Introduction**

On many measures, household debt is at record high levels, raising concerns among policymakers, analysts, and the business press that households are financially overextended. Much of the popular analysis of recent developments relies on anecdotal evidence and an appeal to the data on short-run trends in the growth of household debt. Analysts point to the run-up in total household debt over the past few years, the recent rise in the ratio of debt-to-income, rising personal bankruptcy rates, etc., to infer that a large percentage of households are in financial and economic peril. There are indeed worrying questions about the nature and scope of household debt. This article argues, however, that the typical appeal to “the data” provides insufficient evidence on the dimensions of the “household debt problem,” and indeed ignores important information about the fundamental factors underlying the growth of household debt.

The article is organized as follows. Section I briefly reviews significant dimensions of the recent rise in household debt, showing why it is commonly asserted that rising household debt places the economy in “dire straits.” Section II reconsiders recent trends in household debt in the United States in the context of long run trends, as well as in comparison to trends in other developed countries. Section III takes a broad view of the growth of household debt, examining two sets of factors underlying its growth: changing attitudes toward consumer borrowing, and financial innovations. Section IV concludes.

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\* The views expressed in this article are those of the authors alone, and do not necessarily represent those of the Office of the Comptroller of the Currency (OCC) or the U.S. Treasury Department. The authors wish to thank David Nebhut and Mark Levonian for helpful comments, and Rebecca Miller for editorial assistance.

## I. Recent Trends in Household Debt

A popular perspective on recent significant increases in the level and growth of household debt is that a significant percentage of households are in financial crisis.<sup>1</sup> Proponents of this view fear that many households have debt obligations they cannot sustain, and/or that widespread default would result in the event of a shock such as an increase in interest rates, a drop in house prices, or an economic downturn (in particular with rising unemployment, and hence a drop in incomes). Such a turn of events would result in an economy-wide downturn and/or significant banking system instability.

A review of recent trends in household debt seems to support this “dire straits” perspective.<sup>2</sup> Figures 1 and 2 illustrate two key dimensions of the rising trend in household debt on which commentary has been focused.<sup>3</sup> Figure 1 illustrates the growth of household debt since 1990, in both current dollar terms and in constant (i.e., inflation-adjusted) dollar terms. Since 1990, household debt measured in current dollars increased more than 150 percent, and even adjusting for inflation, household debt rose 80 percent.

Of course, an examination of trends in the volume of household debt can be improved upon by incorporating some measure of “ability to pay.” One perspective commonly included in analyses is the debt-to-income ratio. Figure 2, for example, shows the overall ratio of household debt-to-disposable personal income. This ratio rose at a fairly steady rate between 1990 and 2000. What stands out in Figure 2, though, is the steep rise in the ratio over the recent past. In particular, household debt-to-disposable personal income rose 12.4 percentage points between 2000 and 2003, providing more than half of the total increase in the ratio over the entire 1990-2003 period.<sup>4</sup>

<sup>1</sup> See for example Warren, Elizabeth (2003), *The Two-Income Trap: Why Middle-Class Mothers and Fathers Are Going Broke*, Basic; and Sullivan, Teresa A., Elizabeth Warren, and Jay Lawrence Westbrook (2000), *The Fragile Middle Class: Americans in Debt*, New Haven: Yale University Press.

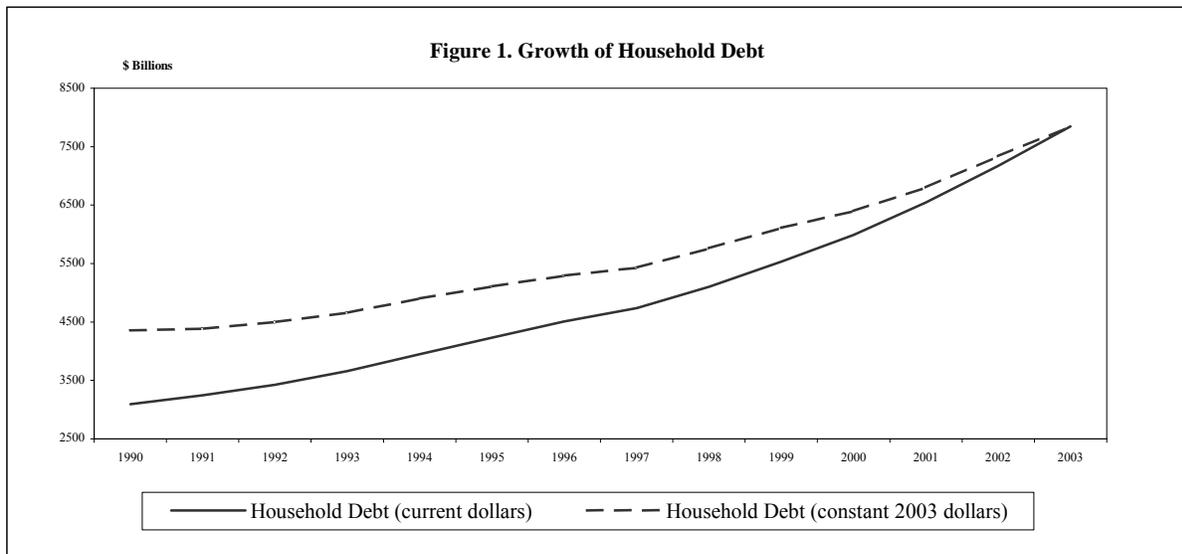
<sup>2</sup> Household debt includes both “consumer debt” (i.e., non-mortgage debt), and mortgage debt.

