

The Economic Consequences of Declining Real Wages in the United States, 1970-
2010

by

Zachary Alexandre Saltis

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Abstract

The present thesis is a study of the economic consequences of declining real wages in the United States. It proposes that, when the real wages of the majority of the U.S. workforce declined in the 1970s, 1980s and the first half of the 1990s, household labour supply increased. Consequently, real family income in the bottom eighty percent of the income distribution rose. Wage-earning households were not only struggling to maintain their acquired standard of living as real wages were declining, but they were also, perhaps more importantly, *trying to raise their standard of living*. It was precisely when household labour supply hit a ceiling in the second half of the 1990s, that household debt exploded. Surging household debt from the late 1990s until 2007 – driven primarily by home mortgage debt – suggests that the culturally powerful “American Dream” motivated wage-earning households to *seek and expect* a continuously rising standard of living via home ownership even in the face of topped out work hours and historically low real wages.

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Introduction

The present thesis is a study of the economic consequences of declining real wages in the United States. It proposes that, when the real wages of the majority of the U.S. workforce declined in the 1970s, 1980s and the first half of the 1990s, household labour supply increased. Consequently, real family income in the bottom eighty percent of the income distribution rose. Wage-earning households were not only struggling to maintain their acquired standard of living as real wages were declining, but they were also, perhaps more importantly, *trying to raise their standard of living*. It was precisely when household labour supply hit a ceiling in the second half of the 1990s, that household debt exploded. Surging household debt from the late 1990s until 2007 – driven primarily by home mortgage debt – suggests that, in reaction to topped out work hours and historically low real wages, wage-earning households sought to continue raising their standard of living via home ownership.

Chapter One consists of a literature review. The contributions of various heterodox critics to the subject of real wages, household labour supply and household debt in the United States over the last four decades are assessed. Although rich in insight, the alternative literature does not stress the link between real wages, household labour supply and household debt as explicitly as does the present thesis.

Chapter Two is an empirical investigation of real wages in the United States between 1970 and 2010. The growth in income inequality during this period was based on the persistent gap between labour productivity growth and real wage growth. This can only be explained by the fact that the scales of class struggle were tipped in favour of capital.

Chapter Three is an empirical investigation of the effects of declining real wages on household labour supply. Real family income in the bottom eighty percent of the income distribution grew during a period of declining real wages thanks primarily to the contribution of married mothers' waged labour to family income. Yet the strategy of increasing household labour supply in order to raise living standards came to an end in the late 1990s.

Chapter Four is an empirical and theoretical investigation of the recent phenomenon of surging household debt in the United States. Given that household labour supply hit an upper bound by the late 1990s, household debt appeared to be a viable option for wage-earning households to continue raising their standard of living. Surging household debt since the late 1990s was driven by exploding home mortgage debt. Households sought to continue raising their standard of living via home ownership despite a labour supply "ceiling effect" and historically low real wages. This chapter ends by arguing that the culturally powerful "American Dream" motivated wage-earning households to *seek and expect* a continuously rising standard of living even in the face of topped out work hours and historically low real wages.

Chapter One

Literature Review

The present thesis will investigate: 1) the path of the real wages of production and nonsupervisory workers in the private nonfarm business sector, and of workers in the government sector; 2) household labour supply; and 3) household debt in the United States in the period 1970-2010. The connection between real wages, household labour supply and household debt has grabbed the attention of many critics, but few have made this connection explicitly. The purpose of the present literature review is to survey how the alternative literature (including the works of Marxian, post-Keynesian, Institutional, feminist and radical economists and critics) has interpreted household behaviour in the United States during the last four decades, and to highlight the strengths and shortcomings in the literature. This review will provide a sufficient summary of the cutting-edge theories and debates so that a thorough examination of the link between real wages, household labour supply and household debt may be properly conducted.

Real Wages and the Wage Share in the United States, 1970-2010

Since the 1970s, the U.S. macro-economy has undergone major transformations. Among these was the unrelenting growth in income inequality (Mishel, Bernstein and Shierholz 2009; Piketty and Saez 2003). The purpose of the following investigation is to survey and highlight the

disagreements in the literature surrounding the path of the real wage over the last forty years in the United States. As will be made clear below, the disagreements appear to be empirical ones. With respect to the wage share, there is no ambiguity. Yet, before conducting a proper investigation of the path of the real wage and of the wage share, the literature must be assessed.

The broad consensus in the alternative literature is that U.S. workers have, at best, not seen any real wage gains and, at worst, seen their real wages decline overall since the decade of the 1970s, with the exception of the broad-based yet temporary real wage gains made in the late 1990s. The path of the real wage may be summarized in the following: “there are at least two distinct “wage regimes”...one from 1973 to 1995 that consisted of stagnant average wage growth and real wage reductions for the vast majority, and one from 1995 to the present that consists of faster real wage growth in the late 1990s followed by slower growth and then declining wages for typical workers in the 2000s.” (Mishel, Bernstein and Shierholz 2009, 131) Expressed in constant 2007 dollars, the real average hourly earnings of production and nonsupervisory workers (production employees in mining, logging and manufacturing, construction employees in construction, and nonsupervisory employees in services industries) were flat from 1973 to 1979, in decline between 1979 and 1995, and again in decline between 2000 and 2007 (Mishel, Bernstein and Shierholz 2009, 132). (Note: average hourly earnings cited by Mishel, Bernstein and Shierholz were deflated using CPI-U-RS, that is, the Consumer Price Index research series for all urban consumers using current methods, 1978-1998 [Mishel, Bernstein and Shierholz 2009, 405]. According to the Bureau of Labor Statistics, “the CPI-U-RS attempts to estimate what the measured rate of inflation in the CPI for all urban consumers (CPI-U) would have been over the 1978-98 period had the methods now used been in effect since 1978.” [U.S Bureau of Labor

Statistics, March 26, 2010].) Referring to the period 1973-1989, Kotz (1994, 25-26) argues that “after 1973, real hourly earnings rose in some years and fell in others, with declines outweighing increases.” (Kotz 1994, 25) He adds that while real wages declined on the whole between 1973 and 1989, labour productivity continued to grow (Kotz 1994, 26). According to Ferguson (1996, 77-79), real wages declined from 1978 to 1986. Rima (1996, 11) argues that from 1984 to 1993, there was a steady decline in real weekly earnings in private non-agricultural industries. Aside from a small decline in average weekly hours, the decline in real weekly earnings was mostly due to “the failure of average hourly earnings to rise as rapidly as prices.” (Rima 1996, 11) In other words, from 1984 to 1993, real hourly wages declined. These real wages were calculated by Rima as “current dollar earnings divided by the consumer price index for urban wage earners and clerical workers (CPI-W) on a 1982 = 100 base.” (Rima 1996, 11) (Note: the CPI-W measures price changes faced by urban wage earners and clerical workers; this index is now supplemented by the CPI-U, that is, the index that measures price changes faced by all urban consumers [U.S. Bureau of Labor Statistics, April 6, 2005].) The evidence of declining real wages, especially in the 1980s, is even supported by new Keynesian economists such as Dickens et al. (2007, 208-9; 212). They write that “notably, there is some evidence that downward real rigidity in the United States in the 1970s virtually disappears in the 1980s...” (Dickens et al. 2007, 212)

Warren and Tyagi (2003, 50) argue that the average wage earner in the year 2000 barely made one per cent more (in constant 2000 dollars using CPI-U-RS) than his or her counterpart in 1973. Hence, by the end of the millennium, the real wage of the average wage earner had not grown for almost thirty years. According to Mohun (2006, 358), the real hourly wage rate (in constant

1996 dollars) of nonsupervisory labour (roughly 82 per cent of the employed U.S. labour force) showed no growth from 1980 to 2000. While the real hourly wage rate of nonsupervisory workers in both the productive and unproductive sectors failed to grow during this period, “supervisory” workers, especially in unproductive sectors, enjoyed much faster growth in their real hourly wage rate and more than doubled their share of income during this period (Mohun 2006, 354-355). According to Mishel, Bernstein and Shierholz, between 1979 and 2006, the annual growth rate of real average hourly earnings for production and nonsupervisory workers (consisting more than 80 per cent of the workforce) was very close to zero (Mishel, Bernstein and Shierholz 2009, 131-132). In sum, once the declines and modest gains over the relevant period are taken into account, the majority of workers saw no growth in their real hourly wages from the late 1970s to the mid-2000s.

In contrast, Robert Pollin (2011, 17) argues that average wages of nonsupervisory workers were seven percent lower in 2009 than they were in 1972 (in constant 2009 dollars), meaning that workers’ real wages had not stagnated but instead *declined* over the last four decades. Using data from the Bureau of Labor Statistics, Pollin (2003) shows how the average real hourly earnings of nonsupervisory workers in the private sector went from \$15.72 (in 2001 dollars) in 1973 to \$14.15 (also in 2001 dollars) in 2000 (Pollin 2003, 43-44). Also drawing data from the Bureau of Labor Statistics, Duménil and Lévy (2004) observe that “the weekly pay of a production worker in the 1990s dropped back to its level at the end of the 1950s...in 2002 it was 12 percent below its maximum level in 1972,” (Duménil and Lévy 2004, 47) despite an increase in labour costs during the late 1990s (mostly due to a rise in real wages). In other words, assuming a given workweek, the real weekly pay (in constant 1996 dollars) of 80 percent of the

workforce steadily declined for thirty years. Hence, the lack of agreement over whether real wages stagnated or declined over the entire period in question appears to be an issue of interpretation of data. This is why the question of the real wage path will need to be ironed out and rectified in the chapter on real wages in this thesis.

While there is controversy surrounding the trajectory of the real wage, there is no quarrelling about what happened to the wage share. Stagnant as well as declining real wages translate into falling income shares for households in the bottom four quintiles (i.e. a falling wage share) if real wage growth is outpaced by labour productivity growth.

Piketty and Saez (2003) provide evidence that since the early 1970s the income share of the top decile rose substantially in the United States. This masks the fact that most of those gains were captured by the top 1 percent and especially the top 0.1 percent of households, i.e. the “working rich.” Similarly, Barba and Pivetti (2009, 123) show that the share of after tax income of each quintile below the highest fell between 1980 and 2005 with the top decile witnessing the largest increase in the share of after tax income. According to Mishel, Bernstein and Shierholz (2009, 25-30), the unprecedented growth of income inequality between 1979 and 2006, driven mostly by the top 1 percent and 0.1 percent of households, meant that the *increases* in the share of income captured by the top 0.1 percent, for example, has now surpassed the total income that the bottom twenty percent of households earns in one year (2009, 27). Thus, there occurred a massive redistribution of income from the bottom ninety percent of households to the top ten

percent, and especially to the top 0.1 percent (Mishel, Bernstein and Shierholz 2009, 24, 27; Piketty and Saez 2003).

Although the evidence is clear that there was upward income redistribution, growing income inequality has a class dimension. Therefore, one must look at what happened to the wage share; in other words, income distribution must be analyzed within class terms rather than simply in terms of quintiles and deciles.

In his article “Back to Full Employment,” Robert Pollin (2011, 17) argues that, despite average labour productivity doubling between 1972 and 2009 in the United States, average wages of nonsupervisory workers were seven percent lower in 2009 than they were in 1972 (in constant 2009 dollars). Thus, real output per hour increased steadily over roughly forty years while real wages declined. This means that workers were capturing a progressively smaller share of income; a trend that has continued unabated, according to Aron-Dine and Shapiro (2007). For example, Aron-Dine and Shapiro state that “the share of national income going to wages and salaries in 2006 was at its *lowest level on record* with data going back to 1929. The share of national income captured by corporate profits, in contrast, was at its *highest level on record*.” (Aron-Dine and Shapiro 2007) Mishel, Bernstein and Shierholz state that between 1973 and 2007, productivity grew by eighty-three percent, “enough to generate large advances in living standards and wages if productivity gains were broadly shared.” (Mishel, Bernstein and Shierholz 2009, 160) These gains were obviously not broadly shared. Emphasized here is the enormous and persistent productivity-wage gap in recent decades. In fact, the annual growth rate

of labour productivity far outstripped the annual growth rate of median wages in every post-recession recovery period since the early 1980s (Mishel, Brenstein and Shierholz 2009, 125). Ferguson (1996) argues that “since the late 1970s and more notably since 1981, the rate of growth of real wages for production and non-supervisory (PNS) workers has lagged behind the growth rate of aggregate productivity, creating a wage-productivity “gap”.” (Ferguson 1996, 77) According to Beitel (2009, 78-79), labour productivity increased while real wages stagnated or declined for almost three decades. (Note: Beitel is not clear whether real wages either stagnated or declined.) Beitel states that “if real wages rise faster than output per hour, the profit-share falls. Conversely, if output per unit of labour-input exceeds the increase in real wages, the profit-share rises.” (Beitel 2009, 79) This means that when real wage growth exceeds labour productivity, the wage share rises, and *vice versa*. While most workers witnessed no growth and even experienced declines in their real wages, “corporate salaries” (Shaikh and Tonak 1994, 321), or what Mohun (2006) calls “supervisory” wages, have grown tremendously. Mohun (2006, 363-364) argues that the “capitalist class share”, that is, the sum of profits (aggregate non-labour income) and “supervisory” wages as a share of money value added followed a steep upward trend after 1979.

