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A Burning Debt. The Influence of Household Debt on Investment, Production and Growth in US.

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1. Introduction

This paper discusses household debt as a long term phenomenon that influences economies beyond crises.¹ In other words, rather than look at how household indebtedness can lead to crises, I will focus on its surprising persistence at very high levels, and its interactions along the way with other key variables, such as public policies and spending. The first section describes some stylized facts and the final section explores the macroeconomic consequences.

I shall look specifically at the US: a paradigmatic country that quickly pioneered a system that others have been adopting over a longer timeframe. In fact, I will argue that it was not some behavioural preferences or misconduct, but policy, that led to current levels of household debt. Specific policies made possible, encouraged and eventually made necessary the enormous debt load still burdening American households. Those acted directly, by deregulating key markets and creating tax and other types of incentives, and indirectly, by generating the conditions for growing income and wealth inequality: the so called dual economy (Temin 2016, 2017).

This strategy, however, has a rationale: firms can increase their sales (in value or quantity) independently of the wages paid and avoid confrontation with the countervailing power that could

¹ On the theory of the monetary circuit see Graziani (2003) and Seccareccia (2012)

derive from higher wages and income security and welfare. The government, in the short term, can avoid the consequences of reducing public spending although, on occasions, it intervened to repair the damages to the credit system.

Net public spending and net household borrowing (minus so financed imports) can thus be described as interchangeable or reciprocally compensating sources of internal exports (Kalecki 1971, Luxemburg 1913): an inflow of liquidity and source of revenue from within the country but external and not directly related to the productive system and its distributive framework. Such inflow appeases competition among firms and between firms and workers and increases profitability.

A key feature of this system is that governments should always intervene in a *timely and short-lived* fashion, targeting specific emergencies, as prescribed by the New Consensus theory (or New Neoclassical Synthesis) (Woodford and Eggertsson. 2004, Bernanke 2008).²

This theory's prescriptions are consistent with the idea of "economic alarmism" (Caffè 1976): it is most convenient for elites to reduce prudential economic interventions in order to take advantage of the emergency to apply measures that do not command democratic support by depicting them as necessary (Costantini 2015, 2018). In the case of 2008, governments lavished the financial sector and the financialized non-financial corporate sector with public money (Stiglitz 2010). In the US, there was not much to liberalize further but, since, the crisis many European countries have been experiencing the strongest attack to social security and labor market protection in the post war history (Costantini 2017).

The ensuing economic dynamics fails at providing the appropriate context for investment and growth. Instead, it has been consistent with long term stagnation and growing income, wealth, and power concentration, as well as occasional crises.

2. An Empirical Analysis of Household Finances in the US

The recent literature highlights different determinants of the unprecedented increase of household debt after 2001. Some authors stress the role of inequality either by itself (Barba and

² For a more detailed discussion of the New Consensus fiscal policy theory and practice see paragraph 3.c below, Stirati 2015, and Costantini 2015:

Pivetti 2009, Taylor 2015), or accompanied by stickiness of spending habits as relative wages decrease and a drive for positional goods and keeping-up-with-the-jones behavior (Fazzari 2014, von Treek 2014). Many scholars instead regard housing prices as the main driver of the US mortgage-loaded indebtedness, along with low interest rates (Jordà et al 2016). Others, finally, point to the asset price gains coupled with deregulation of financial markets that unleashed a pre-existing desire for credit (Mian et al. 2013). Although there is a grain of truth in many (not all) of those explanations, I will focus on two main factors only: public policies and spending, and income and wealth inequality.

After a period of stability lasted throughout the 70s and the first half of the 80s, debt to income ratio started increasing in 1984, surging pronouncedly in the years from 1999 to 2007 and then starting to pick up again in 2015. Households from all the groups of income and net worth contributed. However, some degree of disaggregation reveals further interesting trends.

Unless otherwise stated, the stylized facts described below derive from my own calculations based on the microdata of the US Survey of Consumer Finances, a triennial survey, from 1989 to 2016.³

a. Income⁴

In order to look more closely at the distribution of debt among households, in table 1 and 2, I compare two different methods to estimate percentiles of income. Table 1 is based on quantiles of (gross) total household income.⁵ Table 2, instead, regroups households by quantiles of adjusted income, which consists in gross total household income minus paid alimonies and other financial support, divided by the number of household members. It is a per capita income within the household.

With the first method of percentile estimation, the quantile with the highest debt to income ratio in the entire time series is the 60-80th. Up to 2001, there exists a clear positive relation between

³ <https://www.federalreserve.gov/econres/scfindex.htm>

⁴ Unless otherwise stated, I will refer to the 95% bottom of the income and wealth distribution ladders and leave out the top 5%. All quantiles, however, are calculated based on the total population.

⁵ Because the SCF provides only gross income figures, from now on I will simply say income

debt to income and income up to the 95th percentile. After 2001, all quantiles present ratios that are very similar (except for the top 5%) but slightly higher toward the higher income groups.

When we take into account the number of household members, instead, the quantile with the highest debt to total household income ratio becomes the lowest (0-20th) and as the adjusted income increases, the ratio slightly declines.

After 2001, however, the trend and sometimes the ratios themselves become very similar across groups, no matter how estimated. But this tendency toward homogeneity should not suggest that all the groups behave according to similar financial preferences: each group holds different portfolios of debt, get into debt for different purposes and have different levels of fragility.

The bottom and the top groups, with the exception of the top 5%, position themselves very differently in the economy. If the upper middle class experienced, as I will show, the most noticeable financial distress in the last 15 years, the burden of debt is rapidly suffocating the chances for a decent life of the bottom 50%, especially as they reach older age.

In table 3, the existence of two distinct characteristics at the top and at the bottom starts to show more clearly: the frequency of indebted families increases across quantiles from 1989 to 2016 but the growth is most pronounced in the lowest and in the 60th to 80th percentiles.

A similar trend of growth and the convergence of debt to income ratios in just about any group, regardless of whether we account for family members or not, reveals that the highest share of debt falls on the shoulders of the top 50% (table 4 and 5). The quantile with more indebted families is the 80-95th.

b. Age, education, working status, and housing

Debt is mostly held by middle age cohorts (graphs 1 and 2) and by couples with or without children below 50 years old (graph 2 and 3): the impact of couples with two incomes being one of the factors accounting for this higher debt. However, households of all ages saw their indebtedness rise sharply. In fact, the steepest growth in mean real debt value belongs to the 65-74 age cohort.

Tables 6 and 7 confirm that it is not just an overlapping generation story: if we take into account all members of the family, household whose head is less than 35 years old are not

particularly concentrated in the lowest income quantiles. Instead, they spread across the distribution, with chances that, when they grow older, especially if the number of dependents rises, they will slide down to lower quantiles. Households whose head is older than 75 years of age appear mostly in the second quintile from the bottom up until 2007 (table 8).

One of the other factors that matter is working status (graph 5).⁶ Families whose head is self-employed, which typically have relatively higher income variability, make more use of debt, followed by dependent workers. Yet, there is a surprising rise in the real mean value of debt of the retired/disabled plus other household whose head is older than 65 and not working, also during the 2008 crisis. Families whose head is not working and under 65 years old also see their mean real debt grow but then slow down during the crisis.

Household have started to hold and take on debt until much older age and, given that the debt explosion started in 2001, we might well expect this phenomenon to intensify. Education loans make a very good example.

Table 9 shows that the frequency of education loans increases by the largest percentage among types of debt without interruption even during the last crisis. Graph 6 and 7 represent the real mean and median value of debt held by different age groups. Over time, older households carry an increasing amount. This phenomenon affects primarily the top below the 95th percentile.

Moreover, more educated households carry more debt than everybody else. This is true for both total and non mortgage debt (graphs 8 and 9). The steepest rate of growth pertains to the holders of a bachelor degree. The upward trend picks up after 2001: at the beginning of a decade of unprecedented stagnant wages for all, including at the top of the 95% bottom (Lazonick 2015).

Working household seem to reduce their debt burden after 2007. However, there is also an important change in their assets: participation to a retirement plan decreased for the bottom 50% and so did the mean value of those who hold IRA or defined contribution pensions and are not still retired (Bricker et al. 2017). Value and participation rate remained quite stable for the others but, once again, there is reason to worry for the future older generations.

⁶ The Survey of Consumer Finances provides information about the spouse as well. I intend to include that information or at least control for that factor in the future.

Looking more deeply into mortgages, we may notice several changes occurring. First, since 2007, there is a decline in the share of mortgages on total debt, to the point that in 2016, for the first time after 1998, credit card debt surpassed mortgages as the most frequent type of debt (table 9). One possible explanation may be that, after the crisis, many families found more difficult to add equity lines to their homes and thus relied on credit cards.

There has been a decline in the percentage of households holding mortgages (table 10) across groups. Also homeownership declined in the overall population, but driven by the bottom 50% (Bricker et al. 2017). The bottom 50% holds less mortgages, tends to get them at an older age, and carry them for a longer time than the top group (tables 11 and 12).

Finally, it is common to think that if one bears a mortgage, it is easier to add lines of credit and other loans to it. Yet, the rate of growth of non-mortgage debt of those who do not hold mortgages kept up with the non mortgage debt of those holding one since the beginning of the time series. In the bottom 50% the growth of both those groups' debt has converged up to the same rate in 2016 (graph 10 and 11).