<sup>3</sup> Mote, Larry and Daniel E. Nolle (2004), “Household Debt: Cause for Concern?” manuscript, Office of the Comptroller of the Currency (December), discusses seven additional short-run trends seemingly supporting the dire straits perspective.

<sup>4</sup> Debt-to-income ratios have the disadvantage of comparing stocks to flows. As an alternative, one can compare the stock of household debt to households’ net worth. Household net worth in the *Flow of Funds* is calculated by subtracting household liabilities (the largest component of which is home mortgages) from household assets, which include financial assets and tangible assets (primarily real estate, but also consumer durable goods). See Board of Governors of the Federal Reserve System, *Flow of Funds Accounts of the United States* (various issues). Mote and Nolle (2004, Figure 3) show that household “debt-to-equity” ratios of around 17 to 18 percent since 2001 are considerably above the 13 to 16 percent range that characterized the previous ten years. Of course, changes in this ratio can be caused by either changes in the numerator or the denominator; and, in particular, the bursting of the “technology stock bubble,” quite apart from increases in debt levels, lowered household net worth somewhat and contributed to the increase in the debt-to-equity ratio.

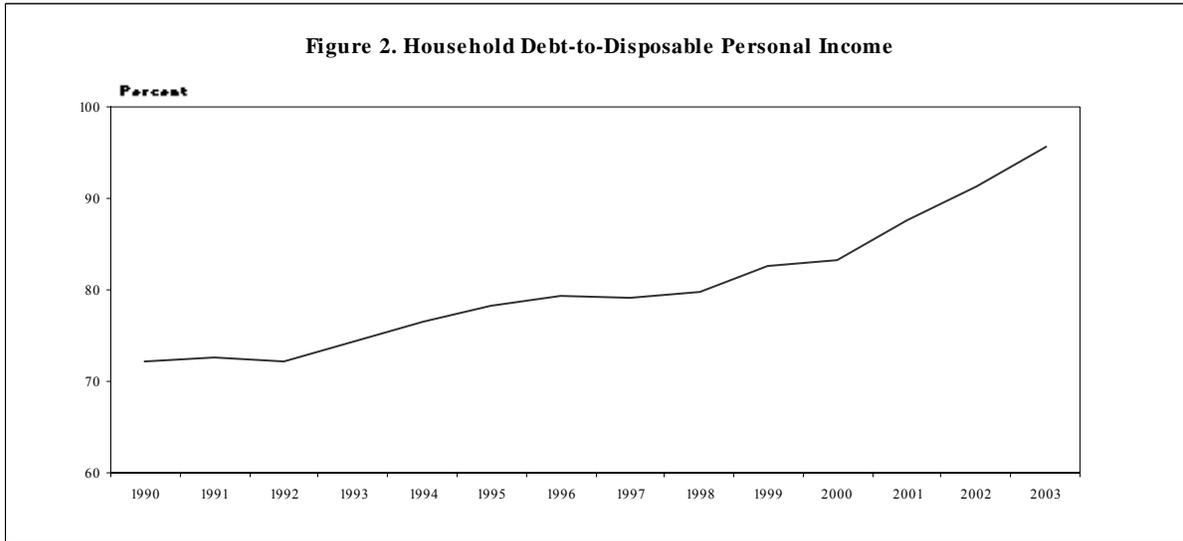
## II. Long-Run and International Trends in Household Debt

A review of short-run trends makes it easy to understand why many observers are increasingly uneasy about the financial prospects of the household sector. This section of the article puts short-run trends in historical perspective, pointing out that current trends in the growth of household debt are continuations of long-run developments. In addition, broadly speaking, trends in the expansion of household debt in the United States are similar to trends in household debt in other advanced economies. While these observations are not by themselves sufficient to completely ease growing concerns about the dangers of rising household debt, they raise questions about the nature of underlying causes. Subsequently, section III addresses that issue.



Source: *Flow of Funds*, Board of Governors of the Federal Reserve System; Bureaus of Labor Statistics.

Another perspective on “ability-to-pay” is captured in Federal Reserve System’s “debt service ratio” (DSR). The DSR shows households’ required debt service payments relative to their disposable income, and is therefore a measure of the resources households must devote each month to service their debt. Recently, the Federal Reserve created a broader debt service ratio, the “financial obligation ratio” (FOR), which adds to the debt principal and interest payments in the DSR such recurring obligations as rent, auto leases, homeowners’ insurance, and property taxes. Regardless of which ratio one uses, it is clear that both have risen to levels significantly beyond their historical averages. In particular, prior to 2000, the DSR had never exceeded 12.5 percent; since 2000 it has remained well above that level. Similarly, since the end of 2000, the FOR has remained significantly above its previous high of 17.9 percent. Mote and Nolle (2004, Figure 4) illustrate these trends.



Source: *Flow of Funds*, Board of Governors of the Federal Reserve System.