Abstracting from changes in labour productivity, Kalecki (1939) argued that “the relative share of gross capitalist income and salaries in the aggregate turnover is with great approximation equal to the average degree of monopoly.” (Kalecki 1939, 22) In other words, gross aggregate capitalist income (including entrepreneurial income, undistributed profits, dividends, managers’ salaries, other “overhead” costs, interest, rent and depreciation) as a share of total income is inversely related to the wage share (Kalecki 1939; 1965). The “average degree of monopoly”

should therefore be interpreted as Mohun's "capitalist class share," i.e. all non-labour income *including* "supervisory" wages as a share of total income. It is important to stress that Kalecki lumps managers' salaries (i.e. "corporate salaries" or "supervisory" wages) with all other non-labour income in his "average degree of monopoly." Kalecki's method, as well as Mohun's, appreciates the class character of "supervisory" or "managers'" salaries; because of supervisory labour's special relation to the interests of the capitalist class, its income is categorized under capitalist-class income. The evidence forwarded above suggests a growing "average degree of monopoly" at the expense of the wage share between 1970 and 2010. In other words, more than 80 percent of the workforce has seen its share of income decline while those at the top of the workforce have increased theirs. Perhaps ahead of his time, Sylos-Labini (1979) argued that "there has been a spurt in the salaries of top management, who fix the salary levels for themselves and other high-level managers, so that profits of corporations are in part institutionalized and transformed into salaries for top management." (Sylos-Labini 1979, 13) As "supervisory" wages rise alongside profits, the wage share of nonsupervisory labour must necessarily fall. To summarize, the literature has appreciated the decline in the wage share in the last four decades.

One gap in the literature worth mentioning is the question of what happened to the real wages of government workers, who form a significant segment of the wage-earning class in the United States. The literature seems to concentrate only on production and nonsupervisory workers in the private nonfarm business sector. Neglecting government workers in our analysis may not paint a comprehensive picture of the state of U.S. workers as a whole. Thus, an empirical assessment of the real wages of government workers will be in order.

Household Labour Supply in the United States, 1970-2010

When real wages are declining, how do households respond in terms of their labour supply? This is the motivation behind the investigation that follows. The post-Keynesian theory of labour supply will be offered as an alternative to the standard neo-classical model. In the post-Keynesian model, how strong is the relation between the real wage rate and the supply of labour? What are the non-wage factors influencing household labour supply decisions? More specifically, how are household labour supply decisions related to households' living standards? Do post-Keynesians differentiate individual labour supply from household labour supply? Do they define labour supply in terms of labour force participation rates or in terms of hours worked? Finally, what are the limitations of the post-Keynesian theory of labour supply?

In response to Yellen's (1980) contention that the post-Keynesian model did not contain a labour supply function, Lavoie (1992, 217-225) presents the significant contributions of post-Keynesians to this question in his *Foundations of Post-Keynesian Economic Analysis*. Lavoie shows that post-Keynesian theory does indeed possess a coherent analysis of labour supply even though he admits "the aggregate supply of labour may take just about any shape." (Lavoie 1992, 224) An overview of the post-Keynesian theory of labour supply, in contrast to the standard neo-classical model, will therefore be in order.

Post-Keynesian theory rejects the standard neo-classical assumption that labour supply is a positive function of the real wage rate. The neo-classical view assumes that *individuals* allocate their time between labour and leisure given the prevailing real wage rate and individuals' preferences. In general, "an increase in the wage rate tends to increase the supply of labor since it makes leisure more expensive..." (Varian 1992, 146) Conversely, a decrease in the wage rate tends to decrease labour supply. Given the concomitant fall in the price of leisure, the demand for leisure thus increases. This assumes that individuals are free to choose between employment and (voluntary) unemployment. It further assumes that individuals are indifferent between work and leisure if the real wage falls below their "reservation wage" (Spencer 2006, 459-460). In essence, the neo-classical theory considers work as a "bad," therefore individuals will only offer an extra "unit" of labour if the corresponding real wage rate is equal to the "disutility" of that extra "unit" of labour. This view of labour supply is summarized by Keynes as "*the utility of the wage when a given volume of labour is employed is equal to the marginal disutility of that amount of employment.*" (Keynes 2007, 5)

Post-Keynesians are not ready to accept that there exists a positive relationship between the real wage rate and labour supply. Nor do they believe that individuals, much less households, can freely choose between work and leisure. Appelbaum (1978) dispels the neo-classical view that either less labour will be offered or labour will be withdrawn altogether when the real wage rate falls. This is consistent with Keynes's (2007) indictment of the "second postulate" of classical doctrine in chapter two of *The General Theory*. There, Keynes argued that workers bargain for their money wages rather than their real wages; the determination of the real wage is beyond the control of workers. It follows from this that a decline in the real wage when the economy is

below full employment will not necessarily force workers to withdraw their labour. Along with Ginzberg (1976), Appelbaum (1978, 112) suggests that, because employment is the only available source of money income for most households to meet their needs, brute necessity and the lack of legitimate alternatives will compel households to continue supplying their labour in the face of declining real wages. Notice Appelbaum's emphasis on *household* rather than individual labour supply, since "labor-force participation is typically a *family* rather than an individual decision." (Rima 1996, 131) Appelbaum: "very few households can afford to supply less labor as real wages decline; and an excess supply of labor cannot be eliminated in this manner." (Appelbaum 1978, 112) Spencer (2006) supports this view by citing Joan Robinson: "it is commonly found that hours become longer and the number of workers in a family greater as real wage rates fall. In short the supply of labour from a given population is likely to have a negative, not positive elasticity, in response to changes in real wages..." (Joan Robinson [1937, 12] quoted in Spencer 2006, 470) Robinson highlights the fact that, beside the extra hours that may be worked by the primary income earner, other household members will need to enter the labour market to shore up any drop in real household income when real wages fall. *Household* labour supply therefore takes centre stage in Robinson's and Appelbaum's respective analyses. Both Robinson and Appelbaum would agree that there is an important relation between the real wage rate and the supply of labour like the neo-classical view, but this relation is negative rather than positive. Lavoie notes, though, that certain neo-classical labour economists such as Dunn (1979) and Pencavel (1986) are aware that men, for example, will tend to increase their hours of work when their real wage rates decrease. This suggests that household economic needs are important in their analysis of labour supply. Hence, a downward-sloping labour supply curve is possible within the neo-classical paradigm (Lavoie 1992, 220-221).

The fact that households must fulfill certain basic and customary needs informs the post-Keynesian theory of labour supply. In reality, there is no such thing as a labour market *per se*. Seccareccia (1991) states that “the concept of ‘a labour market’ in which the supposed fundamental relations of supply and demand interact to determine the ‘price of labour’ is totally alien to both Keynes’s and post-Keynesian thinking on the matter.” (Seccareccia 1991, 43-44) In other words, there is no market for labour in the sense that the wage rate (i.e. the price of labour-power) fluctuates to clear the market. Because “labour power cannot be separated from the labourer,” (Seccareccia 1991, 44) household labour supply decisions will naturally depend on the aspirations, expectations and needs (i.e. the overall material conditions) of households. Lavoie reinforces this message stating that post-Keynesian analysis of labour supply sets aside price-effect considerations and focuses instead on “the much neglected income effects” (Lavoie 1992, 221) of changing real wage rates.

As was mentioned above, the post-Keynesian theory of labour supply emphasizes the inseparability of household decisions to offer labour services and household consumption needs (Lavoie 1992, chapters 2 and 5). Households borrow to acquire goods and services, therefore their obligations to meet payments on their loans will have a major influence on their labour supply decisions. Lavoie also argues that households’ labour supply decisions are governed by households’ desire to maintain an acquired standard of living to which they are accustomed, and which is biased by “comparison” households. In sum, “households are thus compelled for normative and cash flow reasons to maintain customary income levels.” (Lavoie 1992, 222)

Rima (1984) calls for a re-specification of the labour supply curve that appreciates these non-wage factors. Rima's labour supply theory is better understood as a theory of household "demand for real income." (Rima 1984, 543) According to Rima, households' supply of labour is primarily influenced by: 1) relative wages; 2) households' "customary real consumption standard", i.e. their customary needs and tastes; 3) the real value of households' nominal assets, or more specifically their net asset position; and finally 4) the nominal price level of wage goods (Rima 1984, 543-544). Rima concludes that money wage cuts or stagnant money wage growth will invariably lead to an increase in household labour supply because, as Kalecki (1939) pointed out in "Money and Real Wages," both a cut in money wages and stagnant money wage growth translate into a cut in real wages under conditions of imperfect competition (Kalecki 1939, 80-86). According to Rima's model, labour supply consequently increases so that households may bring in the desired level of real income to meet their consumption and saving needs.

The view that households' labour supply will be determined by their targeted level of real income is supported by Mongiovi (1991), who suggests that "if, for example, workers aim to maintain a given standard of living, the labour supply curve will take the form of a rectangular hyperbola; the working class will respond to a wage cut by offering just that amount of additional labour which would be required to bring their real incomes back to the desired level." (Mongiovi 1991, 39) Lavoie, following Mongiovi, attempts to formalize the post-Keynesian theory of aggregate labour supply along these lines. Assuming a given flow of non-wage income and a "perceived" standard of living, the aggregate labour supply curve will be a rectangular hyperbola (Lavoie 1992, 222). Lavoie's depiction of the aggregate labour supply curve, also known as the "perceived" standard of living curve, demonstrates the negative relationship

between the real wage rate on the ordinate and the amount of hours worked on the abscissa. For example, a change in the real wage rate, *ceteris paribus*, will be a movement *along* the curve. A change in the “perceived” standard of living, *ceteris paribus*, will *shift* the curve (Lavoie 1992, 222-223). Therefore, a given amount of hours worked corresponding to a given real wage rate will depend on the “perceived” standard of living of a given household.

But Lavoie’s and Mongiovi’s version of the downward-sloping labour supply curve as a rectangular hyperbola has its limitations. First, can workers increase their labour supply at the margin so easily? In the real world, this may not be an option; either the worker accepts a job offer with the amount of hours fixed by his or her employer, or he or she turns down the job offer and does not work. Second, it is not clear whether Lavoie’s and Mongiovi’s labour supply curve is an aggregate labour supply curve for individual workers or for households. Third, in Mongiovi’s case, is the “amount of additional labour” an absolute increase in hours worked by the primary household wage-earner, or is it additional labour from other members of the working-class household entering the labour market? Finally, if labour supply can respond without friction at the margin to maintain a targeted level of real income, why then would working-class households, or individuals for that matter, ever go into debt? What if labour supply responses to changes in the real wage rate are, for whatever reason, not sufficient to maintain the acquired standard of living? These questions remain unanswered in the formalized post-Keynesian theory of labour supply according to Lavoie and Mongiovi.

Most post-Keynesians will agree that households will want to increase their supply of labour in the face of falling real wages; either household members already working will be forced to work more hours in paid employment, or other members of the household will need to find work to bring home a targeted level of real income. Since at least the 1970s, U.S. households have relied on more than one income earner (i.e. married women with children) to maintain their acquired standard of living, given that the real hourly earnings of men – the traditional primary breadwinners – have declined for at least three decades (Warren 2006; Warren and Tyagi 2003). This observation is supported by feminist economists Humphries and Rubery (1984), who argue that “when real wages are under pressure, families can only respond by increasing participation rates.” (Humphries and Rubery 1984, 342) Focusing on the relation between changes in the economy and the supply side of the labour market in the United States, Humphries and Rubery state that “from the mid sixties onwards, the continued increase in female participation took place in the face of, indeed in response to, stagnating real wages.” (Humphries and Rubery 1984, 342) If (men’s) real wages are declining and households must bring home a targeted level of real income just to maintain their customary standard of living, then employed family members must either 1) work longer hours at their current jobs (which may not be an option given institutional barriers) (Dunn 1979); 2) pick up additional jobs (full-time or part-time); and/or 3) rely on other members of the household to find work in order to shore up the drop in real income. Lavoie points out that women’s supply of labour increases in recessionary times while it is argued that women’s supply of labour is in general upward-sloping (Lavoie 1992, 224). Neo-classical labour economists like Blau and Kahn (2007) argue that, starting in the late 1970s and early 1980s, sharp increases in married women’s labour force participation occurred alongside equally sharp increases in married women’s relative wages until 1990, when both variables continued to

increase yet at a slower rate (Blau and Kahn 2007, 393-396). In other words, married women's labour supply responds positively to a decline in men's real earnings, a conclusion generally accepted by post-Keynesian, Marxian and feminist economists alike.

The link between female labour force participation, real wages and household living standards is also grasped by liberal critic Elizabeth Warren (2006). Household labour supply decisions are closely connected to households' real consumption standard. According to Warren, since the 1970s, "the typical middle-class household in the United States is no longer a one-earner family, with one parent in the workforce and one at home full-time." (Warren 2006, 28) The economic causes of such a shift is summarized in the following: "rocked by rising prices for essentials as men's wages remained flat, both Dad *and* Mom have entered the workforce – a strategy that has left them working harder just to try to break even." (Warren 2006, 28) Furthermore, women may even hold more than one job following their entry into the labour market. As Rima (1996) remarks, "the erosion of the purchasing power of money wages as a result of rising prices between 1970 and 1990 appears to have increased the attractiveness of multiple-job holding to offset the impact of rising prices on real family income." (Rima 1996, 143) But, Blau and Kahn's observation of a slowdown in female labour force participation in the 1990s suggests that increases in household labour supply may have reached a saturation point in the United States. This point is supported by Mishel, Bernstein and Shierholz (2009, 91-94), who state that family work hours, which trended upwardly during the 1970s and 1980s thanks to the increasing supply of labour of married women during the same period, "flattened well before the 2000s downturn." (Mishel, Bernstein and Shierholz 2009, 94) They argue that "both married men and women appear to be experiencing some extent of a ceiling effect, where their work hours in the paid job

market are topped out given other responsibilities in their lives.” (Mishel, Bernstein and Shierholz 2009, 94) They conclude that “this flattening in hours suggests an important structural limitation to future family income growth.” (Mishel, Bernstein and Shierholz 2009, 94) Thus, if household labour supply cannot increase further while real wages continue to fall, then what is there available for households to maintain their acquired standard of living? As will be discussed in the next section, household debt may have been the answer in the United States.