The housing crisis affected inevitably wealth inequality, which jumped up to record heights after a period in which it had been mitigated by the boom in homeownership and home values (tables 13 and 14). The pre-crisis run towards homeownership might look as a hazardous move. However, we know that this is a typical phenomenon in countries in which the middle class feels insecure about their income and welfare (Fassler and Schuerz 2015)

The crisis did not affect significantly the households at the top of the wealth distribution. Those households hold still a large amount of debt, seeking to obtain liquidity against their less liquid assets – especially at times of low interest rates.

c. Where does financial fragility reside?

The drop in residential asset value was a key factor of financial distress in the last crisis. However, the households who hold the largest amount of mortgages (table 10), and who went bankrupt (table 15) and incurred in late payments (table 16) more often, were also the most hit by job losses (table 17). Financial distress measured by negative savings and late payments is widely

spread across income groups and more frequent in lower adjusted income groups (tables 18 and 19). People make up the difference by borrowing more and spending out of savings but also by postponing expenses, defaulting on payments and getting help from family and friends (graph 12). This happened very frequently immediately after 2007.

The risk of individuals holding education loans will depend on their “return on investment”, but the performance of wages in the last twenty years does ring an alarm bell for households as a whole.

Households that are going to retire in the near future or have just retired are a reason for concern. In fact, many households were forced to premature retirement or part-time because of the crisis, which affected their capacity to prepare for older age and increased their financial fragility. This was true especially for those holding mortgages with variable interest rates (Dushi et al 2010)

Moreover, regulatory changes and tax incentives since the 1980 have increased the number of workers with a defined contribution retirement plan rather than a defined benefit plan. Not only social security benefits decreased since that decade, but the shift to the new type of plans made household more vulnerable to market volatility⁷ and induced them to withdraw funds from these liquid plans in case of emergencies, thus impairing their future retirement checks.

Since older workers have a higher rate of defined benefits account than younger workers, this factor is going to play an even more acute role in future crises.

d. A summary of the key findings: Debt and inequality

1. The bottom 50% of the per capita income distribution holds less debt but carries the highest debt to income ratio. Despite the crisis, its total non-mortgage debt kept growing. After the crisis the rate of homeownership declined and so did the mortgages.
2. Education loans and the debts of the retired/disabled population continued to grow regardless of the crisis. The debt of the unemployed grew too but slowed down after the crisis – they likely postponed expenses like health treatments.

⁷ Doha et al. report a 20% value loss for retirement plans between 2007 and 2008.

3. In 2016, the post-crisis reduction of indebted families reverted, but the frequency of credit card debt exceeded that of mortgages for the first time after 1998.
4. The 60-95th group and the most educated of the population hold the greatest number of mortgages and debt in general. The upper middle class was the most exposed to layoffs and bankruptcies.
5. A strive for residential wealth is a typical result of greater income and wealth insecurity (Fassler and Schuerz 2015).
6. The retirement regime in place, as opposed to the Defined Benefit accounts, which were the only option before the 1980s, shifted the market risk from employers to employees and allows for withdrawals before retirement (Dushi et al. 2010).
7. Households at the top of the wealth distribution seek to obtain liquidity against their less liquid assets – especially at times of low interest rates.

3. The macroeconomic consequences

There is a fundamental asymmetry between public and firms' debt on one side and household debt on the other. The debt of government and firms as sectors, in fact, create the conditions (revenues) for itself to be repaid via the income multiplier. Household debt, instead, does not generate directly any revenue for those who bear it. Indirectly, it may stimulate spending thus generating positive profit expectations for firms, who then may start new investment plans and increase employment.

When Rosa Luxemburg in 1913 developed the concept of internal exports, she was describing the impossibility of extended reproduction and the necessity for capitalism to acquire external markets, that is a source of income lying outside the capitalist system. According to her, capitalism could avoid stagnation and under-consumption crises only within this impure and open setting, due to the contradiction of wages being both a cost and a source of income for firms. Importantly, she included public spending, and especially military expenditures, as sources of income that could allow firms to overcome the otherwise inevitable under-consumption (Luxemburg 1913).

Michał Kalecki reinterpreted the concept of internal exports with a more accurate macroeconomic framework in mind. Among various determinants of investment, he mentions net

exports and internal exports, which correspond to net public spending. In his analysis, such inflow of “new savings” enhances profit expectations. But most importantly, net exports and internal export to him are stabilizing factors that permit capitalism to overcome the distributive problems which, besides negative expectations and uncertainty, can lock the system into an under-employment situation (Kalecki 1971).

Put it simply, individual firms may want to reduce their labor costs, which would impair the sales of the sector and hence their total profits. But an autonomous spending either from the state or from abroad can substitute (or add on to) wages as a source of demand.

In the following paragraphs, I will borrow the idea of internal exports and attach it to household net borrowing, which is in fact an inflow of new savings. However, my interpretation, in the face of the stagnant economy of the last twenty years, is much closer to what Rosa Luxemburg had in mind. This is not because I disregard the multiplier effect, but because today’s rentier economy and increasingly concentrated markets look very similar to the imperialist and predatory capitalism she was witnessing at the time.

a. Personal Consumption

A common misconception is that, since the household debt boom, consumption in the US has been growing at higher rate than in the past. In the period of time between the 1960s and the beginning of the 1970s, real personal consumption expenditures (PCE) grew strongly and real income even more so (graph 13). During the whole period, in fact, the PCE to income ratio decreased on average, albeit PCE maintained a high rate of growth also during recessions. PCE growth then slowed down in each subsequent decade until 1999: from 3.5 to 3.3 % on average. Interestingly, in those years the recessions have very much impacted consumer spending. Finally, over the last decade, the rate of growth of real personal expenditures slackened significantly for the first time in the post-war history, although it did not turn negative until the financial crisis and the enduring recession. During the same period, disposable personal income experienced a slower rate of growth than before. The ratio of PCE over disposable personal income, instead, increased continuously, implying that, although consumer spending grew less than before in real terms, it still grew more than income. The latter stylized fact, together with the impressive persistence of

spending during the 2001 crisis and following jobless recovery led Cynamon and Fazzari (2014) to define the period of the Great Moderation as a Consumer Age.

In the last decade, there has been an impressive growth in the cost of education and health care (graph 14). Prices for basic needs like energy, food and public transportation have increased by around 50%. Accordingly, the share of services in total personal expenditures rose as well (graph 15). However, access to health care has been increasingly difficult for families that tend to postpone treatments or recur to the least expensive and worst quality. In fact, in 2009, the top 1% of spenders accounted for more than 20% of total spending (Schoenman 2012).

An interesting fact is that the volatility is rather low for all kind of expenses especially health care in the period between 1992 and 2007, except for durable goods and vehicles– in part because they are more expensive (graph 16).

Household debt, thus, has provided households with a source of goods and services and firms with a source of revenues that, especially after 1991, failed to reflect better wage and employment prospects. Firms, in other words, did not return the favor, retaining, or redistributing to shareholders who often are the same group taking such decisions, acquiring most of that liquidity, putting a hold on investment plans, and often having an important lending position.

b. The dual economy and the maximizing shareholder value ideology

“If, however, we are tempted to assert that money is the drink which stimulates the system to activity, we must remind ourselves that there may be several slips between the cup and the lip” (Keynes 1973, p.173).

During the 1970s and 80s, American corporate structure and strategies underwent a profound transformation. Worldwide competition, especially Japanese, put pressure on firms to cut costs and increase efficiency. At the same time, Reagan’s deregulations and the danger of hostile takeovers shifted the focus from long term investments to short term profits and their redistribution to shareholders to avoid a fall in asset prices (Lazonick, and O’Sullivan 2000, Vercelli 2016).

Organized labor and waged earners in general were the great losers of this transition. In fact, since the 1970s wages and productivity have taken diverging paths. Not only many workers were laid off due to restructuring, but the employment relations changed completely, thereby beginning a process that in the early 1990s had come to erase the previous norm of a life-long career in one company (Lazonick 2015).

If this process was at first justified by international competition, in the course of the 1990s and at the beginning the 2000s it became part of a predatory and financialized system. In this new *downsize and distribute* framework, the main goal of the firm is to allocate revenues among shareholders, especially by using earnings to manipulate the market and artificially boost the value of the stocks: the so-called practice of stocks buybacks (Lazonick 2016). Enormous resources got thus steered away from productive activity or were even withdrawn from circulation.

Servaas Storm (2017) further describes the interaction among sectoral income distribution and productivity and growth. Rejecting recent theories of techno-pessimism, he shows that labor productivity growth in manufacturing and professional and business services was more intense in 1995-08 than it was in 1948-72. In fact, the aggregate productivity slow-down in the recent decades is due to deindustrialization, and to the increase of the weight in the economy of less productive activities, especially in the sectors of services, health care, and restaurants.

Industries with more rapid productivity growth have displaced labor and show a reduction of the hours worked. This, he claims, is a sign of what Peter Temin (2016, 2017) calls the dual economy. That consists of interrelated but different paths for two main sectors of the economy: high productivity firms with relatively higher wages but stagnant and falling rate of employment, such as manufacturing, and low pay-low productivity sectors with rising rate of employment, such as the food industry and health assistance. Due to this separation, many workers had to find jobs in the stagnant sector, forcing down real wages in these activities. Wage raise claims in turn become more difficult also in the dynamic sector, slackening the pressure for firms to invest in innovative, labor saving techniques.

But there is yet another important feature of the system that explains the productive and political paralysis: the elites' capture of the state. Ferguson and Johnson (2013) expose the inevitable moral hazard problem deriving from having regulators control the actions of individuals

paid several times their salary and the resulting practice of the *revolving doors*. The pro-market stance of the whole range of Obama reforms should thus not come as a surprise (Stiglitz 2010).