Table 1 documents the increase in access to and use of home-secured debt (primarily first mortgages) throughout much of the post-World War II period. In particular, row two shows that the percentage of households with mortgage or other home-secured debt nearly doubled from 24 percent in 1956 to 45 percent in 2001. Greater access to and use of household credit—termed the “democratization” of credit by some<sup>5</sup>—extends to credit cards as well, but Table 1 tells only

**Table 1. The “Democratization” of Household Credit:  
Percent of Households Using Credit, 1956-2001**

Type of Credit	1956	1963	1970	1977	1983	1989	1992	1995	1998	2001
<b>Any<sup>1</sup></b>	55	61	65	66	70	73	74	75	74	75
<b>Home-Secured<sup>2</sup></b>	24	34	36	39	37	40	39	41	43	45
<b>Installment</b>	45	50	49	51	51	49	46	46	44	45
<b>Credit Card with Revolving Balance</b>	N/A	N/A	22	N/A	37	40	44	47	44	44

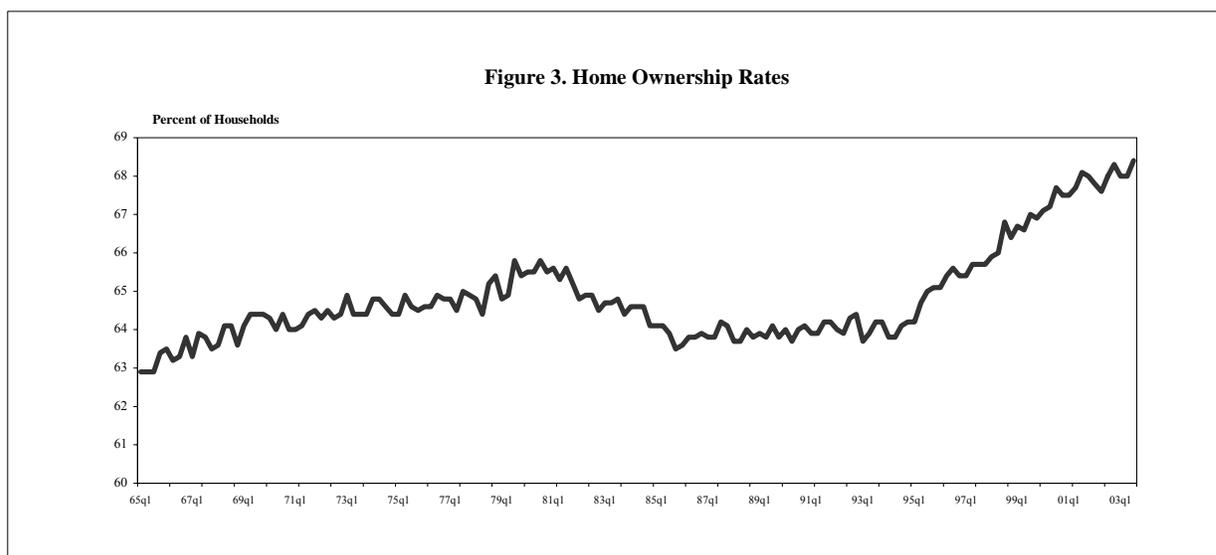
Sources: Durkin (2002); Survey of Consumer Finances, Board of Governors of the Federal Reserve System (various issues).

<sup>1</sup>Mortgage or installment or credit card with revolving balance for 1956-1977.

<sup>2</sup>Mortgage only for 1956-1977.

<sup>5</sup> See, for example, Durkin, Thomas A. (2002), “Discussion on ‘The Evolution of Consumer Credit in the United States,’” in Thomas A. Durkin and Michael E. Staten (eds), *The Impact of Public Policy on Consumer Credit*, Boston: Kluwer Academic Publishers, pp. 36-42.

part of the story with respect to home-secured credit. In particular, the recent strong growth in mortgage debt has resulted in record-high levels of home ownership. Figure 3 shows that the percent of households owning homes jumped from 64 percent in 1995 to 68 percent at the end of 2003. The fundamental factors explaining the long-run increase in mortgage credit extension (and its mirror image, mortgage debt) are discussed in the next section of the article; they have resulted in what Burhouse (2003) calls a “long-term ‘revolution’” that has “profoundly—and permanently—altered the patterns of consumer borrowing and credit quality across the business cycle.”<sup>6</sup> In addition, the surge in homeownership rates beginning in 1995 corresponds precisely to what Schuermann (2004) identifies as a “turning point” in household (and small-business) lending.<sup>7</sup>



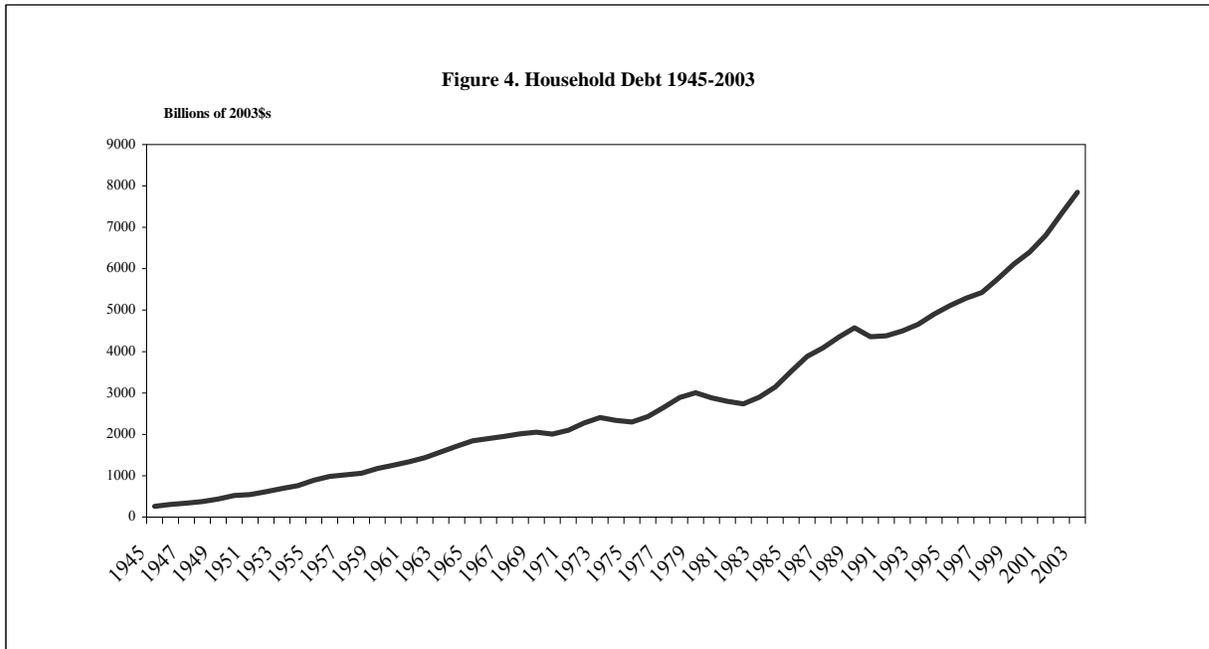
Source: Mortgage Bankers Association.