In summary, the post-Keynesian theory of aggregate labour supply recognizes the inverse relation between the real wage rate and household labour supply. But this analysis is also consistent with the Marxian framework. In fact, the negative relationship between the real wage rate and household labour supply was long ago pointed out by Friedrich Engels in his *The Condition of the Working Class in England*. There, he remarked that “when every member of the family works, the individual worker can get on with proportionately less...” (Friedrich Engels quoted in Lapides 1998, 128) The working-class household may bring home the same level of wage income than before, but only because more family members are working for relatively lower wages. Marx echoed Engels’s observation when he wrote: “to purchase the labour-power of a family of four workers may perhaps cost more than it formerly did to purchase the labour-power of the head of the family, but, in return, four days’ labour takes the place of one day’s, and the price falls in proportion to the excess of the surplus labour of four over the surplus labour of one. In order that the family may live, four people must now provide not only labour for the capitalist, but also surplus labour.” (Marx 1976, 518) Here, Marx suggests that working-class household labour supply increases when the real wage falls mainly because households try to maintain a targeted level of real income associated with a customary standard of living. As

Kotz (1994) argued, “the value of labor power rests upon a family living standard.” (Kotz 1994, 28) But, if household labour supply cannot be further increased while real wages continue to fall, then the only legitimate option remaining for households is to go into debt if they want to maintain their acquired consumption standard. Although Marx and Engels offer no insight in this particular area, the recent rise in working-class household debt certainly is compatible with the Marxian framework.

Kotz (1994) provides a solid basis for household labour supply behaviour within the Marxian framework. He connects the emerging phenomenon of the dual wage-earning family with declining real wages between the years 1973 and 1989. The unprecedented influx of married women with children into the labour market reflected a major transformation in family life and overall income distribution. Kotz claims that capitalism has benefitted from the dual wage-earning family arrangement since the early 1970s. In response to declining real wages, married women began entering the workforce so that typical working-class families could maintain a given standard of living to which they had grown accustomed thanks to the continual rise in living standards in the post-WWII era. As the real wage declines, the transformation from the single wage-earning family to the dual wage-earning family “turns into a necessity for maintaining the normal living standard, as wages are driven down in response to the family transformation. And it explains overwork as families respond to falling wages by trying to maintain their recent higher living standard in the only way they can.” (Kotz 1994, 48) In other words, like Marx and Engels, Kotz sees a negative relation between real wages and household labour supply within a context of a “normal” living standard. The standard of living is obviously not fixed due to the presence of technical change (Kotz 1994, 30). But the standard of living,

although dynamic over time and fashioned by the past, is at any given time considered “normal” or “customary.” Working-class households therefore behave in accordance to this standard. Kotz’s article, though, focuses strictly on household labour supply responses and does not consider household debt as another potential device used by households to maintain their living standards.

Thus, although the downward-sloping labour supply curve is a post-Keynesian construction, it is perfectly compatible with Marxian economic theory, as is clear from the discussion above. Therefore, changes in household labour supply between 1970 and 2010 will be analyzed within this framework in the third chapter of this thesis. Yet, the theoretical implications of this framework will be subject to scrutiny.

Household Debt in the United States, 1970-2010

As was discussed earlier, households were presumed to respond to declining real wages by increasing their labour supply in order to maintain their acquired standard of living. Once the option of increasing household labour supply was more or less exhausted, debt appeared to be a legitimate alternative. Besides a notable few (for example, Mishel, Bernstein and Shierholz 2009; Schor 1998; Warren 2006; Warren and Tyagi 2003), the literature has not made this connection explicitly enough. Pressman and Scott (2009, 127-128) argue that the literature offering explanations of rising household debt over recent years may be divided into three

camps: 1) debt was a means to maintain a “decent” standard of living to which American households had grown accustomed despite stagnant or declining real wages and household incomes; 2) households went into debt to increase their real consumption so that they may imitate their wealthier neighbours in light of growing income and wealth inequality; and 3) households went into debt simply because the supply of credit had grown substantially over the last 25 to 30 years. The objective of this section is to survey and compare these three general explanations of surging household debt in the current alternative literature.

In an essay entitled “The Household Debt Bubble” in their book *The Great Financial Crisis*, Marxian economists Foster and Magdoff (2009, 27-38) observe that, though real wages have been sluggish for decades for the majority of U.S. households, “overall consumption has continued to climb.” (Foster and Magdoff 2009, 28) Consequently, an alarmingly high percentage of households in the bottom three quintiles – what Foster and Magdoff designate as working-class households – experienced financial distress between 1995 and 2004; a situation in which debt service payments exceeded forty percent of family income (see also Mishel, Bernstein and Shierholz 2009, 289). Personal bankruptcy during this period was also pervasive; in fact, the personal bankruptcy rate quadrupled between 1980 and 2004 in the U.S. (Boushey and Weller 2008, 1; Mishel, Bernstein and Shierholz 2009, 290). Ausubel (1997) comments that the “data reflect an historical increase in the rate of credit card defaults over the past twenty-five years, as well as a rise in personal bankruptcies in the 1990s which is astonishingly highly correlated with the rise in credit card defaults.” (Ausubel 1997, 250) Ausubel adds that incidences of credit card default and bankruptcy tend to rise with the debt-to-income ratio of households (Ausubel 1997, 250). Foster and Magdoff highlight the negative correlation between

financial distress and household income (Foster and Magdoff 2009, 31-32); in other words, soaring “family debt burdens” were heavily concentrated in lower quintiles even though the growth in overall debt in the U.S. between 1989 and 2004 was dominated by the third and fourth quintiles (Mishel, Bernstein and Shierholz 2009, 286). Although access to credit offers financial flexibility to households, especially lower-income households, it becomes a serious problem “when required debt payments begin to crowd out other economic obligations or opportunities.” (Mishel, Bernstein and Shierholz 2009, 284) Furthermore, Foster and Magdoff found that home-secured debt, constituting the biggest portion of household debt, steadily rose since the late 1990s and exploded from 2001 to 2005 due to the housing boom (Foster and Magdoff 2009, 32-33). Finally, instalment borrowing also increased in the same period, a fact supported by Barba and Pivetti (2009).

But instead of just documenting rising working-class household debt, Foster and Magdoff try to explain what was behind this phenomenon. They argue that the explosion in working-class household debt occurring during a time of *falling* working-class household real income is evidence that working-class households were desperately trying to make ends meet and preserve their standard of living. Referring to the dramatic increases in home equity loans since the early 2000s, “the fact that this is happening at a time of growing inequality of income and wealth and stagnant or declining real wages and real income for most people leaves little doubt that it is driven to a considerable extent by need as families try to maintain their living standards.” (Foster and Magdoff 2009, 35) In sum, Foster and Magdoff conclude that it was working-class households’ desire to maintain their *absolute* standard of living in the face of growing income inequality and falling real household income that was behind rising working-class household

debt in the United States since the 1980s. Keynes (2007) forwarded a similar view by stating that “a decline in income...if it goes far, may even cause consumption to exceed income...” (Keynes 2007, 98) seeing as households’ “habitual standard of life usually has the first claim” (Keynes 2007, 96) on household income. Rising household debt makes sense if households were trying to maintain their standard of living in the face of falling real income. But Foster and Magdoff also say elsewhere that real wages have generally stagnated. This contradicts their contention that working-class real household income has fallen. How are stagnant real wages consistent with falling real incomes? Furthermore, why would households go into debt to maintain their *absolute* standard of living if their real wages have stagnated? Would not their absolute standard of living be preserved by constant real wages? Mishel, Bernstein and Shierholz (2009) state that “wages and income have largely stagnated, and without being able to count on these means for maintaining living standards, many families have taken advantage of often extremely low interest rates to finance consumption through debt.” (Mishel, Bernstein and Shierholz 2009, 286) Were both real wages *and* household income stagnant? Again, why would households go into debt if their constant (i.e. stagnant) real wages and incomes could in principle preserve their absolute standard of living?

Whereas Foster and Magdoff and Mishel, Bernstein and Shierholz seem to argue that working-class households were trying to maintain their absolute living standards, Barba and Pivetti (2009) forward the view – derived largely from Duesenberry (1949) – that “households struggle to preserve not only their absolute but also their relative standards of consumption...” (Barba and Pivetti 2009, 122) The substitution of loans for wages during the last thirty years therefore allowed low and middle-income households to increase their real consumption. Barba and

Pivetti argue that, aside from current income, low and middle-income household consumption is largely influenced by: 1) past income levels, in other words, past living standards will bias current consumption; 2) new goods and services put on the market; and 3) the desire for a *higher* standard of living when wealthier households experience increases in income and wealth (Barba and Pivetti 2009, 125; Duesenberry 1949; Veblen 1953). One finds a similar view in the early works of Marx (1962, 93-98). Marx: “although the enjoyments of the worker have risen, the social satisfaction that they give has fallen in comparison with the increased enjoyments of the capitalist, which are inaccessible to the worker, in comparison with the state of development of society in general. Our desires and pleasures spring from society; we measure them, therefore, by society and not by the objects which serve for their satisfaction.” (Marx 1962, 94) Zezza (2008) adds that “if households in the lower quintiles plan their consumption relative to the standard of living in upper quintiles, when the relative wages of the quintiles shift in favor of the top quintile – as happened in the United States in the recent past – imitation effects should put additional pressure on the middle class to increase consumption out of debt.” (Zeza 2008, 382) Cynamon and Fazzari (2008) argue that social norms shape household preferences and consumption habits. Household “preferences are not given exogenously, in the conventional sense, but rather created through time as the household is continually buffeted by events and social interaction. Households learn consumption patterns from their social reference groups.” (Cynamon and Fazzari 2008, 5) Thus, like Zezza and Cynamon and Fazzari, Barba and Pivetti’s analysis suggests that rising low and middle-income household debt over recent years was not so much driven by the desire of low and middle-income households to maintain a static, absolute standard of living, but more precisely, by these households’ desire to increase their real consumption in order to maintain their *relative* standard of living *vis-à-vis* the ruling classes.

As was discussed above, Barba and Pivetti interpret the phenomenon of rising household debt as the “effort by low and middle-income households to maintain, as long as possible, their relative standards of consumption in the face of persistent changes in income distribution in favour of households with higher incomes,” (Barba and Pivetti 2009, 121-122) in contrast to the story told by Foster and Magdoff and Mishel, Bernstein and Shierholz. Barba and Pivetti conclude that household consumption tends to be fairly “inelastic with respect to reductions in household incomes.” (Barba and Pivetti 2009, 122) It follows from this that households’ consumption habits must be dictated by their “customary necessities.” In the spirit of the classical economists, Barba and Pivetti emphasize the importance of households’ “acquired standard of living” or “customary necessities.” (Barba and Pivetti 2009, 124-125) Classical economists such as Ricardo (1996) and Marx (1974) suggested that the “customary necessities” of workers determined the path of the real wage. For example, Ricardo argued that “the natural price of labour” (i.e. the long-run real wage) “essentially depends on the habits and customs of the people.” (Ricardo 1996, 67-68) The “natural price of labour” is seen as dynamic, for it is shaped by historical and cultural factors. Similarly, Marx considered the value of labour-power (akin to Ricardo’s “natural price of labour”) to be “determined by a *traditional standard of life*.” (Marx 1974, 50) And this standard “is not mere physical life, but it is the satisfaction of certain wants springing from the social conditions in which people are placed and reared up.” (Marx 1974, 50) Marx’s value of labour-power is also seen as dynamic, for it is shaped by historical and moral elements. But, since the early 1980s, the link between household consumption and real wages has broken down in the United States. Barba and Pivetti argue that households’ “acquired standards of living tend to determine their consumption levels,” (Barba and Pivetti 2009, 125)

despite falling income shares for the bottom eighty percent of households. Therefore, Barba and Pivetti are suggesting that the acquired standard of living exhibits some degree of hysteresis. Low and middle-income households increased their real consumption in the face of stagnant real wages and falling income shares due to the power of acquired living standards. For, in the post-WWII era, real wages and living standards rose consistently and households naturally expected this to continue. But, real wage growth unfortunately came to an abrupt end. Barba and Pivetti do not believe the current path of household consumption will be sustainable in the long run. As Picchio (1992) points out, “the contradictions inherent in the capitalist relation between production and reproduction emerge with a particular clarity in certain cases...not all those who work for a wage receive a wage sufficient to satisfy their historically given habits and tastes.” (Picchio 1992, 119) Eventually, the historically determined living standard of the majority of households will be squeezed; in the long run, the path of real consumption will need to follow the path of real wages (Barba and Pivetti 2009, 125).