Indeed, the lack of popularity of the measures taken all over the world in 2008 and after is widely documented. But only in the US newly rescued bankers openly assigned themselves record bonuses in the face of the struggling rest (Ferguson and Johnson 2013).

c. Household credit as internal exports and the public/private interactions

We know this unequal system can occasionally fail but, in spite of its fragility, it remains unchanged and unchallenged after decades. The logic behind this dynamics has historical rather than simply analytical explanations: it lays in the interaction between household and public debt.

Although the nature of net household transfers to firms is substantially different from public deficit spending, public spending has played a role in supporting and expanding household indebtedness as a new form of welfare and, at times, the two sources have been interchangeable.

It all started in the 1970s. Enthusiasm for Monetarism was growing among business elites and policy makers as inflation surged, budget deficits increased, and the slide in the dollar threatened to accelerate. Amidst a run on the currency, the Democratic President Carter appointed Paul Volcker, previously at Chase National Bank, as Federal Reserve Chair. Volcker immediately tightened the money supply and raised interest rates, inverting the direction of capital flows to U.S. and throwing the economy deeper into recession, as oil prices soared. Jimmy Carter failed reelection, as the old Democratic coalition and their Keynesian advisers were buried by the simple Draconian solutions offered by the Republicans and their economic advisers.

The new President, Ronald Reagan, brought in an economic package calling for sharp cuts in taxes, sweeping cuts in domestic spending, and large increases in military spending.

Some economists are partly responsible for the abrupt shift in public policies, which reflected the partial incorporation through Monetarism of an emerging economic doctrine with more radical anti-state implications. The new approach, called New Classical Macroeconomics (Barro, 1976; Lucas, 1975, 1977), developed in the late seventies and progressively gained ground. It proclaimed the total ineffectiveness of announced monetary or fiscal policies and only very

short-term effects for non-announced ones. It aimed to renew macroeconomics by going back to the neoclassical microfoundations. By the end of the 1980s it was the new mainstream.

The lesson drawn for policy was that public institutions should concentrate on reducing the uncertainty connected to their actions by enhancing transparency and credibility relative to their commitments. More specific political recommendations were also derived, including strict fiscal discipline and public debt reduction as well as deregulation of labor markets and central bank independence. In effect, this approach extended the scope of economic theory to regulation of the entire political process, spurring a literature about best practices in public policy, which declared that governments should only rely on a “policy by the rule” or “nudging”, while engaging in structural reforms to enhance flexibility of prices and wages. This would set the best environment for agents to formulate correct expectations.

At the same time, firms were undergoing the previously described transformation, with the stock markets roaring at each permanent downsizing, and thus creating a dilemma within the labor force – those holding pension funds and those who lost their jobs (Fumagalli 2006). In fact, the participation of household in financial markets had started to rise, especially through pension funds but also through indebtedness – linking thus the fate of their finances to that of a system that was destroying wage and career prospects of workers as a class.

But it was after the 1990-91 crisis – the so-called white collar crisis – that indebtedness picked up, only to reach new record rates during the dot com crisis and the ensuing second jobless recovery. It was time for more sophisticated strategies for the management of an unstable, financially exposed economy to see the light of day.

From the original models and methodology of the New Classical Macroeconomics a whole literature had developed, that included some partial deviations from mere austerity (Tcherneva 2008). It consists in many slightly different versions of the same models, whose basic assumptions are modified each time by adding a limited range of exceptions. Those are often seen as factors that might partially snag the perfect machine and make room for limited public intervention. It is interesting to notice that no endogenous explanation for those hampering factors is provided. They are, in fact, just exogenously determined exceptions (Tcherneva, 2008; Stirati, 2014).

The literature includes New Keynesian models that allow, like the older monetarist model, for some short term fluctuations away from potential output that can be addressed by means of supply side policies, monetary policy, and just recently also some temporary coordinated fiscal and monetary policy (Kriesler and Lavoie, 2007).

Just as an example, in the aftermath of the 2007 financial crisis Bernanke cautioned: “[...] the design and implementation of the fiscal program are critically important. A fiscal initiative at this juncture could prove quite counterproductive, if (for example) it provided economic stimulus at the wrong time or compromised fiscal discipline in the longer term” (Bernanke, 2008). Bernanke explained the criteria for setting the limits of government intervention as follows: “any program should be explicitly temporary, both to avoid unwanted stimulus beyond the near-term horizon and, importantly, to preclude an increase in the federal government's structural budget deficit” (Bernanke, 2008).

The ad hoc character of the models was admitted by Michael Woodford, when he explained that his models respond to the needs of central bankers, especially of the Federal Reserve, for theoretical justification for their occasional monetary easing (Tcherneva, 2008).

Indeed, a more accurate look at the policies implemented suggests that what has been presented as a reduction of the scope of the government in the economy, from the privatization of social services and public goods started in the 1980s and the current extraordinary measures, really is an active reallocation of public resources, with major social and economic consequences.

Fiscal and monetary policies have remained the way for political institutions to cope with the growing size and complexity of societies and economies, thanks to their capacity to produce a wide range of effects from redistribution to recovery or plain recession. Unfortunately for elites, however, the problem of consensus remains, as the impoverishment of the working class does not encounter a lot of supporters among the populace.

Hence, quite conveniently, household net borrowing comes in as a substitutive source of internal exports: an appeasing factor that liberates temporarily public spending from the necessity to support aggregate demand, which would otherwise fall due to income inequality, and to provide for the essential needs of the population (graph 17 and 18). Also, the temporary nature of the public transfers to the credit system, whether through quantitative easing or fiscal policy, allows for a

compression of the opportunities for political debate around the allocation of resources. In fact, the extraordinary efforts happening at times of distress, get much less ex ante scrutiny than they would otherwise have (Costantini 2015).

4. Conclusions: A Fire in the Warehouse

According to David Ricardo, the consumption of unproductive workers is “[...] just as necessary and as useful with a view to future production, as a fire, which should consume in the manufacturers warehouse the goods which those unproductive labourers would otherwise consume” (Ricardo, 1951, p. 421).

In other words, any consumption out of a revenue that is not the result of a productive activity is irrelevant in terms of growth.

This statement is very much outdated for several reasons: most importantly, the definition of unproductive workers and unproductive activities, that refers to the service sector. Moreover, by defending Say's law and thus misinterpreting the factors inducing investment, Ricardo disregards completely the relevance of aggregate demand as a stimulus for growth: a lesson taught by the Great Depression and well recognized, among others, by John Maynard Keynes and Michał Kalecki.

Nevertheless, today that the glorious days of (commercial) Keynesianism are long gone, this fire in the warehouse describes unexpectedly a familiar scenario, in which the “autonomous” spending of the household sector, entrenched in a financialized system of production a sufficient management of the economy, ensures high profits to the corporate sector, but does not trigger an increase in investment sufficient for household debt to be sustainable (Barba and Pivetti 2009).

Stylized facts show that household indebtedness spreads across the income and wealth distribution ladders. On the one hand, the upper middle class holds the largest share of debt and was severely hit by the 2008 crisis, on the other, the bottom 50% is quickly suffocating over record high debt to income ratios, all while postponing essential expenditures. The case of education loans, the unprecedented financial fragility of the retired or near retirement workers and the evidence that household, especially at the bottom, carry their debt well after retirement are the

most worrisome signals at this time. All those are wake up calls for countries that started deregulating, privatizing and cutting social security in more recent times than the US.

The rise of household indebtedness since 1984 in US was policy driven. Public policies acted directly through tax incentives and government guarantees, and indirectly by the deregulation and privatization of key markets.

Firms and government have relied on household debt in order to avoid in the short term the consequences of inequality and wage compression on revenues and political credibility respectively. To make this system persist, governments and central banks in turn have learned to deal with emergencies avoiding a disruption of the market structure and power.

This reciprocally compensating surge and fall of household net borrowing and public net spending is a source of internal exports that keeps the system going and maintains the current elite's control of the markets and the state.

But the *timely and short-lived* nature of such stimulus does not provide the appropriate context for a democratic discussion over a fair allocation of resources. In fact, it prevents prosperity and bottom up political and social reform.

Bibliography

- Barba A. and M. Pivetti (2009) “Rising household debt: Its causes and macroeconomic implications - a long-period analysis.” *Cambridge Journal of Economics*, vol. 33, no.1, pp. 113–137
- Barro, R.J. (1976) “Rational Expectations and the Role of Monetary Policy.” *Journal of Monetary Economics*, vol. 2, no. 1, 1–32.
- Bernanke, B. 2008. *The Economic Outlook*, Testimony before the Committee on the Budget, U.S. House of Representatives.
- Bricker, J. Dettling L.J., Henriques A., Hsu J., Jacobs L., Moore K.B., Pack S., Sabelhaus J., Thompson J., and R. A. Windle (2017) “Changes in U.S. Family Finances from 2013 to 2016: Evidence from the Survey of Consumer Finances.” *Federal Reserve Bulletin*, vol. 103, no.
- Caffè, F. 1976. *Un'economia in ritardo. contributi alla critica della recente politica economica italiana*, Turin, Bollati Boringhieri.
- Costabile, L. (1980) *Malthus: sviluppo e ristagno della produzione capitalistica*: Roma.
- Costantini O. (2015) “Cyclically Adjusted Budget: History and Exegesis of a Fateful Estimate” *INET Working Paper series*, n. 24.
- Costantini O. (2017) “Political economy of the Stability and Growth Pact” *European Journal of Economics and Economic Policy*, vol. 14, n. 3, 1-18.
- Costantini O. (2018) “Invented in America: birth and evolution of the cyclically adjusted budget rule, 1933–1961.” *History of Political Economy*, vol. 50, n. 1, in print.
- Cynamon B. Z. and Fazzari S. M. (2014) “Inequality, the Great Recession, and Slow Recovery.” *INET Working Paper series*, n. 9
- Dushi I., Friedberg L. and A. Webb (2010) “What is the Impact of Foreclosures in Retirement Security?” *Center for Retirement Research Working Paper* no. 17.
- Fessler and M. Schuerz (2015) “Private Wealth Across European Countries: The Role of Income, Inheritance and the Welfare State.” *ECB Working Paper* no. 1847.
- Ferguson T. and R. Johnson. (2013) “When Wolves Cry Wolf: Systemic Financial Crises and the

Myth of the Danaid Jar.” In Seccareccia M. and L. P. Rochon (eds) *Monetary Economies of Production: Banking and Financial Circuits and the Role of the State*, Edward Elgar Publishing: Cheltenham.