The Federal Reserve System’s *Flow of Funds* includes nearly 60 years of data on financial and nonfinancial data, including data for the household sector. Using this data, it is clear from Figures 4 and 5 that there has been a decades-long expansion of household debt. Figure 4 (which is the long-run extension of Figure 1) shows that, in inflation-adjusted terms, household debt rose 30-fold over the 1945 to 2003 period, with increases being realized almost every year. Of course, both total output and the number of households increased substantially over the post-World War II period as well, and for this reason Figure 5 (which is the long-run extension of Figure 2) shows

<sup>6</sup> Burhouse, Susan (2003). “Evaluating the Consumer Lending Revolution,” *FYI*, Federal Deposit Insurance Corporation, September 23.

<sup>7</sup> Schuermann, Til (2004), “Why Were Banks Better Off in the 2001 Recession?” *Current Issues in Economics and Finance*, Federal Reserve Bank of New York, 10 (1), January.

the ratio of household debt-to-disposable personal income from 1946-2003. Figure 5 shows that the ratio of household debt-to-disposable personal income increased from 20 percent in 1946 to 96 percent in 2003.<sup>8</sup>

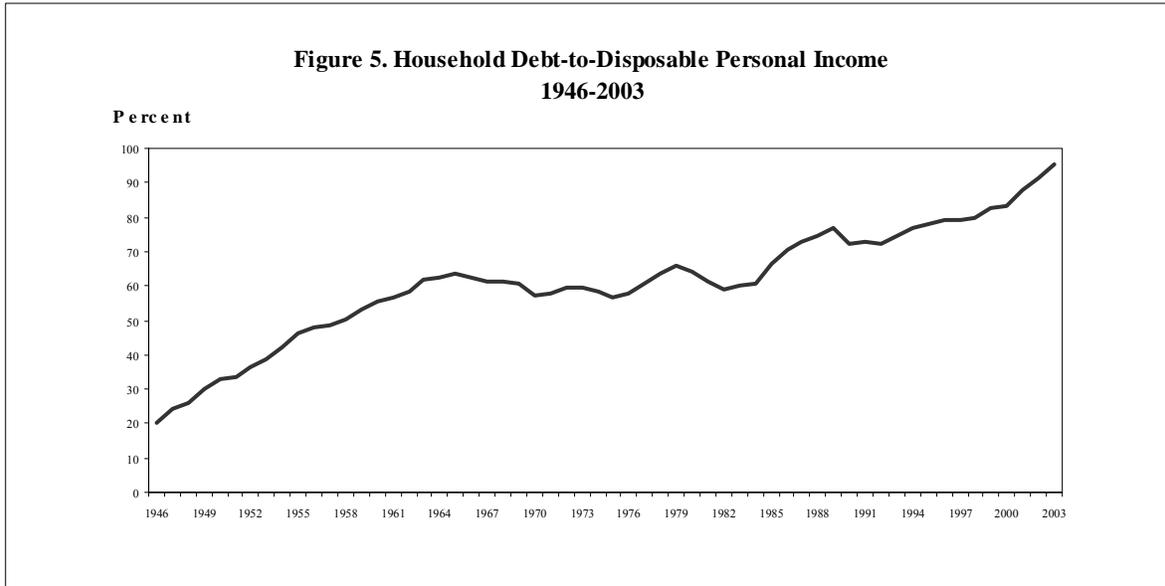


Source: Flow of Funds, Board of Governors of the Federal Reserve System.

The data illustrated in Figures 4 and 5 clearly show that there has been a profound, long-term change in credit extension to households, and that, broadly speaking, recent trends are continuations of long-run trends. It is also useful to consider information on trends in household debt in other countries. Doing so reinforces the notion that recent trends in household debt are a consequence of fundamental economic forces rather than, for example, destabilizing profligacy or household debt extension practices gone awry.