Coming from the institutionalist-behavioural tradition of Veblen, Duesenberry and Galbraith, Schor (1998) argues that along with growing income and wealth inequality came the “new consumerism” beginning in the 1980s, which intensified “competitive acquisition” and led many U.S. “middle-class” families into an unending cycle of “work-and-spend” (Schor 1998, 3-24). According to Schor, growing income inequality within a context of hyper-consumerism led to increased consumer borrowing and credit card spending, as well as deteriorated family finances (Schor 1998, 19). As a result, American families were working more, saving less, and “overspending” (Schor 1998, 20). Although Schor’s study focuses mainly on “middle-class” consumers (middle-income households) and “upper-middle-class” consumers (households in the

top quintile excluding the richest few percent), she nevertheless argues that low-income families were also trapped in the same “work-and-spend” spinning-wheel, though not to the same degree. One significant social effect of this “new consumerism” was a general feeling of relative impoverishment among families in the bottom four-fifths of the income distribution. Echoing Marx (1962, 94), Schor argues that “consumer satisfaction, and dissatisfaction, depend less on what a person has in an absolute sense than on socially formed aspirations and expectations. Indeed, the very term “standard of living” suggests the point: the standard is a social norm.” (Schor 1998, 9) While the richest households saw their share of income and wealth rise at the expense of the bottom eighty percent of households, Schor claims that most American households’ concept of “need” had altered dramatically since the 1980s. Schor recognizes, through Adam Smith, that the notion of need is socially and historically determined; what were former “luxuries” become “necessities.” But, according to Schor, the “reference group” with which households lower in the income distribution compared their standard of living was much richer and more conspicuous in its spending. Hence, these “highly intensified spending pressures” (Schor 1998, 7) caused American households to perversely “over-spend” on so-called “necessities.” Notwithstanding Adam Smith’s observations, Schor argues that U.S. households were spending more on things they did not really need and hence indebted themselves needlessly.

The position taken by Schor is not without controversy. Warren (2006) and Warren and Tyagi (2003) suggest that, due to rising costs for basic goods and services since the 1970s, “middle-class” households were working harder and spending close to their entire paycheques for *basic* and *fixed* expenses such as health insurance, transportation, child care, housing, utilities,

education, etc. In other words, households were spending more because they had to make ends meet! More to the point, households needed to spend more in order to maintain their normal standard of living simply because their normal standard of living was costing more and needed continuous upgrading. Despite households' struggle to make ends meet, many end up filing for bankruptcy, usually due to severe misfortune and growing economic risk such as unexpected job loss, medical emergencies and divorce (Mishel, Bernstein and Shierholz 2009, 292; Warren and Tyagi 2003, 81). This story evidently contradicts the "over-consumption myth" (Warren and Tyagi 2003, 15-54) forwarded primarily by Schor. Contrary to what Schor may suggest, Warren (2006, 30) and Warren and Tyagi (2003, 49-54) argue that "middle-class" households enjoy less discretionary income as a share of family income in recent times than their counterparts in the early 1970s, given the soaring "fixed costs" associated with households' normal consumption bundles. Warren and Tyagi summarize as follows: "today, after an average two-income family makes its house payments, car payments, insurance payments, and child care payments, they have *less* money left over, *even though they have a second, full-time earner in the workplace.*" (Warren and Tyagi 2003, 51-52) Warren and Tyagi's analysis is a forceful repudiation of what Marron (2009) calls the "myth of lost economic virtue" (Marron 2009, 4) commonly found in works like Schor's. Therefore, Warren's and Warren and Tyagi's analysis poses a challenge which merits attention. Rising household debt may not have been a symptom of pecuniary emulation, but rather a symptom of trying to make ends meet.

Warren and Tyagi (2003, 129-132) believe that profitable "unregulated lending" intertwined with the strong demand for credit and loans from households trying to maintain their standard of living made the debt explosion possible. This dialectal relationship between the supply of and

demand for credit in the era of “financialised capitalism” is appreciated by Lapavitsas (2009) and Dos Santos (2009). According to Lapavitsas and Dos Santos, banks were boosting their profits by providing various forms of credit to individual wage-earners since the 1980s, especially subprime mortgages more recently. Wage-earners were forced to rely on these financial services while their real wages were stagnating and the public provision of goods and services were being cut. As Fine (2010) remarks, Lapavitsas and Dos Santos have identified one of the many aspects of the “increasing penetration of interest-bearing capital across economic and social reproduction” (Fine 2010, 97) in the last few decades. Lapavitsas’s and Dos Santos’s respective analyses show that the subjugation of households under crushing debt relations was not simply a result of supplier-induced demand for financial services. Wage-earners were indeed demanding credit. The dialectical interplay between these demand and supply forces was transformed into a generalized phenomenon of household indebtedness. In contrast, Dymski (2009) paints a sinister picture of supplier-induced demand in the deregulated world of banking, specifically with respect to subprime mortgages. His analysis focuses on the aggressive inclusion since the 1990s of racialized minorities into relations of “financial expropriation” with subprime mortgages. Indeed, the proliferation of subprime mortgages throughout the first decade of the twenty-first century led Mishel, Bernstein and Shierholz to believe that “a large chunk of this increase was due to an increase in predatory lending practices that was left largely unchecked by federal and state regulatory authorities during the booming housing market.” (Mishel, Bernstein and Shierholz 2009, 293) Therefore, was the phenomenon of rising household indebtedness simply caused by the supply side, by the demand side, or by both? Financial liberalization indeed dissolved many of the liquidity constraints faced by lower-income households, who always demanded credit. One may argue that the pent-up demand for credit mixed with the pursuit of

profits by lending agencies was the cause of rising household debt in recent years. Given the lack of consensus on the issue, this question will be addressed in the fourth chapter of this thesis.

It is evident that much has been written on real wages, household labour supply and household debt, and how these variables are related to household living standards in the United States in recent decades. Many of the insightful analyses presented above have improved our understanding of the changes households have endured in the United States over the last four decades. Yet the literature is still very disjointed and at times inconsistent. Therefore, the purpose of the present thesis is to clarify the issues and attempt to bring all the elements already found in the alternative literature together in a more coherent and consistent manner.

Chapter Two

Real Wages in the United States, 1970-2010

In 2010, the average real hourly wage rate of production and nonsupervisory (PNS) workers in the private nonfarm business sector was more than six percent lower than it was in 1972-73 despite the fact that these same workers – who make up the majority of the employed U.S. workforce – had become more productive during this period. Even though PNS workers in the private nonfarm business sector enjoyed a pro-cyclical rise in their real hourly wage rate in the latter half of the 1990s, the precipitous declines from the early 1970s to the mid-1990s, as well as the stagnation for half of the first decade of the 2000s, greatly outweighed these temporary gains. Unsurprisingly, labour productivity growth consistently outpaced real wage growth for four decades. As a result, PNS workers were capturing a progressively smaller share of private nonfarm business sector income. In contrast, government workers saw overall real wage gains, although stagnation was generally the norm during this period. This suggests that government workers had relatively greater bargaining strength than their fellow workers in the private nonfarm business sector. In order to better interpret the empirical results below, three propositions in addition to a few algebraic formulations are forwarded.

First Proposition. *The hourly money wage rate of workers is contingent on class struggle.* Since workers and employers struggle over the rate of money wages (Keynes 2007, 7-15), the latter

depends “largely on the respective bargaining power of business and labor...” (Appelbaum 1978, 105) On the one hand, employers attempt to either cut money wages, or halt the growth of money wages altogether, or slow down the rate of growth of money wages (Duménil and Lévy 2004, 44-45). On the other hand, workers seek to secure a money wage that, at the very least, allows them and their families to subsist and enjoy a socially and historically determined consumption standard. In general, workers resist money wage cuts (Keynes 2007, 7-15) and attempt to raise their money wages. Hence, the price of labour-power (the hourly money wage rate) is contingent on class struggle.

Second Proposition. *Workers do not set their real hourly wage rate.* Although workers perhaps have a target real wage in mind “arising from notions of fair pay and a ‘just’ wage,” (Sawyer 1985, 165) they do not bargain for their real wages (Keynes 2007, 7-15). After workers “exchange their labour-power against money,” they “exchange money for means of consumption.” (Weeks 1981, 70) The purchasing power of the money wage will depend on the price level of wage goods. The latter is in turn determined by the magnitude of firms’ average markup (Kalecki 1939; 1965; Sylos-Labini 1979, 6; Weintraub 1978-79, 62). The extent to which capitalists *as a class* can mark up prices will depend on their relative bargaining strength in the class struggle. Nuti (1971) argues that “the real wage-rate cannot be taken as exogenously determined...Nor can it be determined *directly* by class struggle...because after Keynes we have to recognize that wage bargaining determines *money* wages, while the real wage rate is determined by the behavior of the price-level.” (Nuti 1971, 32) In response to Nuti’s contention, Dobb (1973) suggests that “some might feel inclined to maintain that...real wages are determined as the residual rather than profits.” (Dobb 1973, 267) In other words, if capitalists

enjoy relatively greater bargaining power in the field of class struggle, then they can increase their share of income by depressing real wages via a higher markup. Real wages are therefore determined *ex post* as a “residual.”

Third Proposition. *Real wage growth and labour productivity growth do not necessarily converge.* The first and second propositions above imply that employers have greater ability to reduce the real hourly wage rate while raising real output per hour *if they possess relatively greater bargaining strength in the class struggle.* We therefore reject any *a priori* assumption that real wages and labour productivity tend to converge.

We are above all interested in calculating the real hourly wage rate and the wage share of PNS workers in the United States between 1970 and 2010. Therefore, we need a simplified model that will represent the real hourly wage rate and the wage share symbolically. We chose a conventional wage-cost markup model based on Weintraub (1978-79) and Sylos-Labini (1979). For the private nonfarm business sector, let

$$P = k.W/A,$$

where

P = “Consumer Price Index – All Urban Consumers” (what the Bureau of Labor Statistics designates as “CPI-U”).

W = average hourly money wage rate of PNS workers in the private nonfarm business sector.

$A = (Q/h)$ = labour productivity (real output per hour) in the private nonfarm business sector.

k = average markup; it is the reciprocal of the wage share, ω , of PNS workers (the wages of PNS workers as a share of total private nonfarm business sector income). We will refer to k as the “capitalist class share” (Mohun 2006, 363) in the private nonfarm business sector.

The “Consumer Price Index – All Urban Consumers” (CPI-U) is the most comprehensive price index. It “represents about 87 percent of the total U.S. population and is based on the expenditures of all families living in urban areas.” (U.S. Bureau of Labor Statistics, October 16, 2001) Therefore, the major expenditure categories that make up CPI-U are presumed to adequately reflect the composition of the average consumption bundle of a typical urban wage-earning household in the United States. These major expenditure categories include food and beverages, housing, apparel, transportation, medical care, recreation, education and communication, and “other goods and services” including haircuts, tobacco products, etc. (U.S. Bureau of Labor Statistics, June 28, 2010). The CPI-U series used in this chapter is the U.S. city average (all items) with 1982-1984=100 base (annual averages) (U.S. Bureau of Labor Statistics, April 15, 2011). (For a detailed comparison of the hourly money wage rate deflated by CPI-U, and the hourly money wage rate deflated by both the “Consumer Price Index – Urban Wage Earners and Clerical Workers” (CPI-W) and the “Consumer Price Index Research Series Using Current Methods” (CPI-U-RS), consider the Appendix for the present chapter below.)

Production and nonsupervisory workers in the private nonfarm business sector include employees in service-providing industries not hired to “direct, supervise, or plan the work of

others,” and production employees “in mining and logging and in manufacturing, and construction employees in construction,” excluding employees “not directly involved in production.” (U.S. Bureau of Labor Statistics, February 4, 2011) *W* represents the average hourly earnings of PNS workers in the private nonfarm business sector (annual averages) (see U.S. Bureau of Labor Statistics, Establishment Data Historical Hours and Earnings, Table B-2). According to data extracted from the Bureau of Labor Statistics (see Bureau of Labor Statistics LABSTAT database series CES0500000006; CES0500000001; CES0000000001; CES9000000001), PNS workers in the private nonfarm business sector made up 82.4 percent of the employed private nonfarm workforce and 68.3 percent of the employed total nonfarm workforce in December 2010.

Government workers made up 17.1 percent of the employed total nonfarm workforce in December 2010. Since state and local government workers made up over 87 percent of all government workers in December 2010 (see Bureau of Labor Statistics LABSTAT database series CES9091000001; CES9092000001; CES9093000001), wage and salary data for state and local government workers will be used as a proxy for all government workers. (Note: since finding wage and salary data for all other government workers consistent with wage and salary data for workers at the state and local levels is difficult, we ignore all other government workers here. This does not affect our analysis seeing as all other government workers only represented over 2 percent of the employed total nonfarm workforce in December 2010.) No distinction is made between managerial and non-managerial employees in the government sector for two reasons: 1) pay differentials between supervisory and nonsupervisory workers in the government sector are nowhere nearly as lopsided as they are in the private nonfarm business sector; and 2)

the trends of the real wages and salaries of managerial and non-managerial employees, respectively, in state and local governments were roughly the same between 1981 and 2010 (U.S. Bureau of Labor Statistics, May 10, 2006, 71-78; January 28, 2011). Thus, PNS workers in the private nonfarm business sector plus all government workers made up more than 85 percent of the employed total nonfarm workforce in December 2010.

Government workers bargain for their money wages, W^G , just like workers in the private sector. The only difference is that the wages of government workers are paid through taxation while the wages of workers in the private nonfarm business sector are advanced to them by capitalist employers. Government workers also face the same market prices, P – prices set in the private sector – as private nonfarm business sector workers. We use data from the studies “Employment Cost Index Historical Listing Constant-Dollar, 1975-2005” (U.S. Bureau of Labor Statistics, May 10, 2006) and “Employment Cost Index Historical Listing Continuous Occupational and Industry Series, September 1975 – December 2010” (U.S. Bureau of Labor Statistics, January 28, 2011) for the real wages and salaries of state and local government workers.

According to Fleck, Glaser and Sprague (2011), “the nonfarm business sector accounts for three-fourths of output...in the total economy.” (Fleck, Glaser and Sprague 2011, 57) We use the annual percent change of nonfarm business output per hour (see Bureau of Labor Statistics series PRS85006092) to express the rate of change of real output per hour, A . “In the GDP, the output of general government...[is] based largely on the incomes of input factors. In other words, the measure is constructed by making an implicit assumption of negligible productivity change.”