Fumagalli, A. (2006) *Bioeconomia e capitalismo cognitivo*. Carocci: Milano.

Graziani, A. (2003) *The Monetary Theory of Production*. Cambridge University Press: Cambridge.

Lazonick, W. and M. O’Sullivan (2000) “Maximizing shareholder value: a new ideology for corporate governance.” *Economy and Society*, vol. 29, p. 13–35.

Lazonick W. (2015) “Labor in the Twenty-First Century: The Top 0.1% and the Disappearing Middle-Class.” *INET Working Paper Series*, n. 4.

Lazonick W. (2016) “The Value-Extracting CEO: How Executive Stock-Based Pay Undermines Investment in Productive Capabilities.” *INET Working Paper Series*, n. 58.

Lucas, R.E. (1975) “Equilibrium Model of the Business Cycle.” *Journal of Political Economy*, vol. 83, no. 6, 1113-44.

Lucas, R.E. (1977) “Understanding Business Cycles.” *Carnegie-Rochester Conference Series on Public Policy*, vol. 5, no. 1, 7–29.

Luxemburg, R. ([1913]2003) *The accumulation of capital*. Routledge: Abingdon.

Jordà, Ò., Schularick, M. and Taylor, A. M. (2016) "The great mortgaging: housing finance, crises and business cycles." *Economic Policy* vol. 31, no. 85, pp. 107-152.

Kalecki M. (1971) *Selected essays on the dynamics of the capitalist economy 1933-1970*. Cambridge University Press: Cambridge.

Keynes J. M. ([1936]1973) *The General Theory of Employment Interest and Money*. Macmillan: London.

Kriesler, P. and Lavoie, M. (2007) “The New Consensus on Monetary Policy and its Post-Keynesian Critique.” *Review of Political Economy*, vol. 19, no. 3, 387–404.

- Mian, A., Rao, K., & Sufi, A. (2013). "Household balance sheets, consumption, and the economic slump." *The Quarterly Journal of Economics*, vol. 128, n. 4, pp. 1687-1726.
- Ricardo, D. (1951) "Notes on Malthus," in Sraffa P. and M. H. Dobb (eds.) *The Works and Correspondence of David Ricardo*, Vol. II: Cambridge.
- Schoenman J. A. (2012) "The concentration of Health Care Spending." *NIHCM Foundation Data Brief* (July).
- Seccareccia, M. (2012) "Financialization and the Transformation of Commercial Banking: Understanding the Recent Canadian Experience before and during the International Financial Crisis." *Journal of Post Keynesian Economics*, vol. 35, no. 2, pp. 277-300.
- Stiglitz J. (2010) *Freefall. America, Free Markets, and the Sinking of the World Economy*. Norton and Co.: New York.
- Stirati A. (2014) "Real Wages in the Business Cycle and the Theory of Income Distribution: an Unresolved Conflict Between Theory and Facts in Mainstream Macroeconomics." *MPRA paper*, no. 53743.
- Storm S. (2017) "The New Normal: Demand, Secular Stagnation and the Vanishing Middle-Class." *INET Working Paper Series*, n.55.
- Taylor L., Omer O. and A. Rezai (2015) "Wealth Concentration, Income Distribution, and Alternatives for the USA." *INET Working Paper Series* No. 17.
- Temin P. (2016) "The American Dual Economy: Race, Globalization, and the Politics of exclusion." *INET Working Paper series*, n. 26.
- Temin P. (2017) *The Vanishing Middle Class*. MIT Press: Cambridge.
- Tcherneva P.R. (2008) "The Return of Fiscal Policy: Can the New Developments in the New Economic Consensus Be Reconciled with the Post-Keynesian View?" *Levy Economics Institute Working Paper*, no. 539.
- Van Treek T. (2014) "Did Inequality Cause the U.S. Financial Crisis?" *Journal of Economic Surveys*, vol. 28, n. 3 (July), pp. 421–448.
- Woodford M. and G. B. Eggertsson. (2004) "Optimal Monetary and Fiscal Policy in a Liquidity

Trap.” *NBER International Seminar on Macroeconomics*.

Vercelli A. (2016) *Crisis and Sustainability: The Delusion of Free Markets*. Palgrave Macmillan: London.

APPENDIX WITH GRAPHS AND TABLES

TABLES

1. Debt to income ratio by income
2. Debt to income ratio by adjusted income

DEBT TO INCOME RATIO BY QUANTILE OF INCOME

	0-20	20-40	40-60	60-80	80-95	95-100
1989	56.9	56.3	69.0	85.9	100.7	81.7
1992	73.4	67.5	85.2	90.2	96.9	93.8
1995	97.7	81.0	85.8	102.3	99.6	71.9
1998	93.4	87.0	101.8	119.8	107.0	73.3
2001	85.6	81.8	98.3	103.9	100.6	58.7
2004	139.0	124.0	137.2	140.3	136.1	88.9
2007	143.5	109.1	152.3	170.4	155.9	70.9
2010	122.5	125.8	160.1	161.4	143.8	94.0
2013	149.8	114.5	124.2	138.8	143.1	71.3
2016	152.9	108.3	117.0	129.4	131.7	60.8

DEBT TO INCOME RATIO BY QUANTILE OF ADJUSTED INCOME

	0-20	20-40	40-60	60-80	80-95	95-100
1989	96.5	81.7	84.9	78.8	96.1	72.5
1992	105.9	94.8	96.7	85.9	86.9	86.5
1995	118.4	102.5	102.0	98.3	84.9	66.1
1998	121.9	114.7	118.8	106.0	103.1	62.2
2001	121.9	106.4	106.9	94.7	91.4	54.3
2004	167.9	143.6	151.8	131.9	124.4	83.3
2007	188.5	153.9	171.4	152.7	137.3	64.8
2010	222.5	155.8	164.2	155.0	137.1	84.0
2013	151.9	146.4	139.5	144.5	123.1	64.2
2016	163.9	122.9	128.9	138.3	122.5	50.4

3. Percentage of families with debt

PERCENTAGE OF FAMILIES WITH DEBT					
	0-20	20-40	40-60	60-80	80-95
1989	46.7	47.6	55.6	66.9	84.2
1992	48.4	44.9	59.9	70.1	83.2
1995	44.2	48.3	57.1	70.5	84.1
1998	41.5	47.5	62.3	72.5	85.3
2001	42.0	50.6	64.9	71.8	85.6
2004	43.7	58.7	59.4	77.5	85.4
2007	46.1	49.8	60.7	77.4	89.0
2010	49.8	46.5	63.1	74.0	86.7
2013	54.0	49.5	59.7	73.2	86.9
2016	58.0	55.9	63.8	80.1	88.0

4. Debt to income ratio in 50% and top 50-95%

5. Debt to adjusted income ratio in 50% and top 50-95%

DEBT TO INCOME BY INCOME

	0-50th	50th-95th
1989	59.0	91.4
1992	75.0	92.1
1995	80.9	99.6
1998	90.9	111.3
2001	90.8	100.6
2004	124.3	139.1
2007	122.0	160.8
2010	133.3	153.5
2013	115.4	140.0
2016	108.5	129.0

DEBT TO INCOME BY ADJ INCOME

	0-50th	50th-95th
1989	85.0	88.0
1992	97.5	88.2
1995	105.6	93.1
1998	117.2	106.9
2001	108.5	95.6
2004	149.5	132.5

2007	168.7	148.4
2010	176.2	148.0
2013	143.4	134.7
2016	135.0	129.7

6. Percentage of households whose head is <35 in quantiles of total income
7. Percentage of households whose head is <35 in quantiles of total adjusted income

	0-20th	20-40th	40-60th	60-80th	80-95th
1989	24.3	30.8	16.0	20.3	8.5
1992	11.6	9.7	12.4	11.5	5.2
1995	22.3	21.8	23.7	21.0	11.1
1998	24.5	20.5	24.3	20.1	10.6
2001	22.7	22.9	23.8	20.6	10.0
2004	24.3	26.5	19.9	19.0	10.3
2007	23.2	25.5	22.5	18.5	10.3
2010	26.7	23.1	20.5	21.4	8.3
2013	26.8	24.8	19.6	18.1	10.7
2016	26.9	23.5	23.6	18.6	7.3

	0-20th	20-40th	40-60th	60-80th	80-95th
1989	8.0	9.9	20.3	19.2	33.0
1992	4.0	4.7	5.8	11.0	17.3
1995	9.5	10.1	10.4	21.9	33.8
1998	9.6	12.7	10.5	22.0	32.7
2001	8.9	8.4	14.9	22.6	33.1
2004	8.3	11.8	14.7	24.4	28.8
2007	6.8	11.6	14.1	24.4	33.2
2010	8.2	11.2	16.5	24.6	31.4
2013	6.8	12.8	17.5	22.9	29.4
2016	8.7	13.4	14.8	25.0	33.1