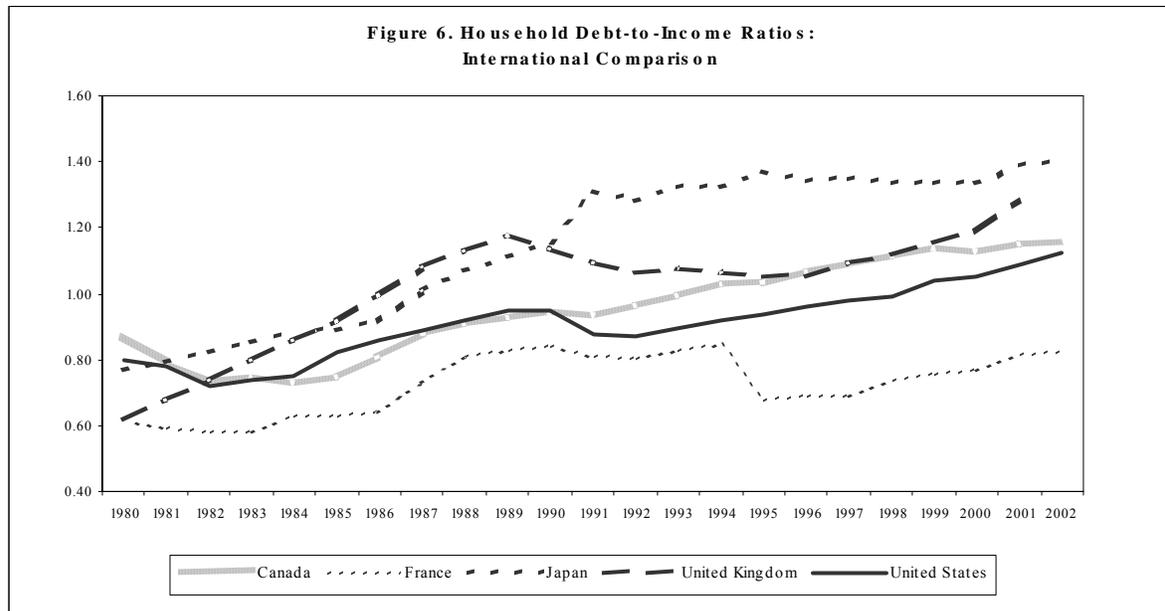
<sup>8</sup> Compared to the detailed data in the *Flow of Funds*, there is relatively little comprehensive macroeconomic data about household debt before the 1940s. Data for the banking sector, however, is of older vintage, and is useful in systematically tracking more remote trends in household debt. For example, Mote and Nolle (2004, Figure 14) show the long-run increase for banks, from 1900 onward, in the relative importance of consumer and mortgage lending compared to business lending (“C&I Loans”). In 1900, loans to households (i.e., mortgage plus consumer loans) were only one-ninth of lending to business; by 2003, bank lending to households was more than twice the amount of bank lending to businesses. These data include only loans on banks’ balance sheets and do not factor in securitized loans.

There is not much systematic/comprehensive data for the banking system, nor certainly for the macroeconomy, prior to 1900. However, partial analysis and observers’ observations clearly suggest a pattern of gradually rising household debt, as households gained access to credit previously not available. See in particular Calder, Lendol (1999), *Financing the American Dream: A Cultural History of Consumer Credit*, Princeton, New Jersey: Princeton University Press.



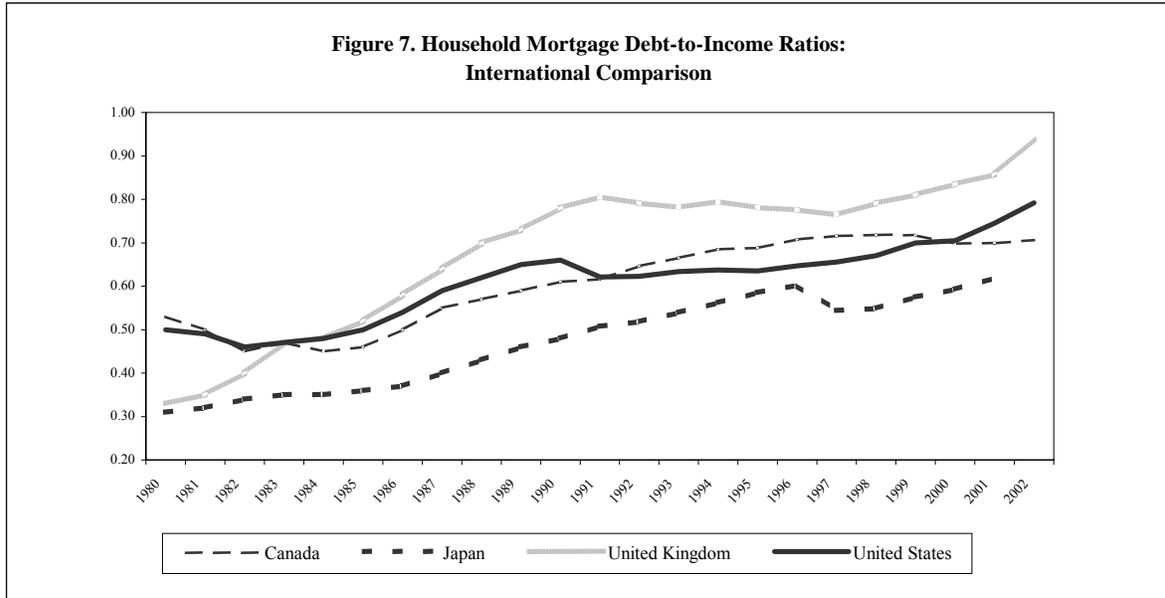
Source: *Flow of Funds*, Board of Governors of the Federal Reserve System.

Using data compiled by the Organisation for Economic Co-operation and Development (OECD), Figure 6 reveals that the long-term upward trend in the U.S. household debt-to-disposable personal income ratio has been replicated in other developed economies.<sup>9</sup> In particular, over the



Source: *Economic Outlook* (various issues), OECD.

<sup>9</sup> Organisation for Economic Co-operation and Development, *OECD Economic Outlook*, various issues.



Source: *Economic Outlook* (various issues), OECD.

1980-2002 period for which comparable OECD data is available, it is clear that Canada, France, Japan, and the United Kingdom have, like the United States, experienced long-term increases in household debt.<sup>10</sup> In addition, Figure 7 shows that, as for the United States, rising mortgage debt-to-income ratios accounted for the majority of the overall increase in the household debt-to-income ratio in Canada, Japan, and the United Kingdom (the only OECD countries for which comparable data over the time period are available).