(U.S. Bureau of Labor Statistics, Labor Productivity and Costs FAQs) We therefore ignore productivity changes in the government sector seeing as the BLS does not measure them. Moreover, productivity changes in the government sector do not interest us because the “wage share” of government sector workers, under our assumptions above, is unity.

The real hourly wage rate of PNS workers in the private nonfarm business sector and the real wage rate of government workers are, respectively:

$$W/P \text{ and } W^G/P.$$

We rearrange the wage-cost markup equation above to obtain the “capitalist class share” (Mohun 2006, 363) in the private nonfarm business sector, i.e. the share of income captured by capitalist owners, managers and supervisory workers in the private nonfarm business sector:

$$k = P.Q/W.h = P.A/W.$$

Since k is inversely related to the wage share, ω , of PNS workers (the wages of PNS workers as a share of total private nonfarm business sector income), we obtain (in levels):

$$\omega = 1/k = W.h/P.Q = W/P.A.$$

We then convert levels into logs to represent the rate of change of the wage share of PNS workers in the private nonfarm business sector. We obtain:

$$\log \omega = \log(W/P) - \log A. \quad (1)$$

Abstracting from changes in labour productivity, Kalecki argued that “the relative share of gross capitalist income and salaries in the aggregate turnover is with great approximation equal to the average degree of monopoly.” (Kalecki 1939, 22) In other words, gross capitalist income (including entrepreneurial income, undistributed profits, dividends, interest, rent, managers’ salaries, other “overhead” costs and depreciation) as a share of total income is determined by firms’ average markup, which in turn depends on the “average degree of monopoly.” Similarly, Mohun (2006) designates the “capitalist class share” as all non-labour income including “supervisory” or “managerial” salaries. Kalecki’s method, as well as Mohun’s, appreciates the class character of “supervisory” or “managers” salaries; because of supervisory labour’s special relation to the interests of the capitalist class, its “wages” are categorized under capitalist-class income. The markup is therefore inversely related to the wage share (Kalecki 1939; 1965). Thus, a higher markup will lead to a lower real wage and a lower wage share.

Kalecki’s model may be expanded to incorporate changes in labour productivity. As is clear from our equation (1) above, if the wage share is to remain constant, real wage growth and labour productivity growth must be equal. If real wage growth exceeds labour productivity growth, then the wage share rises and the “capitalist class share” falls. Conversely, if real wage growth falls behind labour productivity growth, then the wage share falls and the “capitalist class share” rises.

When observing the path of the real wage, cyclical oscillations must be separated from secular trends. According to the National Bureau of Economic Research (NBER, U.S. Business Cycle

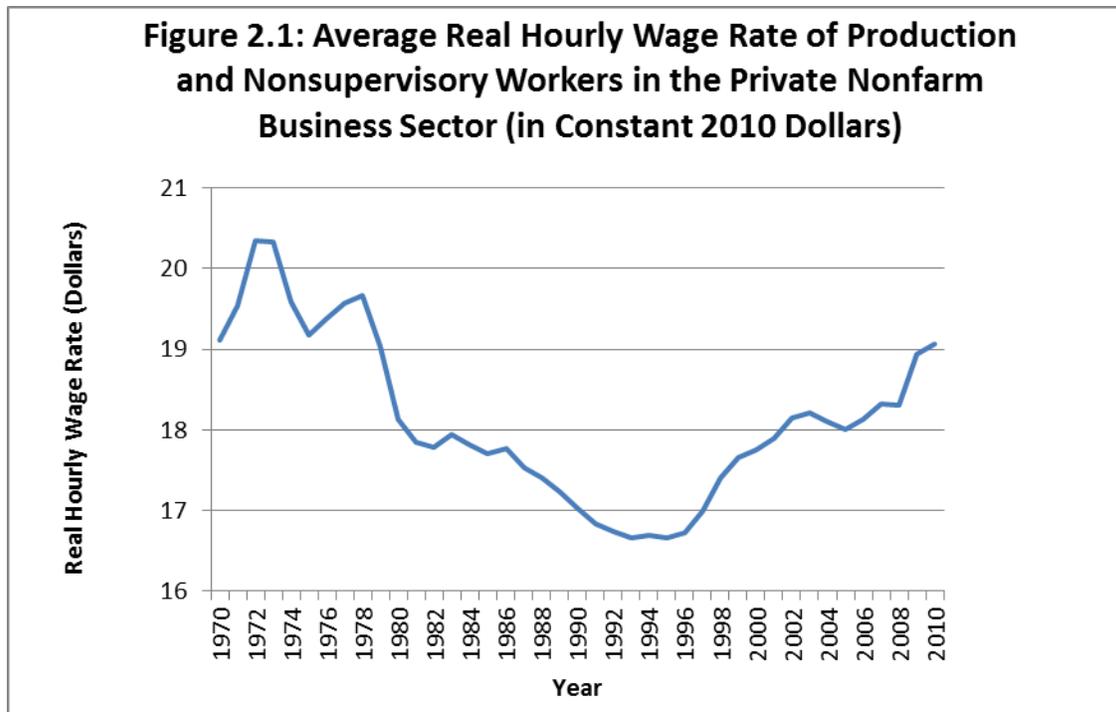
Expansions and Contractions, September 20, 2010), there were seven contractions (recessions) between 1970 and 2010 in the United States. Recessions begin at the peak of a business cycle and end at the trough. The seven recessions are listed as follows (from peak to trough):

1. December 1969 to November 1970
2. November 1973 to March 1975
3. January 1980 to July 1980
4. July 1981 to November 1982
5. July 1990 to March 1991
6. March 2001 to November 2001
7. December 2007 to June 2009

Therefore, with this data, we can better differentiate cyclical from secular changes in the real wage.

We chose to begin our series in 1970 for the following reason: the real wage followed a secular upward trend from the end of WWII to 1972-73. After 1972-73, the real wage declined for an entire generation. In essence, 1972-73 represents a structural break in the path of the real wage. Since 1972 was the peak year for real wages, we decided to include the years 1970 and 1971 to show the tail end of the secular upward trend of the post-WWII period. Starting our series a couple of years before the 1972-73 structural break appreciates how dramatic the turning of the tide was.

We will first investigate the path of the average real hourly wage rate (all figures expressed in constant 2010 dollars) of PNS workers in the private nonfarm business sector (see U.S. Bureau of Labor Statistics, Establishment Data Historical Hours and Earnings, Table B-2). Consider figure 2.1 below. After the end of the first recession in our series, the real hourly wage rate grew, starting at \$19.54 in 1971 and peaking at \$20.34 in 1972, where it remained unchanged throughout 1973. The real wage rate then fell considerably during the 1973-75 recession. Positive real wage growth resumed at relatively tepid rates throughout the 1976-78 recovery, finishing at \$19.67 in 1978. Thus, despite there being positive real wage growth for half of the 1970s, the average real hourly wage rate was only about a dozen cents more in 1978 than it was in 1971. Starting in 1979, we observe a steady decline in the real wage until 1996, notwithstanding positive though lacklustre real wage growth in the years 1983, 1986 and 1994, respectively. That is to say that the real wage consistently declined before, during and after the recessions of 1980, 1981-82 and 1990-91. In other words, cyclical upswings did not raise the real wage during this entire period. Figure 2.1 illustrates the downward secular trend of the real hourly wage rate of PNS workers from peak (1972-73) to trough (1995). The real hourly wage rate dropped from \$20.34 in 1972 to \$16.67 in 1995, an 18.1 percent decline over 23 years!



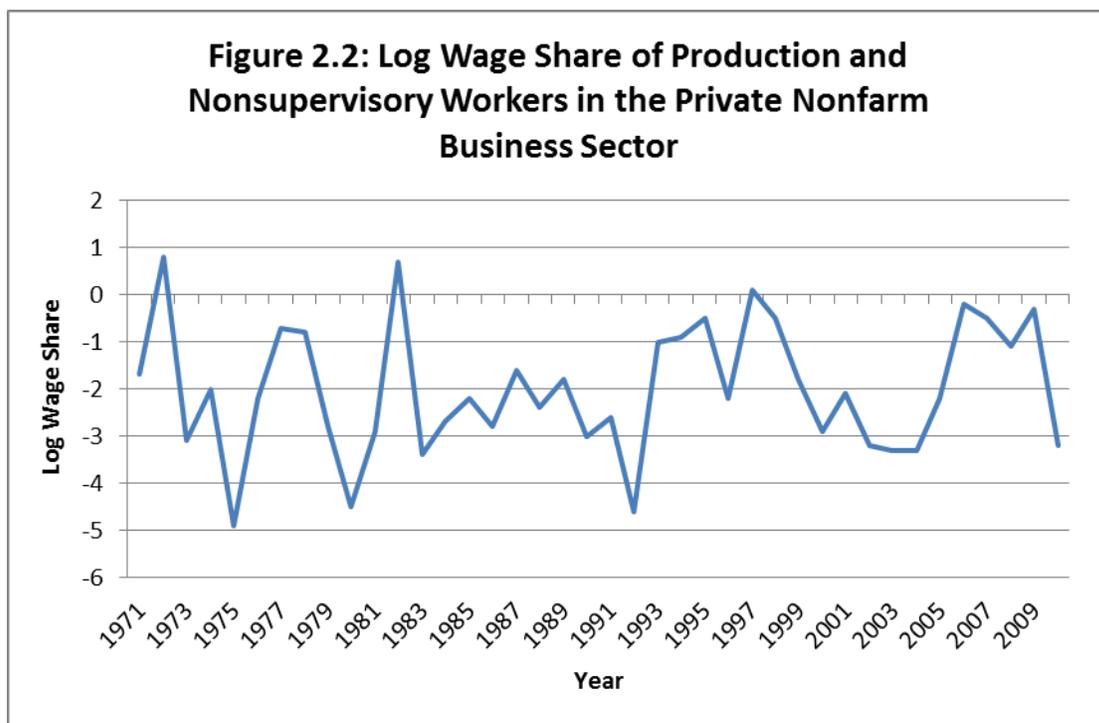
Source: Bureau of Labor Statistics

Real wage growth was then positive between 1996 and 2003, even during the 2001 recession. The real hourly wage went from \$16.73 in 1996 to \$18.21 in 2003. Even though the real wage experienced a pro-cyclical rise during this period, it was still roughly 10 percent below the 1972-73 peak in 2003. The 2004-2010 period was characterized by stagnation, with the exception of a 3.4 percent real wage hike in 2009 due to deflation. The first decade of the 2000s recorded its highest real hourly wage rate in 2010 at \$19.07, still about 6 percent below the 1972-73 peak.

The path of the average real hourly wage rate of PNS workers in the private nonfarm business sector can be divided into three trends. The first trend, from 1972-73 to 1995, was a downward secular trend, briefly interrupted by a weak cyclical upswing in the second half of the 1970s. Money wage growth, although positive, was consistently outpaced by inflation during this period. The second trend, from 1996 to 2003, was pro-cyclical. Thanks to very low inflation,

positive yet weak money wage growth translated into positive real wage growth during this period, even though relatively low unemployment rates should have produced higher money wage growth (Pollin 2003). The third trend, from 2004 to 2010, was one of stagnation.

Equation (1) above expresses the rate of change of the wage share of PNS workers in the private nonfarm business sector. Figure 2.2 below shows how much ground these workers lost over four decades. Except for three years – 1972, 1982 and 1997 – the wage share experienced negative growth year after year. That is, the wage share consistently shrank between 1971 and 2010. All values below, at, and above zero represent negative, zero, and positive growth.

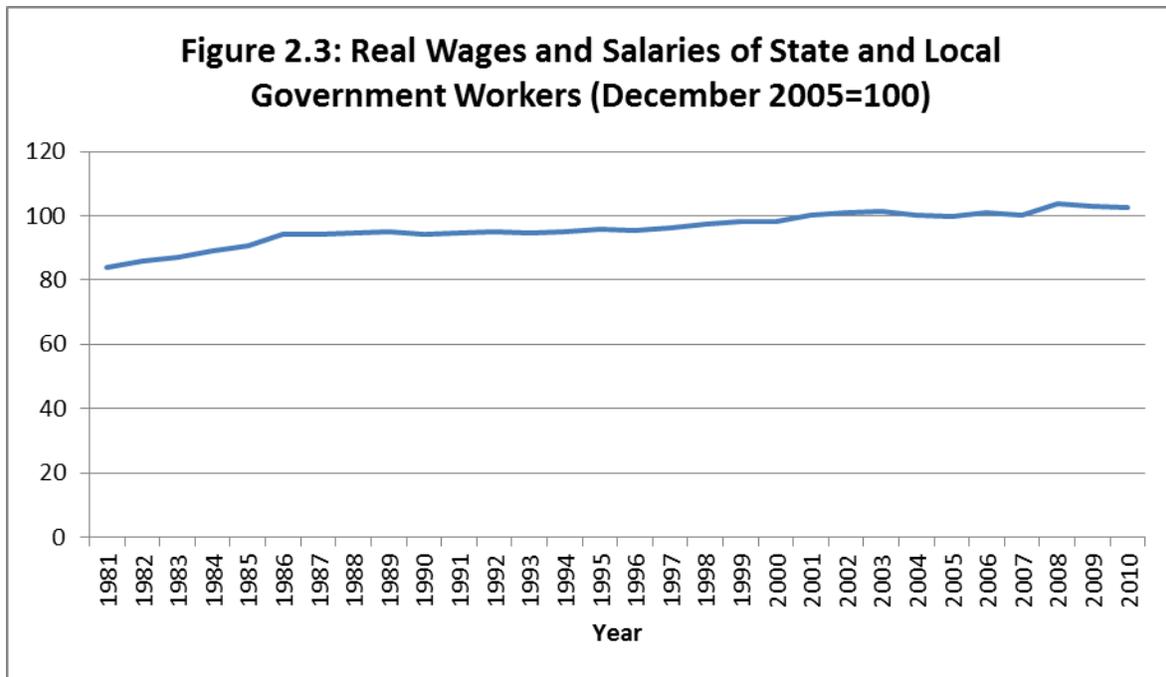


Source: Bureau of Labor Statistics

The two variables that determine the wage share are the real hourly wage rate and real output per hour. According to the Bureau of Labor Statistics, the average annual percent change of labour

productivity in the private nonfarm business sector was: 1.1% from 1973 to 1979; 1.4% from 1979 to 1990; 2.1% from 1990 to 2000; 2.6% from 2000 to 2007; and 2.8% from 2007 to 2010 (U.S. Bureau of Labor Statistics, March 3, 2011). As is clear from figure 2.1 above, the annual percent change of the real hourly wage rate did not even come close to these numbers. Since the early 1980s, the rate of growth of the Consumer Price Index has consistently outpaced the rate of growth of the implicit price deflator of nonfarm output (Fleck, Glaser and Sprague 2011, 62). In other words, the purchasing power of money wages was being eroded by a higher markup. Recalling our third proposition above, the evidence provided by Fleck, Glaser and Sprague suggests that firms' relative bargaining power increased during this period; capitalists had the ability to reduce real wages while raising real output per hour.