8. Percentage of households whose head is ≥ 75 in adjusted income group

PERCENTAGE OF >75 WITHIN ADJ INCOME GROUPS					
	0-20th	20-40th	40-60th	60-80th	80-95th
1989	7.7	30.3	16.0	22.3	21.7
1992	10.2	20.0	27.1	21.9	19.6
1995	9.3	24.4	20.1	25.8	17.4
1998	11.6	26.5	20.6	22.1	15.6
2001	12.3	19.7	22.1	25.1	17.9
2004	8.8	22.2	26.0	23.9	16.1
2007	10.3	27.1	26.2	21.6	13.2
2010	4.6	17.0	26.7	27.9	20.1
2013	4.3	20.2	27.8	28.2	17.3
2016	3.1	16.8	25.6	25.3	24.8

9. Frequency of debt by type in bottom 95% of the income distribution

FREQUENCY OF TYPES OF DEBT ON TOTAL DEBTS			
	MORTGAGES	CREDIT CARD	EDUCATION LOANS
1989	50.1	56.9	14.2
1992	52.5	62.0	14.5
1995	52.6	65.9	15.5
1998	58.7	61.3	14.9
2001	59.1	60.3	15.3
2004	62.0	62.5	17.1
2007	60.2	61.9	20.3
2010	63.3	54.6	25.6
2013	57.7	53.2	26.5
2016	53.3	58.5	28.4

10. Households with first lien mortgages by adjusted income quantiles

% OF HHS WITH FIRST LIEN MRTG BY GROUP OF ADJ INCOME					
	0-20	20-40	40-60	60-80	80-95
1989	2.0	8.0	14.6	28.9	44.1
1992	12.3	6.6	17.9	25.7	49.4
1995	7.3	9.9	19.2	28.2	48.1
1998	8.8	12.4	23.3	31.5	56.9
2001	7.5	14.1	24.4	30.4	56.8
2004	7.4	19.3	23.3	39.2	60.3
2007	10.0	12.5	23.4	34.9	63.1
2010	11.5	12.1	23.8	42.2	64.6
2013	16.5	13.1	20.3	34.8	57.8
2016	11.6	13.8	20.9	35.6	55.4

11. Households with first lien mortgages by age in the bottom 50% of the adjusted income distribution
12. Households with first lien mortgages in the top 50-95th quantile of the adjusted income distribution

BOTTOM 50%	1989	1992	1995	1998	2001	2004	2007	2010	2013	2016
<35	4.9	7.2	8.2	14.3	11.8	11.9	7.1	5.8	6.2	4.9
35-44	6.8	18.7	18.1	21.2	20.5	27.6	13.9	25.1	20.1	14.4
45-54	6.2	18.9	13.4	17.2	18.2	28.8	25.4	24.3	23.3	14.9
55-64	19.3	13.4	20.2	21.0	22.1	13.9	20.9	25.5	20.0	21.4
65-74	7.7	9.2	9.6	16.3	19.5	14.1	20.7	16.8	21.4	18.8
>74	3.3	6.2	2.6	4.5	4.0	12.6	8.4	9.3	12.3	16.3

50-95TH	1989	1992	1995	1998	2001	2004	2007	2010	2013	2016
<35	41.2	41.9	39.9	50.7	49.4	53.3	50.8	51.8	46.4	44.0
35-44	57.3	63.6	58.4	66.2	66.3	73.8	68.4	70.2	62.5	60.7
45-54	63.1	65.8	66.6	62.8	65.8	72.5	70.5	68.7	66.0	60.7
55-64	38.6	47.9	49.6	53.8	49.5	48.4	54.3	58.4	51.6	54.7
65-74	20.1	17.9	29.0	31.5	35.2	31.6	38.6	40.3	42.0	41.2
>74	9.1	11.8	4.4	12.3	10.2	17.3	12.6	29.5	23.3	26.4

13. Gini index of wealth inequality in the total population with and without housing assets
14. Gini index of wealth inequality in the bottom 95% with and without housing assets

	GINI ASSETS	GINI NO HOUSES	BOTTOM95%	WEALTH	WEALTH-HOUSES
1989	0.75	0.84	1989	0.59	0.69
1992	0.74	0.84	1992	0.57	0.67
1995	0.74	0.83	1995	0.55	0.65
1998	0.75	0.83	1998	0.56	0.66
2001	0.76	0.84	2001	0.59	0.68
2004	0.76	0.85	2004	0.59	0.69
2007	0.76	0.85	2007	0.58	0.68
2010	0.78	0.86	2010	0.61	0.72
2013	0.79	0.86	2013	0.63	0.72
2016	0.81	0.88	2016	0.63	0.72

15. Frequency of bankruptcies by adjusted income group

DID YOU BANKRUPT IN THE LAST 5 YEARS?					
	0-20th	20-40th	40-60th	60-80th	80-95th
1998	1.4	3.5	5.4	5.4	4.4
2001	1.3	2.4	6.2	5.9	4.9
2004	3.2	3.3	3.4	6.0	5.8
2007	2.9	3.2	4.4	5.1	3.9
2010	1.7	3.0	3.6	4.6	4.1
2013	2.9	2.7	3.4	5.4	5.7
2016	1.7	2.8	2.2	3.2	4.1

16. Late payments by adjusted income groups

WERE YOU LATE IN YOUR PAYMENTS?					
	0-20th	20-40th	40-60th	60-80th	80-95th
1989	16.3	14.6	20.1	20.0	19.3
1992	12.2	11.8	11.4	12.9	13.0
1995	9.9	10.3	14.3	20.2	21.0
1998	14.3	15.4	14.8	19.8	18.4
2001	11.6	14.7	17.3	16.3	14.0
2004	15.9	15.3	18.5	17.5	18.0
2007	23.2	25.0	25.7	27.8	19.0
2010	16.8	15.1	20.1	19.8	17.8
2013	15.5	13.2	14.4	17.2	17.2
2016	18.1	12.7	15.6	16.5	13.1

17. Layoffs of head or spouse by adjusted income group

LAID OFF HEAD OR SPOUSE AND STILL UNEMPLOYED					
	0-20th	20-40th	40-60th	60-80th	80-95th
1998	1.7	1.7	1.6	1.5	1.2
2001	0.9	2.2	2.6	1.4	1.6
2004	1.4	0.2	1.4	2.1	1.8
2007	1.1	0.9	1.8	2.5	1.3
2010	1.4	1.2	2.1	2.1	2.6
2013	1.3	1.7	1.8	2.2	2.0
2016	0.6	1.4	1.8	2.4	1.3

18. Occurrence of negative savings by adjusted income groups

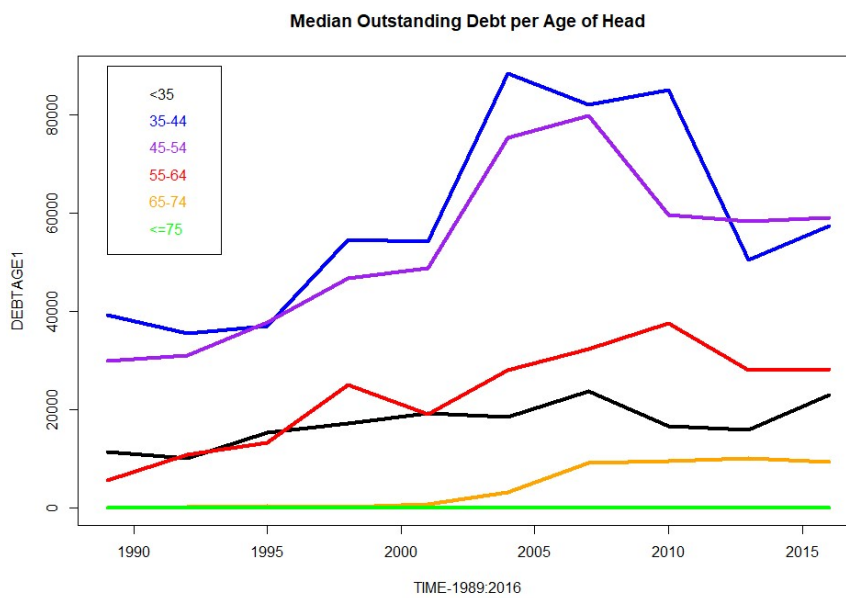
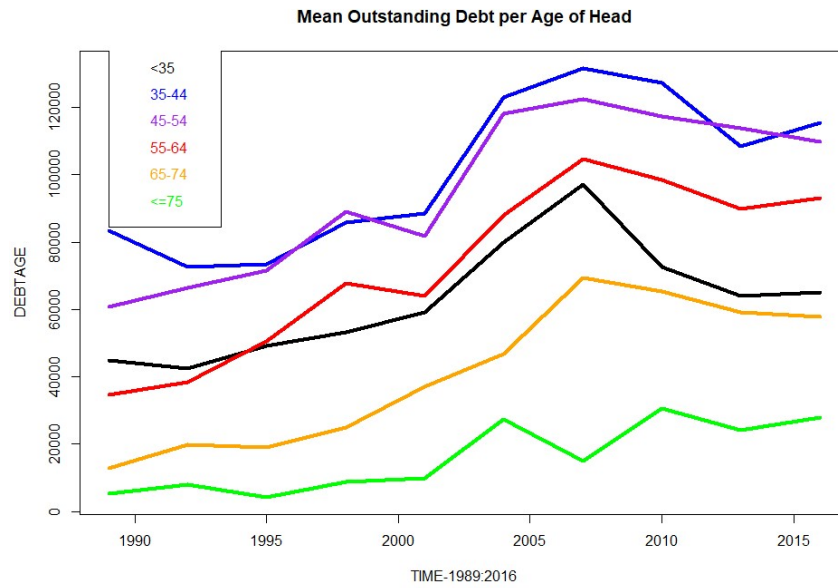
19. Occurrence of zero savings by adjusted income group