### III. Explanations for the Growth of Household Debt

A number of fundamental factors have contributed to the growth of household debt over the past several decades, and indeed several have been at work for more than a century. Two categories of factors warranting particular consideration are changing attitudes toward household debt, and financial innovations.<sup>11</sup> This section examines key facets of each of these developments.

<sup>10</sup> Comparable data for Germany and Italy, though for a shorter period of time, show the same pattern.

<sup>11</sup> Mote and Nolle (2004) also consider the impact of changes in laws and regulations on household lending. In particular, they examine the holder-in-due-course doctrine, state usury ceilings, and the consumer protection and antidiscrimination legislation of the late 1960s and 1970s, noting that these measures have had important, but highly varied, impacts on the growth of household credit.

### Changing Attitudes Toward Household Debt

There had been a deep-seated conviction on the part of most bankers and economists, dating back several centuries, that lending for consumption purposes was unwise and certain to lead to serious consequences for lender and borrower alike.<sup>12</sup> Until relatively recently, this attitude was an obstacle to increased involvement of financial institutions in household lending. However, two developments led to a dramatic revision in commonly held attitudes toward the extension of credit to households: the articulation of the concept of “time preference,” and substantial growth in per capita income.

The concept of *time preference* refers to the continuing desire of consumers to consume more in the present period than their current incomes would permit. Time preference is the underlying determinant of the demand for household credit for consumption purposes. However, rather than reflecting profligacy and recklessness, as imagined by most political economists and moralists from Adam Smith until the mid-twentieth century, time preference has come to be viewed as a very natural desire to allocate lifetime consumption over time in such a manner as to yield the greatest benefit to an individual.

The interaction of time preference with expectations regarding future income in determining the time pattern of consumption for a typical consumer was formalized in the Life-Cycle Hypothesis developed by Franco Modigliani, Richard Brumberg, and Albert Ando in the 1950s and 1960s. The hypothesis holds that most consumers would prefer a relatively constant flow of consumption over their lifetimes. However, because income typically varies systematically with age as one’s earning power gradually increases with education and experience up to some point, and then remains constant or declines until retirement (and varies randomly from year to year with the state of the economy and other idiosyncratic developments), households smooth their consumption over time by borrowing in periods of relatively low income and saving for the purpose of repaying debt and/or lending in periods when income is unusually high. Rooted in utility maximization, the Life-Cycle Hypothesis provides a powerful theoretical explanation of, and justification for, household lending for consumption purposes.

Of course, for households’ latent demand to become “effective demand” it is necessary that it be backed by purchasing power. In the short run, corresponding to the years before the consumer’s prime earning years, purchasing power can be obtained through credit—but only if there is a reasonable prospect that his or her income and accumulated wealth over a lifetime will be adequate to repay debts contracted earlier. Thus, the *growth of per capita incomes* to levels well above

<sup>12</sup> See for example Smith, Adam (1776), *An Inquiry into the Nature and Causes of the Wealth of Nations* (Book II, Chapter IV, p. 333), (reprinted by Random House, New York, 1937, Edwin Cannan (ed.)).

subsistence levels for a large portion of the population was another key factor contributing to the rapid expansion of household debt in the United States and other highly developed countries.<sup>13</sup>

## **Financial Innovations**

Financial innovations have contributed greatly to the expansion of household lending. While it is widely appreciated that recent “financial engineering” developments such as credit scoring and securitization have enhanced credit extension to households, such recent advances were preceded by less visible but nevertheless profoundly significant “low-tech” financial innovations. Key “low-tech” and “high-tech” financial innovations are discussed in the remainder of this section.

### ***Low-Tech Financial Innovations***

Possibly because of the “low-tech” nature of some of the earliest financial innovations that helped to reduce the costs of originating and monitoring household loans and to improve payment performance, their significance has not been widely appreciated. Chief among these were the installment plan for household lending, the credit bureau, and the standardization of loan terms, all three of which contributed to reducing the costs and improving the risk management of household lenders.

*The Installment Plan.* The extension of installment credit by manufacturers and retailers to finance the sale of their goods preceded by a quarter century or more the extension of cash installment loans by financial institutions to individuals and households. Although borrowing by consumers was generally held to be unsound and imprudent, even such severe critics as Adam Smith made an exception for credit that was used to finance expenditures that could be expected to enhance productivity. Under these circumstances, a large proportion of the installment credit extended by manufacturers and retailers in the United States in the second half of the nineteenth century was used to purchase a household item that contributed enormously to household finances—the sewing machine, the first successful design of which had been patented by Elias Howe in 1846 and put into mass production by Isaac Singer in the 1850s.<sup>14</sup> To overcome ingrained resistance to the high price of early sewing machines, in excess of 10 percent of annual income for many households, I. M. Singer and Company introduced the “hire-purchase” plan under which fees for renting a sewing machine could be applied to the purchase of the machine.

<sup>13</sup> The inadequacy of incomes to even cover subsistence needs has long been a key obstacle to economic development in the developing countries; their inability to generate a surplus to finance investment makes them dependent on aid from external sources. To a slightly less debilitating degree, this same inability to borrow characterized most U.S. households until late in the 19th century (Calder [1999]). Unfortunately, there are no data to give us an adequate notion of how much household credit was in fact extended in the 19th and earlier centuries. We have little more than Adam Smith’s conviction that such credit was much rarer than was generally supposed, and the anecdotal evidence offered by Calder (1999) that it was more widespread than commonly believed. What we can conclude is that it was much less readily available than it is today and considerably more expensive.

