



“Tipping Points” II Household Debt Research Symposium

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Executive Summary

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Many thanks to all the authors, discussants, and participants who contributed to the success of our second “Tipping Points” research symposium on household debts. While our first symposium, held in June of last year, focused on the micro or household-level effects of household debts, this year’s symposium centered on the macro effects of family debts—specifically, at what point does household debt move from contributing to economic growth to inhibiting growth? As with last year’s symposium, this year’s revealed a number of fascinating and sometimes counterintuitive research findings that we hope will inform future research, private and non-profit practice, and public policy.

The Center for Household Financial Stability at the Federal Reserve Bank of St. Louis was founded on the idea of studying the entire family balance sheet of struggling and middle-class families, not just their savings and assets. Our view, shared by our partners at the Private Debt Project, is that the debt side of the balance sheet has been relatively understudied but increasingly recognized as critical to the financial well-being of families and overall performance of the U.S. economy, as the Great Recession recently demonstrated.

In the run-up to the Great Recession—which has in fact been called a “balance sheet recession”—household debt levels reached an historic peak in the third quarter of 2008; debt levels then declined by more than one trillion dollars before stabilizing in 2011. Measured against disposable personal income, however, household loans peaked at the end of 2007, at 131 percent, according to Federal Reserve data. By this measure, household debts hit a low point of 101 percent in early 2016, and has increased only marginally since then. Total household debts, a measure that includes home mortgages, student loans and various forms of consumer credit, stood at \$14.6 trillion in the second quarter of 2017. This represented a small increase from a

decade ago in nominal terms but the burden of debt is substantially smaller now relative to disposable personal income.

However, while the current debt-to-income ratio is much lower than its peak value in late 2007, the overall debt ratio of 102 percent in mid-2017 remains historically very high. This ratio had never exceeded 100 percent before 2002, and it now is two-thirds higher than its level in early 1983, when the 25-year leveraging of American households began in earnest.

Moreover, while the *overall* burden of household debt has been significantly reduced yet remains historically high, *consumer* debt has hit 26 percent of disposable income—an *all-time* high. Consumer debt has grown at about twice the pace of household income during the last five years. As my colleagues William R. Emmons and Lowell R. Ricketts show in our Center's publication, *The Quarterly Debt Monitor*, almost all consumer debt growth continues to be driven by strong growth in new student and auto debts over the past few years; without that growth, the deleveraging seen after the Great Recession would likely have continued. As they note, since mortgage debt comprises a majority share of consumer debt, changes within this category have a considerable impact on total debt.

So, what are we to make of relatively high levels of overall debt and historically high levels of consumer debt, what does this all mean? Rising household debt levels could mean that more Americans are optimistic about the U.S. economy, that they have paid off their loans to qualify for new ones, and that more Americans are making investments in generally wealth-building assets like higher education and homes. At the same time, higher debt levels could reveal financial stress as families use debt to finance consumption of necessities, and could portend new waves of delinquencies and eventually defaults that displace these kinds of investments. And rising family debts could slow economic growth and, of course, even lead to a recession.

It is precisely because of this dual nature of household debt—that it offers both benefits and risks to the U.S. economy—that we structured this year's papers (as we did with last year's papers) around tipping points in various types of household debt. What follows are brief summaries of the papers and keynote remarks, some discussant comments, and four closing observations from the day's proceedings.

Emmons and Ricketts, "Household Debt at the Tipping Point: When and Why Does Household Borrowing Hurt the Economy?" While household credit booms and busts are not new phenomena, the financial crisis in 2008 and its devastating effects have spurred a deeper examination of the mechanics underlying these episodes. In their conference framing paper, William R. Emmons and Lowell R. Ricketts review this growing literature and attempt to answer four primary questions: (a) What drove the recent (and previous) household credit booms? (b) What factors precipitated the tipping point in household borrowing in the economy? (c) How did the following deleveraging efforts affect the economy? And (d) Can the literature guide us on how to avoid these destructive cycles or mitigate the damage in the future? Looking at the origins of the recent episode, Emmons and Ricketts find more evidence supporting the "irrational exuberance" demand-side view espoused by Robert Shiller than an exclusive supply-side explanation that stresses loosening mortgage credit standards as argued by Atif Mian and Amir Sufi. However, both perspectives likely are important and researchers remain far from reaching a consensus on the origins or implications of the recent episode. The double leverage cycle and its

violent unwinding triggered by “scary bad news” put forth by John Geanakoplos is, in their view, the most compelling model of a tipping point. They also observe that whether “deleveraging per se was responsible for the slow recovery remains uncertain as important structural factors such as demographic, technological or political changes were also at play during this time, confounding identification.” Given the uncertainty surrounding the recent episode, Emmons and Ricketts believe that few prescriptions are available for policymakers.