	SPENDING EXCEEDED INCOME				
	0-20	20-40	40-60	60-80	80-95
1989	20.0	12.2	12.0	7.6	4.5
1992	21.2	23.6	20.7	16.7	13.6
1995	26.9	23.0	16.8	20.0	11.7
1998	19.6	16.6	20.7	17.5	12.4
2001	24.8	21.0	21.5	14.5	11.3
2004	26.5	21.2	18.8	17.2	13.6
2007	17.8	21.3	22.8	15.3	14.0
2010	23.0	25.0	23.0	17.1	14.6
2013	27.6	19.3	19.7	17.8	12.0
2016	24.5	23.5	20.4	14.6	11.8

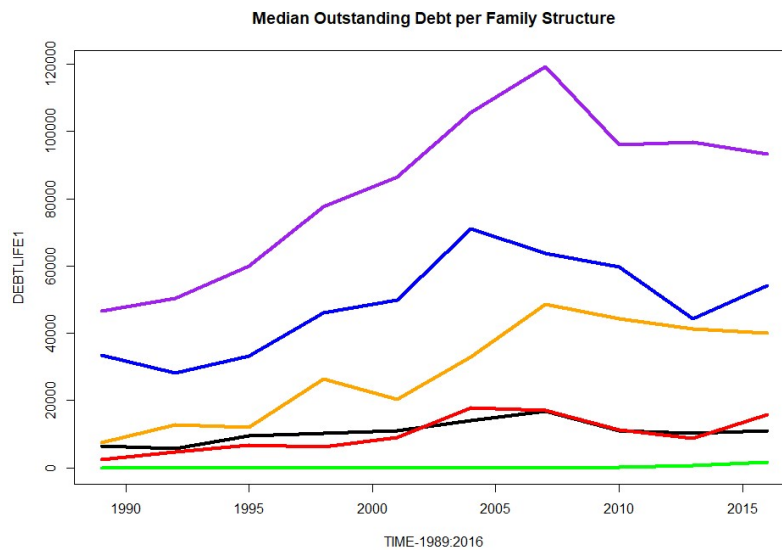
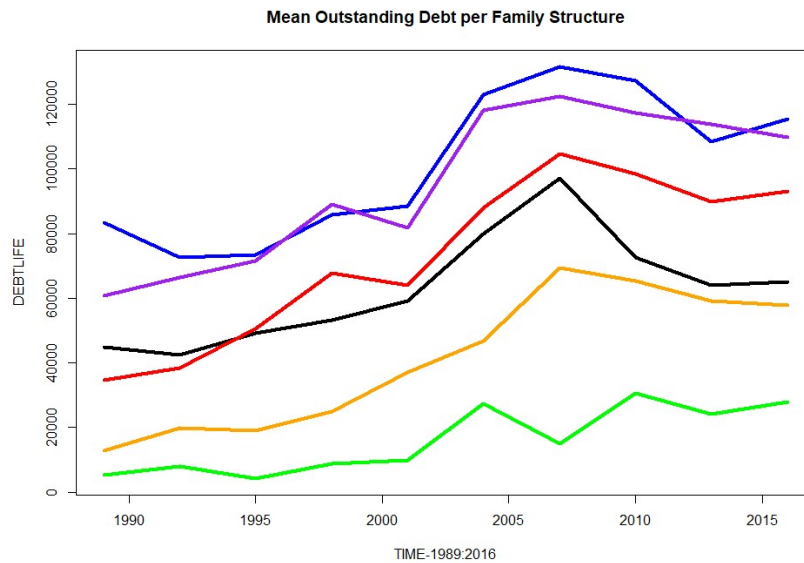
	SPENDING EQUALED INCOME				
	0-20	20-40	40-60	60-80	80-95
1989	23.6	47.9	42.7	21.3	16.1
1992	49.8	48.9	39.3	28.4	21.0
1995	45.8	42.3	48.6	31.0	24.7
1998	51.4	52.6	41.4	29.8	24.4
2001	52.6	44.7	35.5	26.0	20.0
2004	46.7	41.0	41.4	33.5	22.6
2007	44.6	45.4	40.1	33.1	21.6
2010	44.8	43.1	38.3	35.2	27.4
2013	42.2	47.3	43.4	36.4	27.4
2016	41.6	45.1	40.0	31.4	23.9

GRAPHS

1. Mean real debt value of debt by age cohort
2. Median real debt value by age cohort



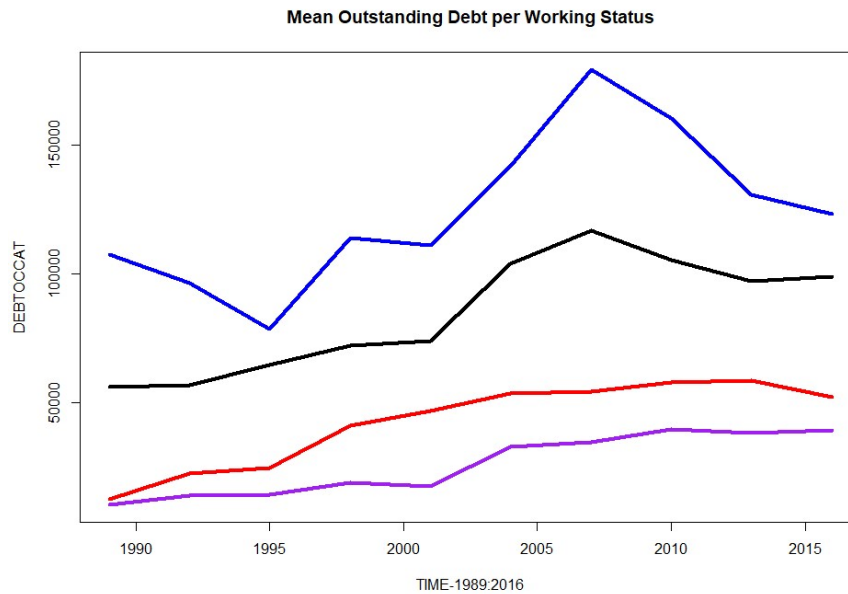
3. Mean real debt value by family structure
4. Median real debt value by family structure



head < 55 + not married/LWP + no children
 head < 55 + married/LWP + no children
 head >= 55 + working

head < 55 + not married/LWP + children
 head < 55 + married/LWP + children
 head >= 55 + not working

5. Mean real value of debt by working status



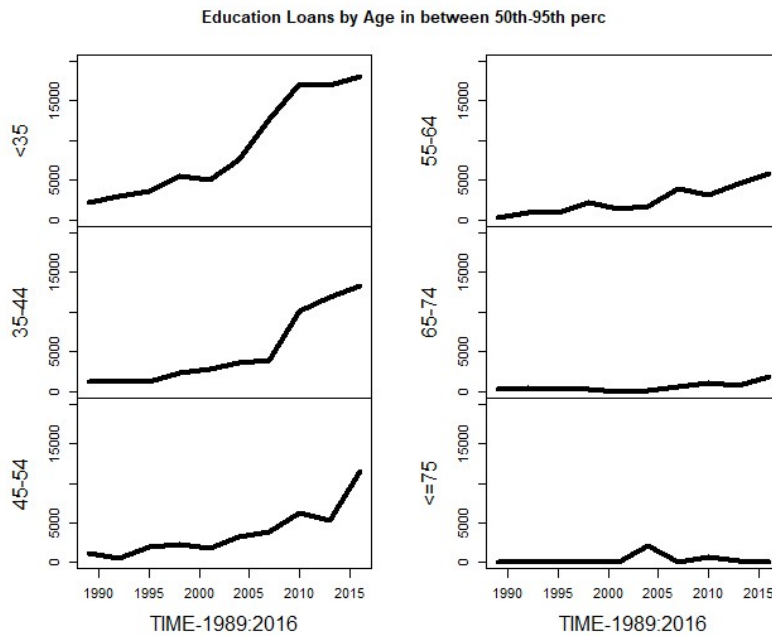
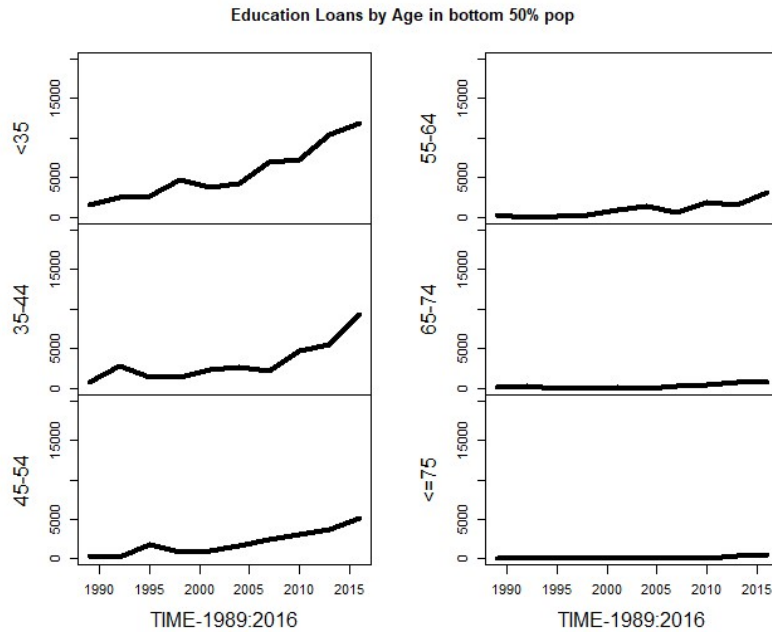
work for someone else