Government workers faced a different situation. Except for stagnant real wage growth from the mid-1980s to the mid-1990s and during most of the first decade of the 2000s (U.S. Bureau of Labor Statistics, May 10, 2006, 71-78; January 28, 2011), the real wages and salaries of state and local government workers saw overall gains (see figure 2.3 below; data could not be retrieved for the period 1970-1980). This suggests that government workers had relatively greater bargaining strength than their private nonfarm business sector counterparts. In addition, business cycles appear not to have affected the real wages of government workers.



Source: Bureau of Labor Statistics

Thus, the empirical results appear to confirm our original propositions: when workers have relatively greater bargaining power, they have greater ability to secure a higher money wage rate, which in turn leads to a higher real wage rate. After nearly forty years, the real hourly wage rate of PNS workers has not returned to its 1972-73 peak. Government sector workers, on the other hand, saw their real wages rise overall between 1981 and 2010. Therefore, government sector workers had relatively greater bargaining power than their fellow workers in the private nonfarm business sector. The huge discrepancy between labour productivity growth and real wage growth over four decades translated into a higher “capitalist class share” in the private nonfarm business sector. This led to a shrinking wage share for PNS workers. Over the entire forty-year period in question, there was no tendency for real wage growth and labour productivity growth to converge. We cannot say *a priori* that labour productivity growth guarantees a rising standard of living for workers. That is up to the balance of power between workers and capitalists to

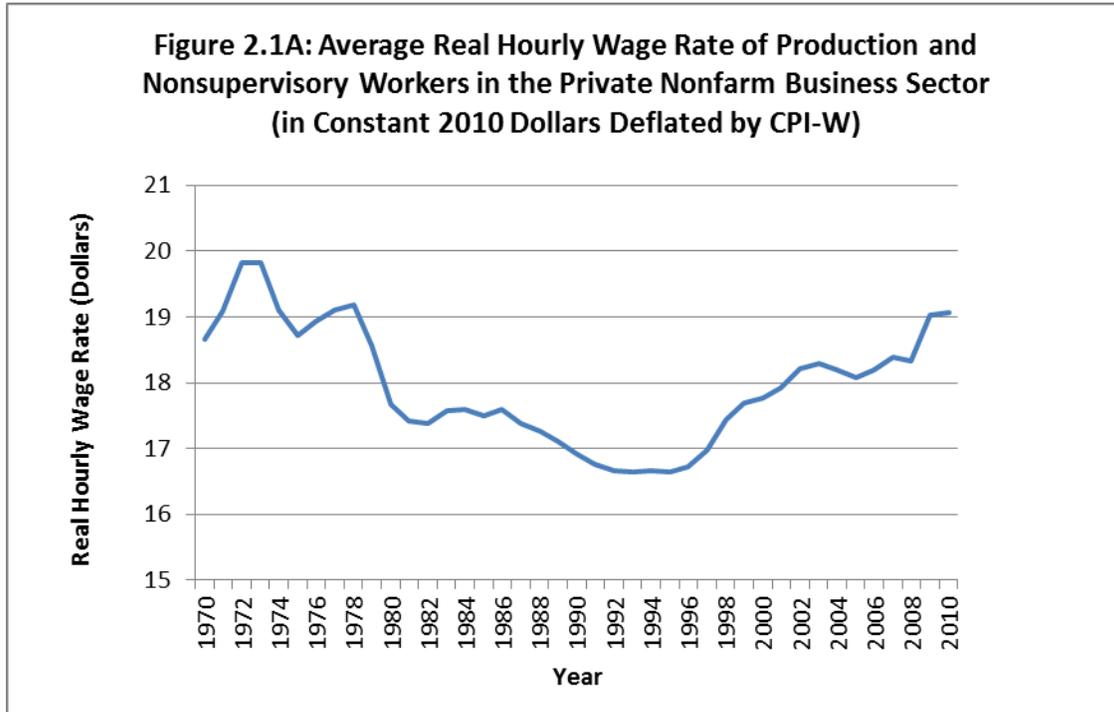
establish. As Maurice Dobb (1928) put it, “the labour market from being a home of the “economic harmonies” is degraded to a disordered battleground, subject to the incalculable wrestlings of what, for want of clearer designation, we call relative bargaining-strength.” (Dobb 1928, 105)

Appendix for Chapter Two

Some may disagree with our decision to deflate the average hourly earnings of PNS workers in the private nonfarm business sector with CPI-U, even though the latter is the most widely used index for these purposes. Therefore, we used two less popular indexes: the “Consumer Price Index – Urban Wage Earners and Clerical Workers” (CPI-W) and the “Consumer Price Index Research Series Using Current Methods” (CPI-U-RS). Although the constant-dollar wage rates are different for each index, the path of the real hourly wage rate in each case resembles the path of the real hourly wage rate using CPI-U in Chapter Two. In each case, the real hourly wage rate experienced a downward secular trend for almost a generation, followed by positive growth and then stagnation (notwithstanding an exceptional hike in 2009). This makes our results in Chapter Two more robust.

According to the Bureau of Labor Statistics, “the CPI-W is a subset of the CPI-U and is based on the expenditures of families living in urban areas who meet additional requirements related to employment: more than one-half of the family's income has to be earned from clerical or hourly-wage occupations. The CPI-W represents about 32 percent of the total U.S. population.” (U.S. Bureau of Labor Statistics, October 16, 2001) The CPI-W series used here is the U.S. city average (all items) with 1982-1984=100 base (annual averages) (U.S. Bureau of Labor Statistics, Series ID CWUR0000SA0). Consider figure 2.1A below. The series is practically identical to the one deflated by CPI-U in Chapter Two. Although the constant-dollar wage rates are slightly different, the path of the real hourly wage rate is the same. Between 1972-73 and 1995, there

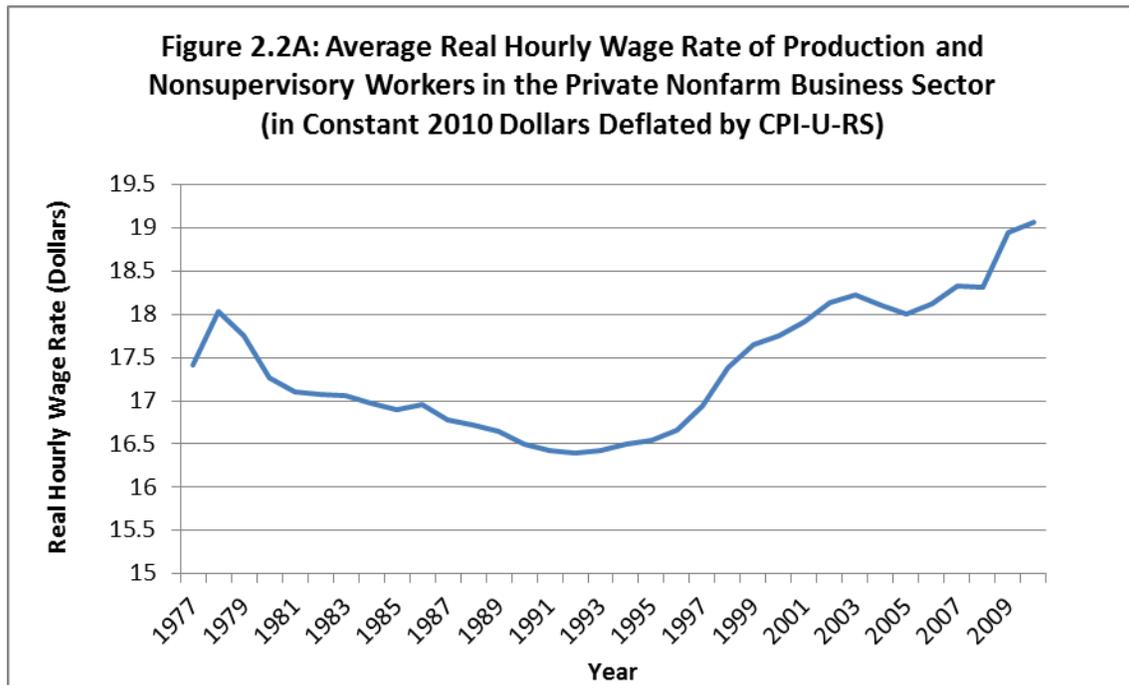
was a downward secular trend. Starting in 1996, the real wage underwent a pro-cyclical rise until 2003, after which the real wage mostly stagnated (with the exception of a hike in 2009 due to deflation).



Source: Bureau of Labor Statistics

The CPI-U-RS was designed by the Bureau of Labor Statistics to estimate what CPI-U would have been between 1978 and 1998 had the methods now used (since 1998) been in effect since 1978. According to the Bureau, “the CPI-U-RS provides an annual inflation series that adjusts only for specified changes in Bureau of Labor Statistics (BLS) methodology. It does not incorporate all possible research results on past inflation.” (U.S. Bureau of Labor Statistics, “Consumer Price Index Research Series Using Current Methods: Questions and Answers”) Although the CPI-U-RS is used by researchers for historical estimates of past inflation, it is still an approximation. The CPI-U-RS series used here is the U.S. city average (all items) with December 1977=100 base (annual averages) (U.S. Bureau of Labor Statistics, “Consumer Price

Index Research Series Using Current Methods (CPI-U-RS)”). Consider figure 2.2A below. Since the series only goes back to 1978, we do not have data for the 1970-1977 period. Given that the path of the real hourly wage rate between 1978 and 2010 resembles the path of the hourly wage rate deflated by both CPI-U and CPI-W, we have reason to believe that the real hourly wage rate peaked in 1972-73 before undergoing a downward secular trend until the mid-1990s. Yet we do not know if the 1972-73 peak was higher or lower than the 2010 value. Figure 2.2A could lead some to conclude that real wages rose overall since the 1970s. But this would be imprecise; that view simply overlooks the fact that real wages fell from their historic highs in the early 1970s. Without knowing what the exact values were for the 1970-1977 period, we cannot conclude definitively that real wages rose or even stagnated overall between 1970 and 2010. Although the constant-dollar wage rates are different in figure 2.2A, the story is the same: a downward secular decline followed by positive growth and then stagnation (with the exception of a hike in 2009).



Source: Bureau of Labor Statistics

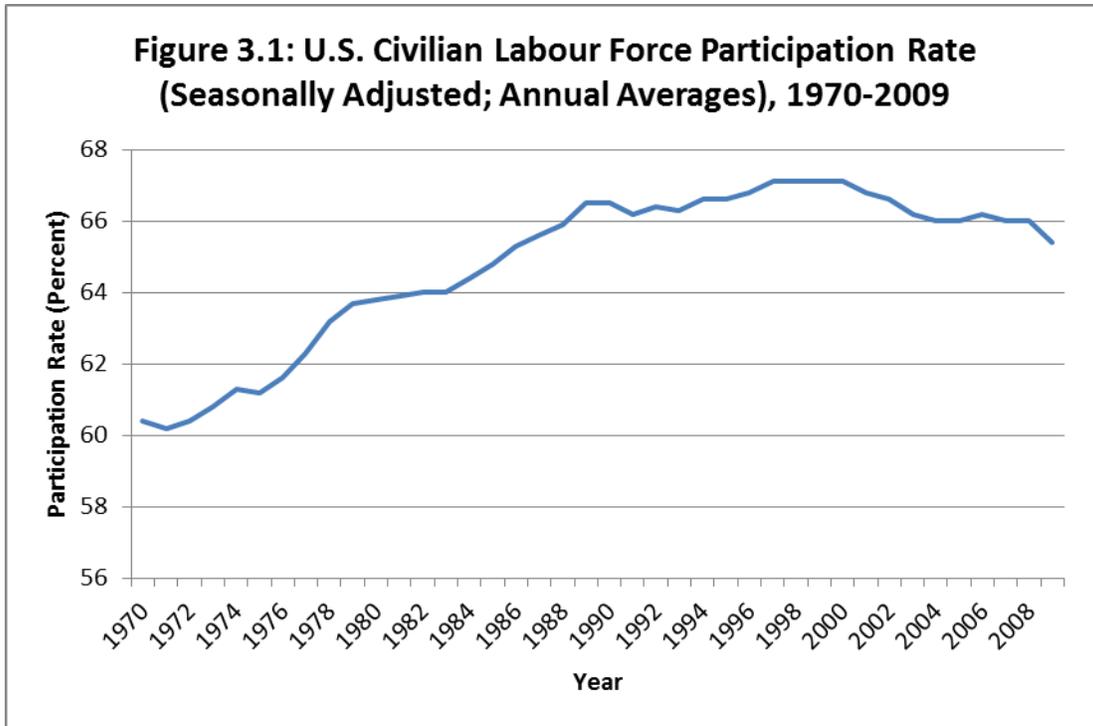
Chapter Three

First Response: Increasing Household Labour Supply

What should we expect when the real wages of the majority of the workforce decline? How do households respond when the purchasing power of their primary source of income is falling and their standard of living is consequently under threat? This chapter proposes that households responded immediately to declining real wages by increasing household labour supply in order to raise real family income. Married women with children responded the greatest to these pressures by increasing their labour force participation and their hours of work. This was precisely the case in the United States in the 1970s and 1980s when the average real hourly wage rate of the majority of the workforce declined dramatically. The evidence shows that the contribution of women's paid labour to household income over this period avoided at the very worst negative, and at best zero real family income growth. But household labour supply hit a ceiling. In the 1990s, for example, labour force participation rates and hours of work decelerated and then stabilized. Even when the United States "achieved the first full employment economy in three decades" (Mishel, Bernstein and Allegretto 2007, 18) in the late 1990s, household labour supply hit an upper bound. During the first decade of the 2000s, labour force participation rates actually declined. These recent developments suggest that households must find other ways to raise their standard of living if increasing household labour supply is no longer a viable option.