<sup>14</sup> Households used sewing machines either to produce sewn goods for sale to others or, more frequently, to produce clothing for direct use by the members of the household, reducing their dependence on expensive purchased cloth-

By the end of the century, the installment plan had become the method of choice for purchasing not only sewing machines, but many other consumer durables as well, including furniture, pianos, and organs.<sup>15</sup> Ultimately, commercial banks adopted the installment plan once their ingrained reluctance to lend for consumption purposes was overcome by, first, the need to replace the decline in their commercial lending occasioned by the increased reliance of businesses on internally generated funds in the 1920s and, second, by the accumulating evidence that household lending could, indeed, be conducted safely and profitably.<sup>16</sup>

*Credit Bureaus.* The credit bureau was another simple financial innovation with widespread effects. Prior to the development of credit bureaus, credit information was almost universally treated as proprietary. A serious consequence of the hoarding of credit information was that lenders could not take advantage of each other's experience with a given borrower. Because each lender had to learn independently which borrowers were good credit risks, the costs in terms of credit losses and labor time spent in gathering information were immense. In this environment, firms focusing on the collection and dissemination of credit information on consumer borrowers sprang up in the 1890s, using as models the information collection practices and the compilation of credit reports on commercial firms pioneered in the 1840s by the Dun Company and the Bradstreet Company.<sup>17</sup> Today, there are more than 1,000 local and regional credit bureaus in the United States that collect, and make available to lenders, credit information on individuals. Most of these bureaus are affiliated with one of the three major credit reporting agencies, Experian, Equifax, and TransUnion. These agencies make available to lenders specific information on credit performance, including the number of late or missed payments, total amounts of credit outstanding, unused lines of credit, etc.

ing. The economic significance of the widespread ownership and use of sewing machines is difficult to exaggerate; it reduced the time required to assemble a shirt from 10-14 hours to less than an hour.

<sup>15</sup> According to Calder (1999), Household Finance Corporation, which was founded in 1878 by Frank J. Mackey in Philadelphia and became the prototype of the modern small loan company, was the first financial institution to offer cash loans to consumers on the installment plan. In modified form and accompanied by several additional features designed to enhance repayment performance, the installment plan was adopted by the credit union and Morris Plan Bank movements.

<sup>16</sup> It is difficult to overestimate the disciplining effect of the requirement that borrowers make frequent, small payments of principal and interest at pre-established intervals. Not only did the installment plan eliminate the need for households to set aside large amounts of cash for long periods of time to meet distant obligations, it provided lenders with reliable, ongoing feedback on borrowers' ability to sustain current and growing debt burdens, information vital to debt collection efforts and future credit decisions. By the turn of the 20th century, the installment loan had not only become the favored means of purchasing appliances, clothing, and many other consumption goods, but was about to become the standard means of purchasing automobiles.

<sup>17</sup> The Dun Company (established in 1841) and the Bradstreet Company (established in 1849) merged in 1933 to become today's familiar Dun & Bradstreet Corporation.

*Standardization of Lending Terms.* The last of the “low-tech” innovations that profoundly contributed to the huge expansion in the volume of household credit since World War II was the standardization of loan products and terms. This development began in earnest in the 1950s and 1960s and permitted the “commoditization” of household lending that has come to characterize the industry. Fostered in the mortgage market by the requirements laid down by Fannie Mae and Freddie Mac for the loans they were willing to purchase, standardization was subsequently propelled by the competitive pressures to achieve economies of scale in credit card and other household lending. This innovation was essential to the success of the financial equivalent of the manufacturing assembly line—automated underwriting and account management. It was also a prerequisite to the development of several relatively “high-tech” financial innovations—credit scoring, automated underwriting, and securitization—that have helped to revolutionize risk management in household lending.

### **High-Tech Financial Innovations**

*Credit Scoring and Automated Underwriting.* Prior to changes in the 1980s and 1990s, household lending decisions involved relatively costly personal interaction with lending officers, and one-on-one credit evaluations, after which many banks held the loans in their own portfolios. More recently, the household lending process has been dramatically transformed by innovations in information processing, telecommunications, and financial instruments and markets. One of the key elements in this transformation has been the development of credit scoring. Essentially, a credit score is computed by calculating a weighted average of a number of borrower characteristics, past payment performance, and other measures of ability and willingness to pay that are reasonably predictive of future payment performance, and therefore serve as the basis for the decision to grant or deny credit to a given applicant.

First used to evaluate residential mortgages for insurance purposes following the establishment of the Federal Housing Administration in 1934, credit scoring of consumer loans began to be used on a large scale by retailers and personal finance companies during World War II, when many skilled loan officers were lost to the war effort.<sup>18</sup> As in the mortgage market, it initially was based on judgmental weightings of factors that appeared to be plausibly related to repayment performance. However, the widespread introduction of electronic computers for peacetime uses in the 1950s made it possible, for the first time, to analyze large quantities of data quickly and accurately. In 1958, the founders of Fair Isaac Company began using computers to develop credit-scoring systems that incorporated statistically derived weights. Over time, it became apparent

<sup>18</sup> McCorkell, Peter L. (2002), “The Impact of Credit Scoring and Automated Underwriting on Credit Availability,” in Thomas A. Durkin and Michael E. Staten (eds), *The Impact of Public Policy on Consumer Credit*, Boston: Kluwer Academic Publishers.

that the company's "FICO" scores were superior to judgmental decision makers in distinguishing good from bad credit risks. Today, consequently, FICO scores are used by virtually all household lenders.<sup>19</sup>

It is but a short step from the development of a reliable credit scoring system to a full-fledged automated underwriting system. Described as "computerized loan approvals" or "automated credit application processing systems," automated underwriting makes use of computers to analyze data on the previous credit performance and other financial characteristics of loan applicants on the basis of pre-established criteria to approve or deny requests for loans. In almost all cases, credit scores (FICO or others) are supplemented with data on the borrower's income and assets—but, in the case of mortgage loans, typically not information on the specific property used as security for the loan—in the approval process. Like credit scoring, automated underwriting has been used for many years to approve credit card and consumer installment loan applications, but only since the late 1990s has it become important in mortgage lending.