self-employed/partnership

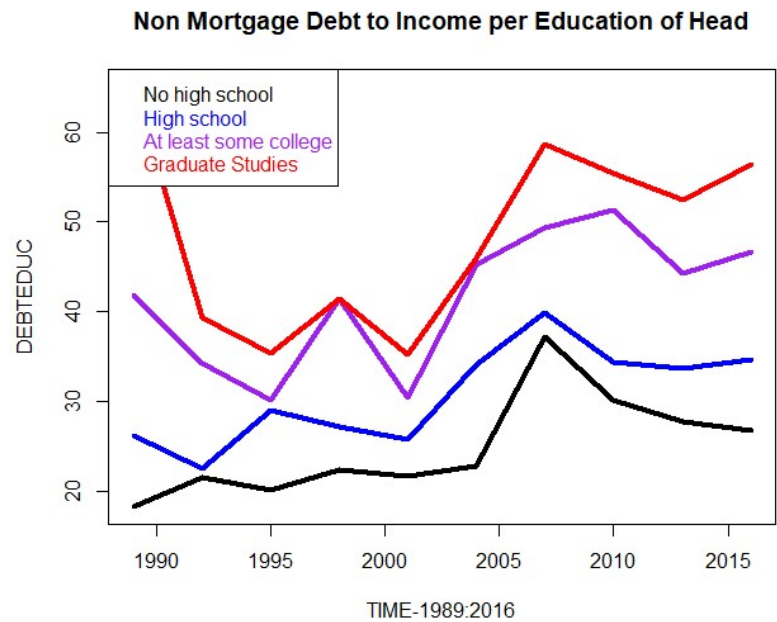
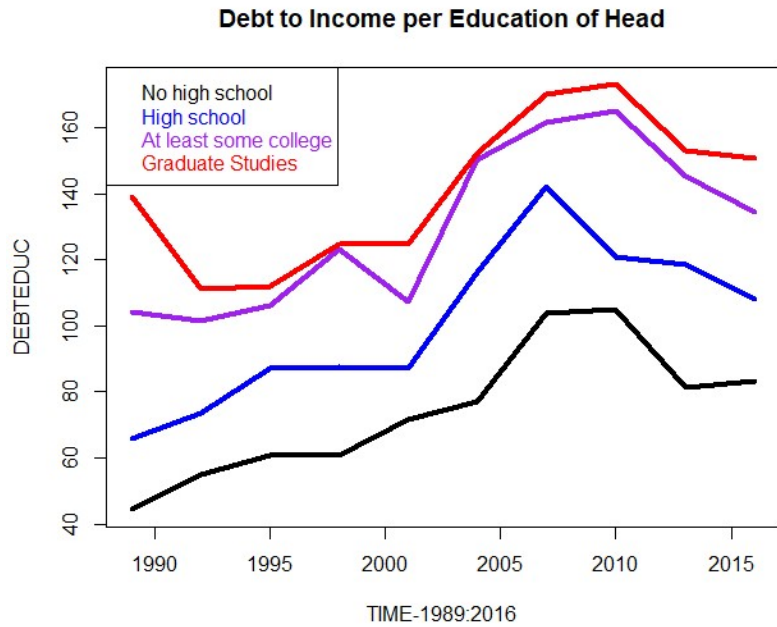
retired/disabled + not working and age 65 or older

other groups not working under 65

6. Mean value of education loans by age in the bottom 50% of the adjusted income distribution
7. Mean real value of education loans by age in the top 50-95th quantile of adjusted income distribution

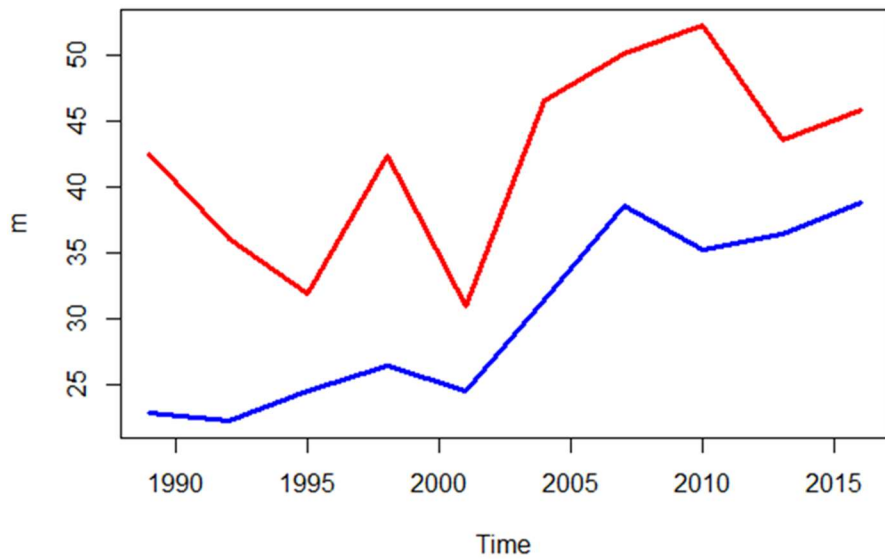


8. Mean real value of total debt by education of the head of the household
9. Mean real value of total non mortgage debt by education of the head of the family

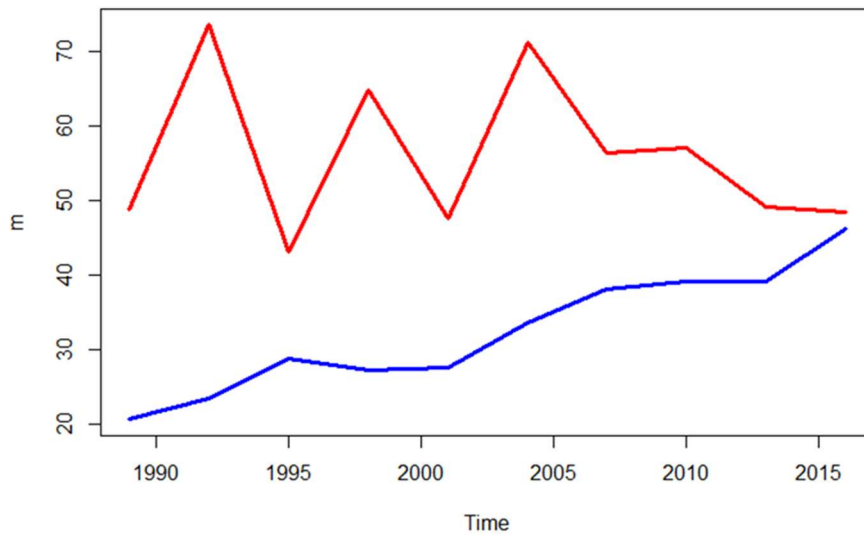


10. Real non mortgage debt growth of households with and without mortgage
11. Real non mortgage debt growth of households with and without debt in the bottom 50% of adjusted income distribution