Figure 3.1 below illustrates the path of the seasonally adjusted U.S. civilian labour force participation rate between 1970 and 2009 (annual averages), according to the Bureau of Labor Statistics (U.S. Bureau of Labor Statistics, Table 2, March 16, 2011). We observe an upward secular trend in the civilian labour force participation rate until it peaked in the latter half of the 1990s at 67.1 percent. Notice the relatively fast increases in labour force participation during the 1970s and 1980s, precisely when the average real hourly wage rate of PNS workers followed a downward secular trend. The fast increases in civilian labour force participation during two decades of falling real wage rates were significant in comparison to the overall stability of the civilian labour force participation rate between 1948 and 1972 (Mosisa and Hipple 2006, 36). In 1972, when the average real hourly wage rate of PNS workers was at an all-time high of \$20.34 (in constant 2010 dollars), the civilian labour force participation rate was 60.4 percent. In 1995, when the average real hourly wage rate of PNS workers was at an all-time low of \$16.67 (in constant 2010 dollars), the civilian labour force participation rate was 66.6 percent. This represents a 10.3 percent increase in civilian labour force participation against an 18.1 percent decline in the real hourly wage rate between 1972 and 1995. When the average real hourly wage rate of PNS workers began to rise in 1996, the labour force participation rate began to decelerate and then stabilized until the beginning of the new millennium. Finally, throughout the first decade of the 2000s, many workers – especially teenagers aged 16 to 19 (Mosisa and Hipple 2006, 37-38) – simply dropped out of the labour force. Not even the steady *increases* in the labour force participation rate of men and women aged 55 years and older since the mid-1990s managed to offset the declines in the civilian labour force participation rate (Mosisa and Hipple 2006, 37, 49-52). Therefore, we reject the notion that the recent declines in the civilian labour

force participation rate were caused by a “wave” of baby-boomer retirements, and not by a “ceiling effect.”

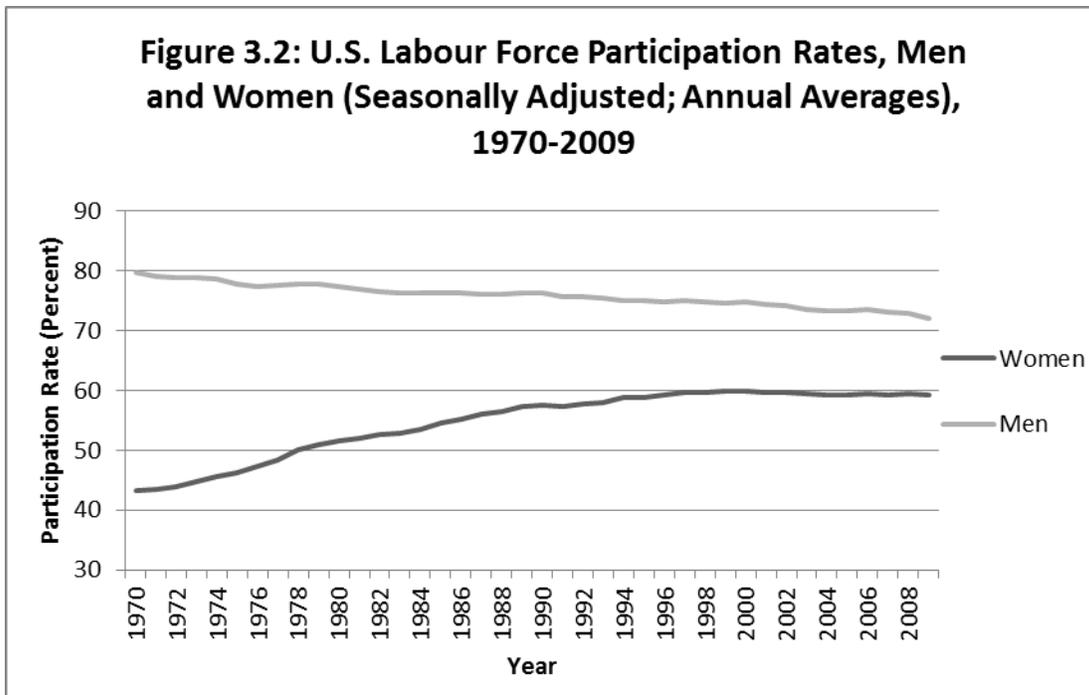


Source: Bureau of Labor Statistics

Although the path of the civilian labour force participation rate is telling, it masks an important development during this period. Figure 3.2 below shows the seasonally adjusted labour force participation rates of men and women aged sixteen and over for the period 1970-2009 (annual averages), according to the Bureau of Labor Statistics (U.S. Bureau of Labor Statistics, Table 2, March 16, 2011). The sharp increases in civilian labour force participation during the 1970s and 1980s can only be explained by the sharp increases in women’s labour force participation. Men’s labour force participation rate steadily declined for four decades, from 79.7 percent in 1970 to 72.0 percent in 2009. This trend was led by declines in the labour force participation rate of men aged 25 to 54 (Mosisa and Hipple 2006, 47). Declines were more pronounced

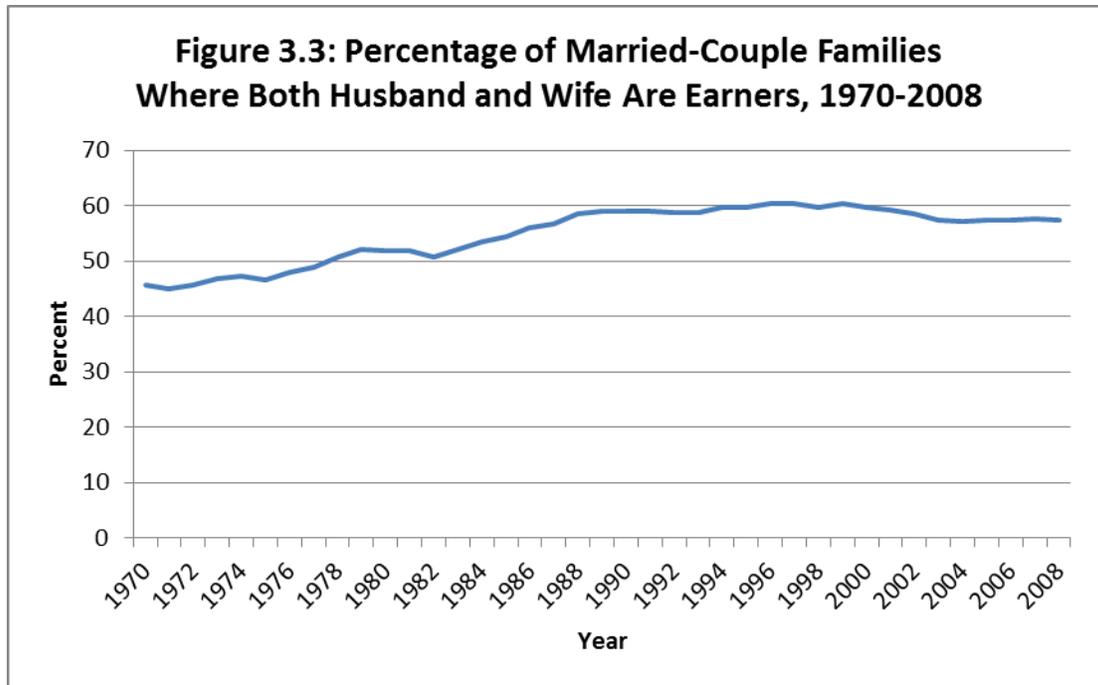
among black men as well as less skilled men with less education. One reason for this was the reduced demand for less skilled workers and the dramatic fall in employment of less educated men caused by profound changes in the U.S. labour market over the past few decades (Mosisa and Hipple 2006, 13-15; see also Juhn and Potter 2006). In contrast, the path of women's labour force participation rate closely mirrored the path of the civilian labour force participation rate: after the relatively fast increases in the 1970s and 1980s, the rate crept up slowly in the early 1990s and then stabilized in the late 1990s (peaking in 1999), while declining slightly in the first decade of the 2000s. In all, women's labour force participation rate went from 43.9 percent in 1972 to 58.9 percent in 1995 – a 34.2 percent increase – and peaked in 1999 at 60.0 percent.

But we must dig even deeper. What really caused the spike in the labour force participation rate of women aged sixteen and over during the 1970s and 1980s was the massive influx of married women with children under age eighteen into the labour force. According to Cohany and Sok (2007), “married mothers accounted for much of the increase in total labor force participation...” (Cohany and Sok 2007, 9) Mosisa and Hipple add that “indeed, during the past half century, much of the increase in women's labor force participation can be attributed to the rising participation rates of women (both married and unmarried) with children. *Most of these gains occurred in the late 1970s and the 1980s.*” (Mosisa and Hipple 2006, 43; italics added) In the early 1970s, married mothers' labour force participation rate was below forty percent. By 1995, it was at 70 percent (Cohany and Sok 2007, 9-10); in other words, it nearly doubled within a generation. Interestingly, married mothers' labour force participation rate began slowing down in the early 1990s and stabilized thereafter (Cohany and Sok 2007, 10).



Source: Bureau of Labor Statistics

The growing importance of the dual wage-earning household in the 1970s and 1980s is supported by figure 3.3 below. Following data from the Bureau of Labor Statistics (U.S. Bureau of Labor Statistics, Table 23, March 16, 2011), figure 3.3 shows the percentage of married-couple families in the United States where both husband and wife are earners. A steady upward trend is discerned between 1970 and 1990, followed by stabilization for the rest of the series. This evidence supports Rima’s (1996) contention that “labor-force participation is typically a *family* rather than an individual decision.” (Rima 1996, 131)



Source: Bureau of Labor Statistics

Given that more women, especially married women with children, joined the labour force, how much did they work in terms of annual hours? According to Mishel, Bernstein and Shierholz (2009, 92), between 1979 and 2000, the average annual hours of paid work performed by married women aged 25 to 54 with children in the lowest quintile increased by 47.3 percent; in the second, by 60.7 percent; in the third, by 56.5 percent; and in the fourth, by 32.5 percent. In the same period, the average annual hours of paid work performed by married men aged 25 to 54 with children in the lowest quintile increased by only 5.2 percent; in the second, by 3.0 percent; in the third, by 3.9 percent; and in the fourth, by 4.9 percent. Therefore, we observe an upward trend in annual hours of paid work at the household level, with married women with children picking up most of the slack (Mishel, Bernstein and Shierholz 2009, 91). Recall that the average real hourly wage rate of PNS workers in 1979 was \$19.04 (in constant 2010 dollars); in 1989, it was \$17.23; and in 2000, it was \$17.75. In 1979, average annual hours of paid work performed