Kuhn, Schularick, and Steins, “The Great American Debt Boom, 1949-2013.” Moritz Kuhn, Moritz Schularick, and Ulrike I. Steins, using historical Survey of Consumer Finances Data dating back to 1949, attempt to “dissect the astounding ascent of household debt in postwar America.” Relative to income, they note, household debt has risen by a factor of six. While not a tipping points paper per se, Kuhn et al. discern three distinct phases of rising leverage, and whether those were driven by increases in the extensive margin, intensive margin, or both. From 1950-1970, more households owned debt; from 1970-1990, there were higher debt levels per household; and from 1990-present, there were more borrowers at low end plus more borrowing at high end. Borrowing thus cut across income levels and occurred at both the intensive and extensive margins. Kuhn et al., who observe an outsized role of mortgage debts in overall U.S. household debt levels, show that higher leverage has made American households and the American economy more financially vulnerable. Specifically, they observe that “house price fluctuations have far more serious consequences on the health of the balance sheets of consumers—and of the banks who hold the mortgage loans. With higher leverage, asset price fluctuations have come to play a pivotal role in macroeconomic stability.”

In fact, in her discussant remarks, Patricia Mosser noted that without “dual leverage”—too much leverage concurrently in both the household and banking sectors—real damage to the economy cannot occur, while she also (along with Kuhn et al.) worried about macro-stability if we move away from a low interest rate environment. Kuhn et al. close by noting that the interaction of financial deregulation, credit supply shocks and house prices “appear to be central to gaining a complete and nuanced understanding of the surge in household debt since WW2.”

Lombardi, Mohanty, and Shim, “The Real Effects of Household Debt in the Short and Long Run.” In their symposium paper squarely focused on tipping points in household debt and macro-economic performance, Macro Lombardi, Madhusudan Mohanty and Ilhyock Shim find that, after reviewing data on 54 economies over 1990–2016, household debt boosts consumption and GDP growth in the short run, mostly within one to two years. By contrast, a 1 percentage point increase in the household debt-to-GDP ratio tends to lower GDP growth in the long run by around 0.1 percentage point. In order to investigate the potential nonlinear effects of household debt, Lombardi et al. identify both slope and threshold effects associated with household indebtedness measured by the household debt-to-GDP ratio on both consumption and economic growth. They find that the negative long-run impact of household debt on consumption and GDP growth tends to intensify as the household debt-to-GDP ratio exceeds a threshold of 70%. They also identify a positive impact of household debt on consumption growth, particularly when the ratio is low and growing above a threshold of 20%. The authors—while unable to comment on the drivers of household debt (supply v. demand), or the mechanism by which debt impacts economic growth—have nonetheless demonstrated positive short term but negative long-term effects of household debt.

Mian, Sufi and Verner, “How Do Credit Supply Shocks Affect the Real Economy? Evidence from the United States in the 1980s.” Looking across states instead of countries, Atif Mian, Amir Sufi and Emil Verner pose the question, “How Do Credit Supply Shocks Affect the Real Economy?” They look specifically at the 1982 to 1992 business cycles by “exploiting variation across states in the degree of banking deregulation to generate differential local credit supply shocks” and find that “expansion in credit supply operates primarily by boosting local demand, especially by households, as opposed to improving labor productivity of firms.” They also observe changes to the relative prices of labor and goods as a result of this financialization, yet what’s clear is that the impact of positive credit supply shocks on macroeconomic performance vary substantially whether those shocks primarily boost demand or improve labor productivity. As a result, Mian et al. note that “it is crucial for researchers and policy-makers to better assess which of these two channels is more powerful in the data.” In the 1980s, they found that “early deregulation states experienced a relative rise in household debt, and a relative increase in employment in the non-tradable sector. In contrast, employment in the tradable sector was similar in early and late deregulation states.” While early deregulation states experienced an amplified business cycle, Mian et al. refrain from making the normative claim that states that deregulated their banking systems earlier “may end up better in the long run, and we do not claim that the regulations in place prior to deregulation were optimal or better than a deregulated system.”

Robert Hockett, the paper’s discussant, noted that the effects of household debt on aggregate economic activity cannot be fully understood without understanding whether the assets purchased with those debts are stable; the more stable the assets, the less risk that higher leverage poses to macroeconomic performance.

Dynan, “The Evolving U.S. Economy and Household Debt.” In her keynote remarks, Karen Dynan distinguished among three trends related to tipping points. First, the trends that are making households more *vulnerable* to reaching a tipping point—limited growth in household incomes over the past few decades; more workers with less predictable and stable incomes; and more student borrowing for degrees that add little to earnings prospects. Second, trends that make it more difficult to *mitigate* the immediate macroeconomic fallout from reaching tipping points—low interest rates, which many economists see as a new normal; and the rise in government debt. And, third, trends that make the longer-term effects of hitting a tipping point more *consequential*—low productivity growth, her primary concern given its effect on household incomes; and the reduced dynamism (due, as other researchers note, to greater industry consolidation) in the American economy. But Dynan sees good news as well, in particular the overall state of U.S. family balance sheets (with some concerns around student and auto loans, though neither, she believes, pose a systemic risk to the U.S. economy). She’s also encouraged by accompanying improvements in financial regulation and consumer protection. Dynan closed with a call for more research and data tracking, as well as with suggestions for further research, policy and action regarding household debt—namely mortgage finance reform, greater risksharing of student loans, and opportunities for fin-tech to improve household debt management.