*Securitization.* Securitization consists of pooling a large number of assets of similar type, size, and risk category and then issuing a security whose cash flow is closely tied to those of the underlying assets. It has become a prime means by which lenders raise funds for lending, diversify their own portfolios, and transfer unwanted risk to investors. First practiced in the residential mortgage market, where Fannie Mae and Freddie Mac used it as the primary means of establishing a secondary market for home mortgages, it has since spread to credit card receivables, automobile loans, other consumer installment loans, and—to a limited but growing degree—small business loans. Securitization is most appropriately viewed as a continuation of the unbundling process in financial markets, by which many products and services that were once available only in "bundled" form—i.e., as one part of a combination of different services—are now priced and sold separately. In the case of consumer and mortgage lending, this means that the origination of such loans can be separated from the servicing and risk-bearing aspects of such lending. By allowing lenders and investors to specialize only in those aspects of the credit-providing process for which they are best qualified, securitization contributes to operational efficiency and helps to achieve an optimal distribution of risk. In addition, by increasing the marketability of claims on the interest and principal of various forms of household debt, securitization has undoubtedly lowered the risk of holding those claims and reduced the cost of such debt to consumers.

<sup>19</sup> As reported by Right Trac Financial Group (2003), *FICO Scores*, ([www.fdc.mortgage101.com](http://www.fdc.mortgage101.com)), the approximate weightings of the five broad categories of variables incorporated in FICO scores are: previous credit performance (35 percent), current level of indebtedness (30 percent), time credit has been in use (15 percent), types of credit available (15 percent), and pursuit of new credit (less than 5 percent). The scores themselves range from 300 (high risk) to 850 (low risk). According to studies sponsored by Fair, Isaac, and Company, "the use of scoring consistently produces 20 to 30 percent improvements—either in reduced delinquency rates or increased acceptance rates—compared with judgmental evaluation." See Martell, Javier, Paul Panichelli, Rich Strauch, and Sally Taylor-Shoff (1997), *The Effectiveness of Scoring on Low-to-Moderate-Income Populations*, San Rafael, CA: Fair, Isaac and Company, Inc.

## IV. Summary and Conclusions

Increasingly, analysts, the media, and the public are focusing on household debt issues and, to varying degrees, they are drawing implications about serious economy-wide consequences from rising household debt.<sup>20</sup> Indeed, section I of this article illustrated a number of seemingly disturbing trends in household debt. Subsequently, Section II showed that recent household debt trends are part of long-run trends in credit access for households, and that such trends are characteristic of other developed economies as well as the United States. The observations that household debt trends are long-run in nature, and that similar patterns of household debt behavior exist in other developed economies, do not necessarily mean current developments are sanguine. However, these two observations should raise questions about what explains such broad and historically deep trends.

Section III addresses some of these questions, providing a perspective on fundamental long-run factors underlying the increase in household credit access that is neglected by many observers. This perspective takes account of changing attitudes toward credit extension, the rational desire by households to smooth consumption over time, and financial innovations in credit extension practices. Based on an examination of key economic concepts, and long run trends in household credit extension, it is possible that concerns about negative economy-wide consequences of rising household debt are overwrought.

Of course a conclusion that household debt trends do not threaten macroeconomic stability will not hold under all conditions. Specifically, large and sudden increases in interest rates, or a significant decrease in personal incomes brought about by, for example, a sharp increase in the unemployment rate, could negatively effect households' ability to service debts to an extent that would destabilize the macroeconomy.<sup>21</sup> That said, from a public policy perspective, the appropriate focus should be on macroeconomic measures to prevent or mitigate such "exogenous shocks," rather than on policies aimed at curtailing the extension of household credit and, thereby, consumption patterns.

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<sup>20</sup> For example, the Kerry-Edwards presidential campaign chose to focus on aspects of rising consumer debt; and the November 23, 2004, episode of the Public Broadcasting System television show *FRONTLINE* featured a documentary titled "Secret History of the Credit Card," which discussed the nature and implications of rising credit card debt for consumers.

<sup>21</sup> Increasingly, macroeconomists worry about the impact of the large and growing current account deficit on dollar exchange rates, and subsequent monetary policy and interest rate responses. In addition, some observers express concern about macroeconomic consequences of a significant decline in household sector asset values, particularly a sharp drop in housing values. Such a turn of events would lower household wealth, thereby having a negative impact on consumer spending. Subsequently, a decline in consumption could lead to an economic slow down.

Nevertheless, it is possible—many would say likely—that there are two arenas in which rising household debt does or could generate significant problems. First, although empirical research is thin, some observers argue that there is a growing “fragile tier” of financially distressed households. To the extent this is true, it could create significant credit quality problems for some lenders, including some banks. Second, there is an active debate over when, and in what respect, economically justified lending bleeds over into overly aggressive, and perhaps exploitative and deceptive credit extension practices. This in turn raises household debt-related consumer protection issues, and possibly reputation risk issues for lenders. Even though such problems might not destabilize the macroeconomy, they raise significant supervisory and public policy issues. For this reason, further research into these two areas is warranted.