NON MORTGAGE DEBT TO INCOME RATE OF GROWTH



NON MORTGAGE DEBT TO INCOME RATE OF GROWTH- BOTTOM 50%

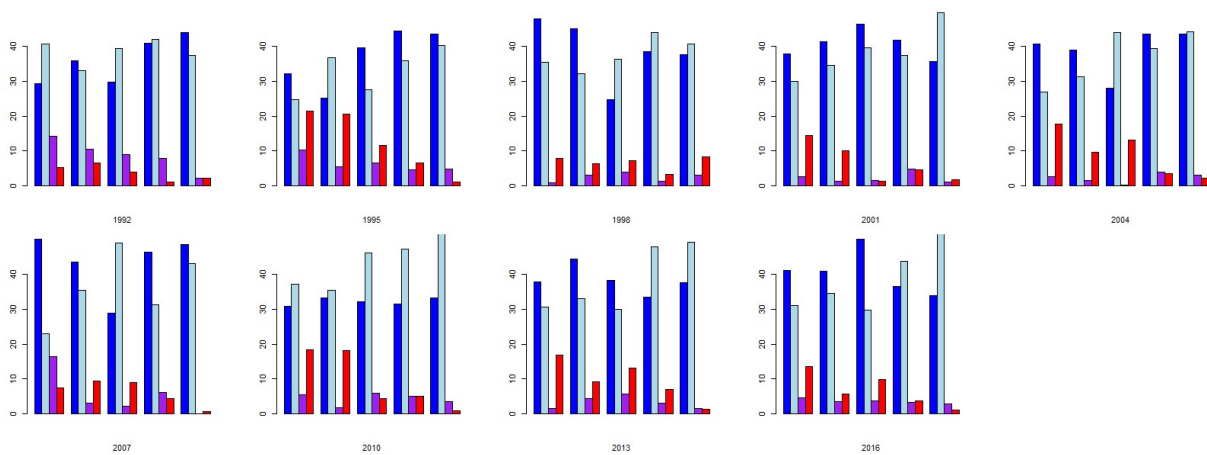


12. Ways to make up the difference between spending and income.

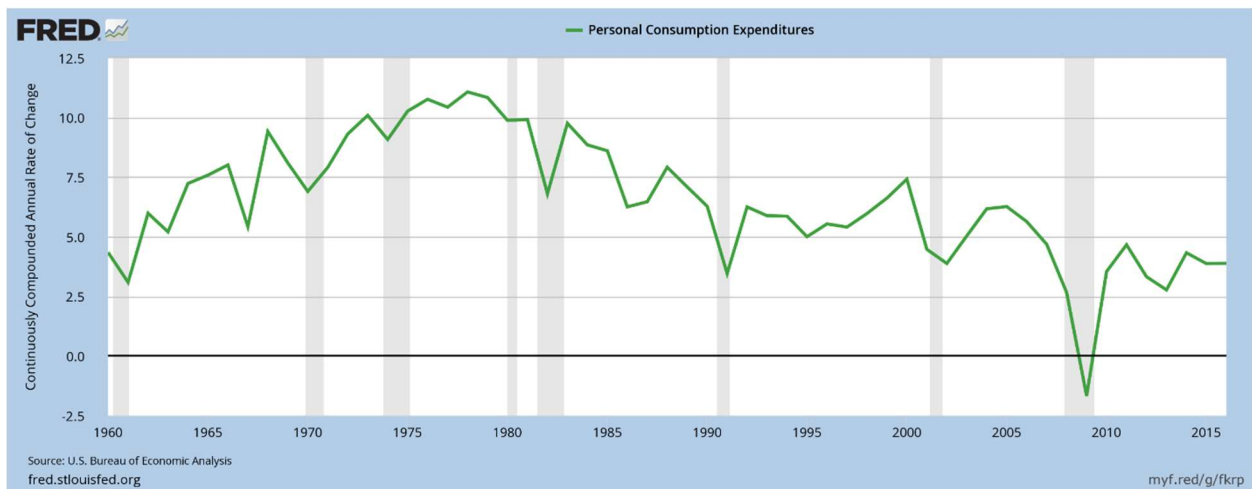
Frequency by quantile of adjusted income:

0-20th 20-40th 40-60th 60-80th 80-95th

- 1 Borrowed money
- 2 Spent out of savings/investments
- 3 Got behind on payments/ didn't pay bills
- 4 Help from others



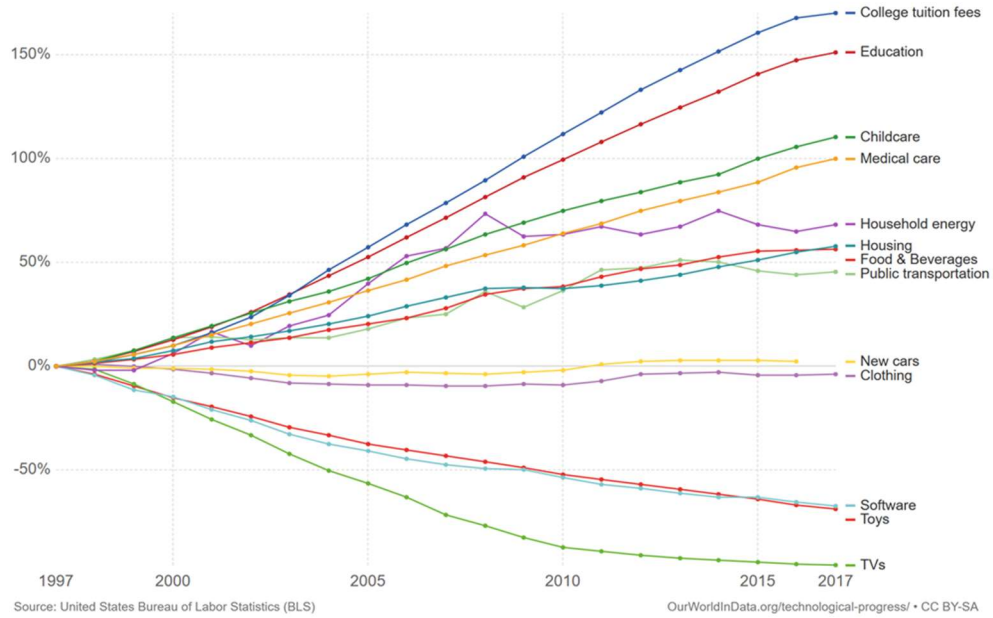
13. Real Personal Expenditures Rate of Growth



14. Percentage price change by good and service

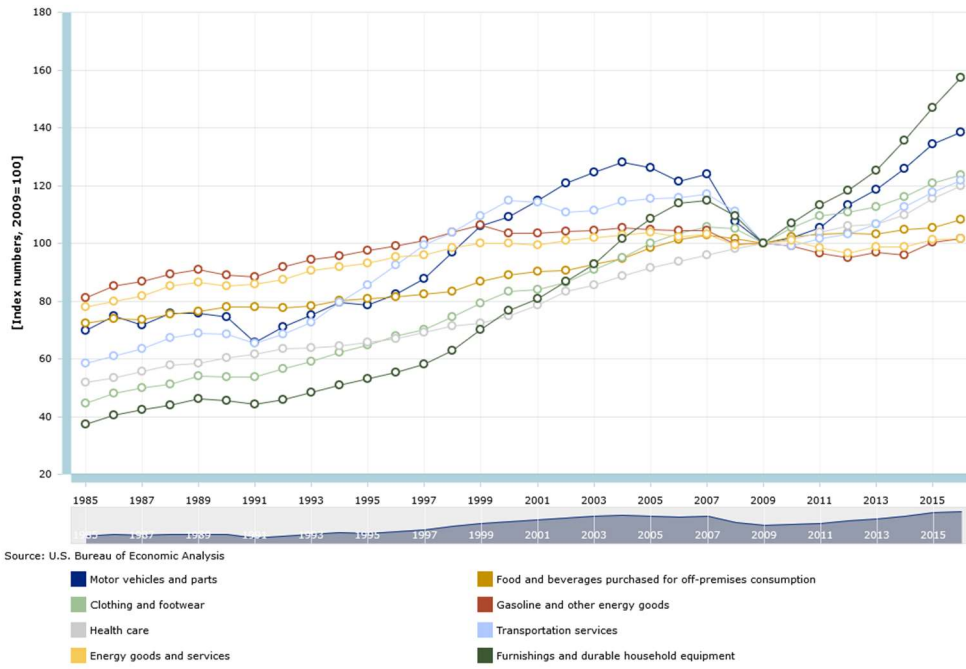
Price changes in consumer goods and services in the USA, 1997-2017

Price change in consumer goods and services in the USA, measured as the percentage change since 1997. Data is measured based on the reported consumer price index (CPI) for national average urban consumer prices.



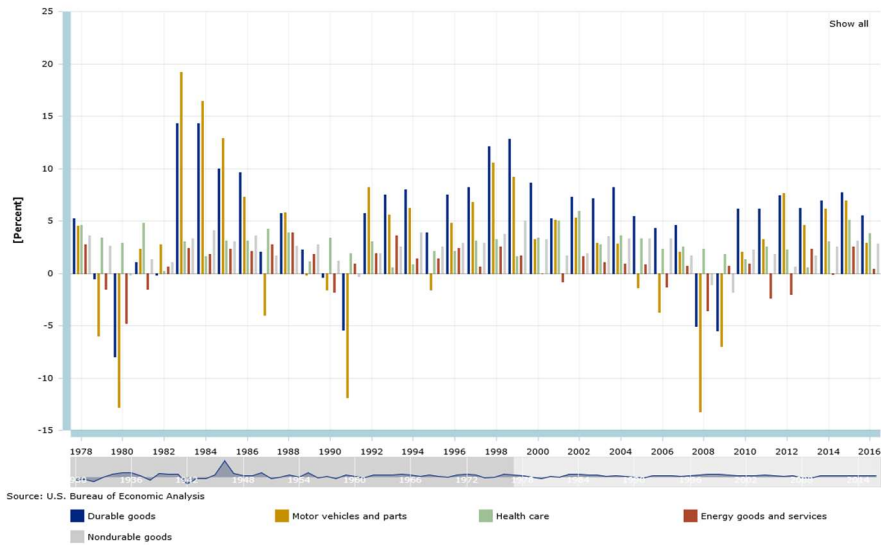
15. Real personal consumption expenditures

Table 2.3.3. Real Personal Consumption Expenditures by Major Type of Product, Quantity Indexes

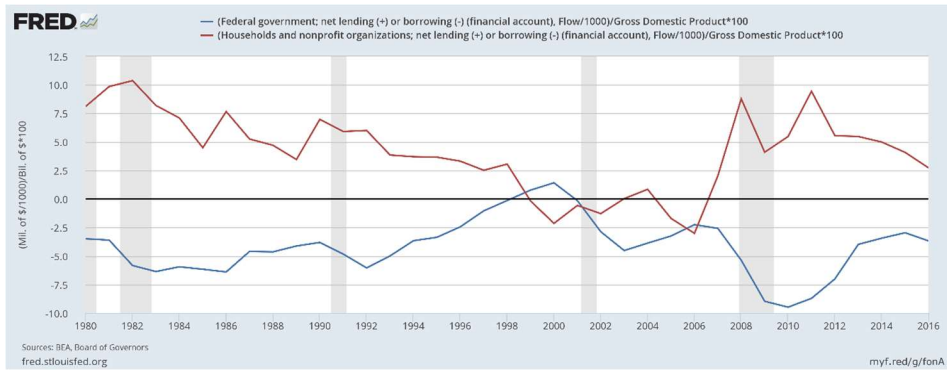


16. Percent change from preceding period

Table 2.3.1. Percent Change From Preceding Period in Real Personal Consumption Expenditures by Major Type of Product



17. Net Lending/net borrowing of households and government



18. Public debt and Household debt to GDP