Mason, “Income Distribution, Household Debt, and Aggregate Demand: A Critical Assessment.” In the symposium’s final paper, J.W. Mason observes that, in the period leading up to the recession of 2007-2008, there were large increases in household debt relative to income

and consumption as a fraction of GDP, as well as an increase in income inequality. Mason notes that these three developments are often claimed to be closely linked—that is, household debt increases are due to more borrowing by lower-income households to maintain current consumption, which in turn sustained aggregate demand. In his paper, Mason asks if empirical evidence support this. Specifically, he asks five questions: (a) How much household borrowing finances consumption spending?; (b) How much has monetary consumption spending by households increased?; (c) How much of the rise in household debt-income ratios is attributable to increased borrowing?; (d) How is household debt distributed by income?; and (e) How has the distribution of consumption spending changed relative to the distribution of income? Mason concludes that that “the distribution-debt-demand story may have some validity if limited to the housing boom period of 2002-2007, but does not fit the longer term rise in household debt since 1980.” Mason, like many other symposium participants, noted the risk to borrowers if interest rates rise but, interestingly, with Germany in mind as an example, questions the fundamental need for families to borrow to purchase assets and finance consumption in the first place—that is, should we reduce the need for families to own private assets at all to achieve financial stability?

But to the extent that we must accumulate debt, the paper’s first discussant, Daniel Alpert, noted that the only practical way out of debt is by raising incomes, which (recalling Dynan) requires boosting productivity.

Picking up on the Mason’s consumption and debt insights, Barry Cynamon, the paper’s second discussant, referenced on-going research he’s conducting with Daniel Cooper and Steve Fazzari related to household tipping points which, for them, means household lifetime expenses reaching a certain level of excess beyond lifetime resources. Cynamon et al. find that “The financial crisis of 2007-2009 might have been a demonstration of a tipping point caused by unsustainable spending over many years”—with rising debt facilitating excess consumption—and that “the long accumulation of unsustainable spending, particularly clear in the Baby Boomer analysis, suggests that the problem was excessive consumption relative to household resources and not a one-off shock.” They close by noting large declines in sustainability as families age, meaning that they are most likely not saving adequately for retirement, and large declines in sustainability of households over time, suggesting that the financial health of the median American household has declined since the mid-1980s.

What Did We Learn? Four Closing Observations

The papers and symposium proceedings, which together offered historical, cross-state, and cross national perspectives on household debt, suggest four closing observations.

First, while no consensus was reached regarding the primary drivers of rising debt levels, some key findings emerged. Compelling evidence suggests that both the increased supply of credit and psychological factors influencing demand for credit—what some have called “irrational exuberance”—played important roles. Also, housing and mortgage markets were central to the Great Recession and the financial crisis. In addition, dual leverage cycles—in both the household sector and the financial sector—inflated the housing bubble and, when they both began to unwind, unleashed a catastrophic collapse. And finally, debt-fueled consumption spending played some role in the crisis and may continue to plague the economy in the future.

Second, despite an incomplete understanding of the drivers and mechanism of household debt, noteworthy progress was made on two tipping-points fronts: One, household debt can boost consumption and GDP growth in the shorter term (within one to two years) but suppress it beyond that. And two, whether and how household debt affects economic growth over the longer term depends on (a) whether debt boosts local demand for goods and services or labor productivity; (b) the extent of leverage *concurrently* in the banking sector, or “dual leverage”; and (c) the stability of the assets being purchased with those debts.

Third, even with aggregate levels now exceeding the 2008 peak, most participants did not see household debts currently posing a systemic risk to the economy. However, trends in student borrowing, auto loans and (perhaps) credit card debts are troubling to those borrowers and in those sectors. In addition, rising debt can be a drag on economic growth even if not a systemic risk, and longer-term reliance on debt to sustain consumption remains highly concerning as well. Moreover, more families are now more *vulnerable* to hitting a tipping point because of limited income growth (due, especially, to low productivity gains), more volatile incomes, and household debts (such as student loans) that may not necessarily lead to income-producing assets (such as a degree from a poorly ranked or for-profit institution). These risks to families are further exacerbated, all participants agreed, by monetary policy moving away from a low interest rate environment.

And fourth, it seems clear that public policy solutions to rising debt levels must be considered, given that the risks associated with low productivity growth, higher interest rates, banking and financial sector regulations, rising higher-education costs and other risks are matters impacted or potentially impacted by policymakers. Policy responses discussed by participants included measures to boost family incomes (such as full employment, increased public investment, Earned Income Tax Credits, minimum wages, and universal basic incomes), strong enforcement of consumer protection laws, monetary policy decisions, and a range of more complicated measures to improve household incomes by boosting productivity.

Indeed, levels of household debt have often served as a mirror or reflection of larger, structural, technological, demographic and policy forces that impact consumers; it only makes sense, then, that policy and institutional measures must be considered to ameliorate debt levels and their impact on families and the economy. After all, what’s good for families is good for the economy, and vice-versa.