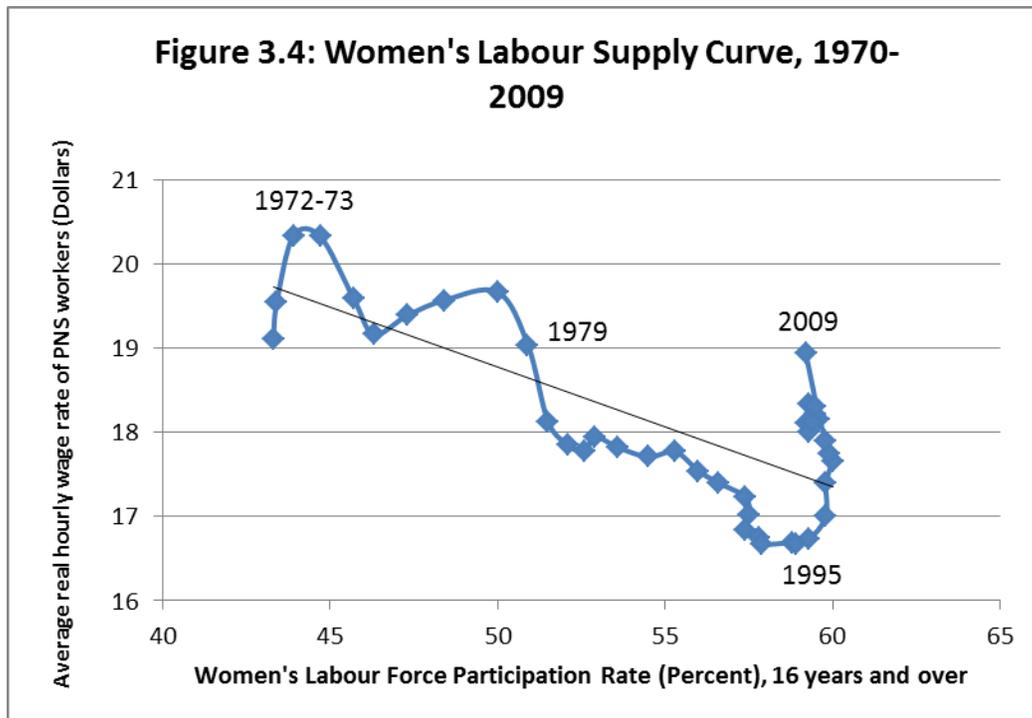
by married women aged 25 to 54 with children in the lowest, second, third and fourth quintiles were, respectively, 509; 741; 892; and 1,103. In 1989, the numbers were, respectively, 694; 1,009; 1,233; and 1,323. In 2000, the numbers were, respectively, 750; 1,191; 1,396; and 1,462. Therefore, we observe the greatest increases in average annual hours of paid work concentrated in the period of declining real wages for PNS workers (1979-1989), and a deceleration occurring during the 1990s, a decade evenly split between declining and rising real wages for PNS workers. Thus, Joan Robinson was certainly correct when she suggested that “it is commonly found that hours become longer and the number of workers in a family greater as real wage rates fall. In short the supply of labour from a given population is likely to have a negative, not positive elasticity, in response to changes in real wages...” (Joan Robinson quoted in Spencer 2006, 470)

If we simply take the average annual hours worked, we notice a steady upward trend. In 1979, 1,703 hours per year were worked on average while Americans spent 43.8 weeks out of the year working. In 2000, Americans were working 1,876 hours per year on average while being at work for 46.9 weeks out of the year. By 2006, these figures were 1,883 and 47.3, respectively (Mishel, Bernstein and Shierholz 2009, 128). Thus, even though labour force participation rates stabilized in the late 1990s and declined in the first decade of the 2000s, average annual hours worked and weeks per year worked continued to climb. Behind these averages, though, is an interesting trend. According to Mishel, Bernstein and Shierholz (2009, 92), the average annual hours of paid work performed by married women aged 25 to 54 with children *declined* in the lowest, second and third quintiles between 2000 and 2006. For married men aged 25 to 54 with children, average annual hours of paid work equally declined in all bottom four quintiles in the

same period. Even though relatively weak labour demand after the 2001 recession may account for most of the declines in work hours (Mishel, Bernstein and Allegretto 2007, 24), participation rates still topped out before the 2001 downturn. Therefore, one could make the argument that “both married men and women appear to be experiencing some extent of a ceiling effect, where their work hours in the paid job market are topped out given other responsibilities in their lives.” (Mishel, Bernstein and Shierholz 2009, 94)

There is something to be said at this point about the post-Keynesian theory of the downward-sloping labour supply curve. As was discussed above, household labour supply tends to increase when real wage rates decline. This was certainly the case in the 1970s and 1980s. Married women with children in the bottom four quintiles joined the labour force in great numbers and increased their annual hours of work tremendously. Married women with children aside, we can construct a downward-sloping labour supply curve for *all* women aged sixteen and over, with the average real hourly wage rate of PNS workers on the ordinate and women’s labour force participation rate on the abscissa. Recall that the average real hourly wage rate of PNS workers includes the wages of women. Consider figure 3.4 below. Women’s labour force participation rate was negatively related to the real wage rate of PNS workers between 1970 and 1995, and highly inelastic between 1996 and 2009 when the real wage rate was both rising and stagnating. In general, though, women seem to have a long-period downward-sloping labour supply curve, as can be discerned from the linear trend line added in figure 3.4. In addition, the evidence in figure 3.4 confirms our contention that households, and in particular married women with children, responded immediately to declining real wages in the 1970s and 1980s with large increases in labour supply in order to raise real family income. In the late 1990s, household

labour supply had reached a limit. Notice the highly inelastic tail of the labour supply curve for women since the latter half of the 1990s. If men's participation rates are persistently declining (as they indeed have), then it may be fair to conclude that the strategy of increasing household labour supply to raise living standards came to an end in the late 1990s.



Source: Bureau of Labor Statistics

What was women's contribution to real household income in this period? Data presented by Mishel, Bernstein and Shierholz (2009, 93) show that, had it not been for married women's wage income, real family income would have fallen for the bottom forty percent of prime-age, married-couple families with children between 1979 and 2006. In fact, median real family income for married couples would have declined overall between 1973 and 2007, with the declines concentrated heavily in the period 1979-1995, had wives not entered into the paid labour force as they did (Mishel, Bernstein and Shierholz 2009, 56). Thanks to married women's

labour force participation, real family income rose overall in each of the four bottom quintiles between 1973 and 2007 (Mishel, Bernstein and Shierholz 2009, 59). But this ignores a serious development in the lowest quintile. For example, real family income at the upper limit of the lowest quintile stagnated between 1973 and 1995 (even as married women in the lowest quintile entered the labour force in great numbers), rose sharply between 1995 and 2000, and then declined between 2000 and 2007 (Mishel, Bernstein and Shierholz 2009, 61-62). Even though real family income rose overall between 1973 and 2007 at the upper limit of the lowest quintile, those gains were concentrated in the period 1995-2000, when real wages rose and unemployment rates were relatively low.

If real family income did indeed grow overall in each quintile during the period 1973-2007 (thanks primarily to wives' contribution to household income), then the idea that households increase their labour supply just enough to maintain a given standard of living may be misleading. If the stylized post-Keynesian theory of labour supply were in fact true, then real family income would have been constant during this period. According to Mongiovi (1991) and Lavoie (1992), households will offer more labour at the margin when real wages fall in order to maintain a targeted level of real income associated with a given standard of living. This assumes that the downward-sloping labour supply curve has constant elasticity of substitution. This view has long guided post-Keynesian thinking on the matter, as is clear from our discussion in the literature review above. But the empirical evidence suggests that U.S. households increased their labour supply in reaction to falling real wages *not* to maintain a targeted level of real family income, but to *raise* real family income. This makes intuitive sense, for if households were accustomed to seeing their real incomes grow for an entire generation (as was the case in the

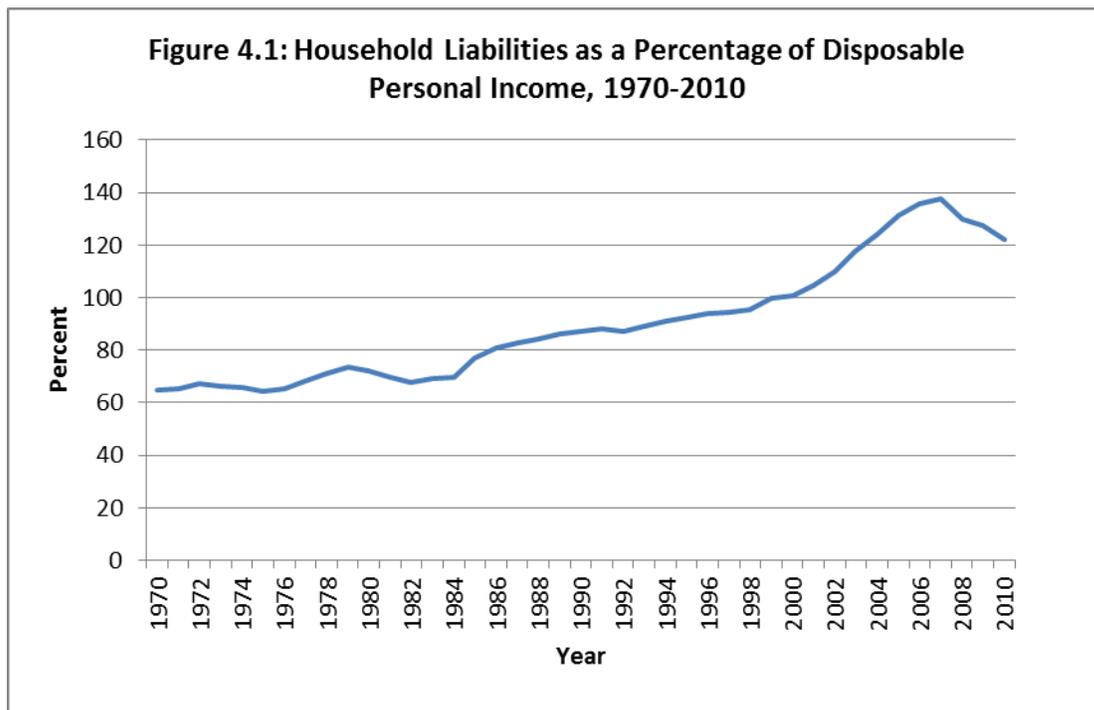
post-WWII period), then they will continue to expect real income growth and a rising consumption standard. Thus, households will increase their labour supply even more so if real wages decline so that they may raise their real income and consumption standard, and *ipso facto* their standard of living. Therefore, the household labour supply curve is indeed downward-sloping but it does not have constant elasticity of substitution. This implies that households have a longer view of rising real income and rising living standards; the data suggest that households behave in accordance with this principle.

Chapter Four

Second Response: Surging Household Debt

As was pointed out in the last chapter, the bottom eighty percent of the income distribution experienced positive real family income growth in an era of declining real wages thanks to increasing household labour supply. In light of this fact, we proposed that households behaved in such a manner because they sought to continue raising their consumption standard and, *ipso facto*, their standard of living despite declining real wages. Precisely when the strategy of raising living standards by increasing household labour supply was exhausted in the late 1990s, there began an unprecedented surge in household debt, driven primarily by home mortgage debt. This chapter suggests that the recent surge in household debt supports the view that households sought to continue raising their standard of living via debt in a time when a “flattening in hours suggests an important structural limitation to future family income growth.” (Mishel, Bernstein and Shierholz 1009, 94) Therefore, we propose that surging household debt since the late 1990s was a symptom of the ever-persistent “American Dream” despite flattened work hours and historically low real wages. As Duesenberry (1949) pointed out, “people do not expect to live as their parents did, but more comfortably and conveniently” seeing that “a rising standard of living is one of the major goals of our society.” (Duesenberry 1949, 26)

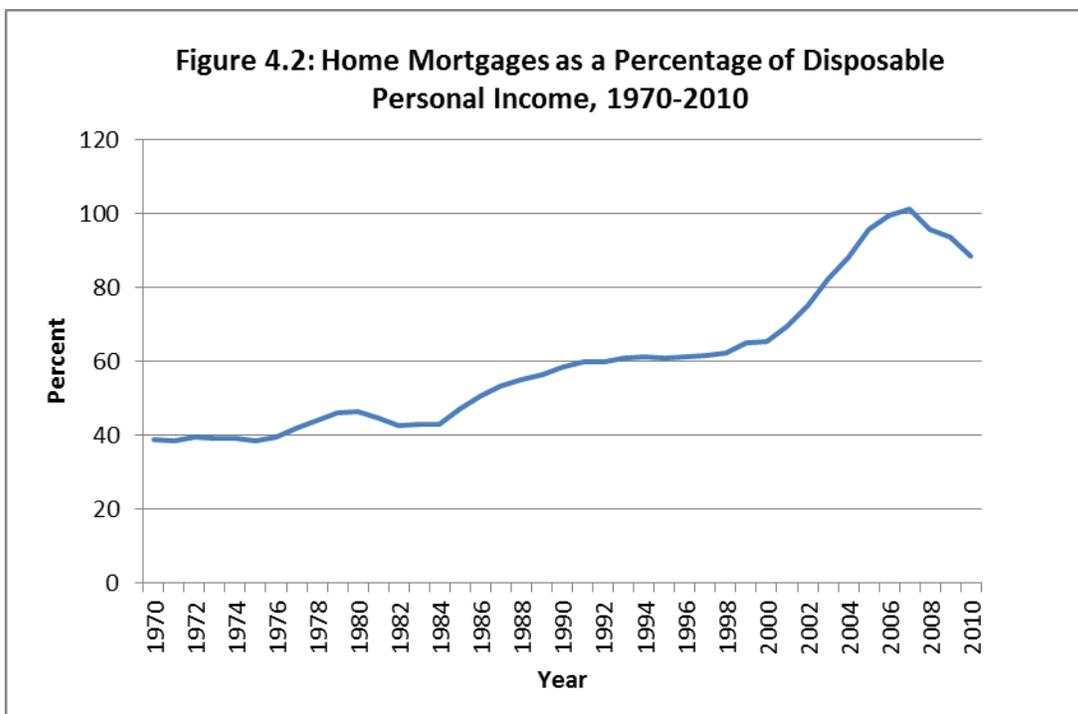
According to the Federal Reserve Board’s *Flow of Funds Accounts* (Federal Reserve Board, Historical Data, March 10, 2011), household liabilities as a percentage of disposable personal income (DPI) rose at a fairly moderate pace between 1970 and 1998. Consider figure 4.1 below. In 1970, household liabilities were 64.7 percent of DPI and, by 1998, they were 95.4 percent of DPI. After 1998, household liabilities as a percentage of DPI exploded until the onset of the economic downturn in 2007. Household liabilities leapt from 100.7 percent of DPI in 2000 to 137.8 percent of DPI in 2007. In other words, household liabilities as a percentage of DPI grew by almost 38 percent in only 9 years whereas they grew by 47 percent in the 28 years before that!



Source: Federal Reserve Board

Now, consider figure 4.2 below. According to the Federal Reserve Board’s *Flow of Funds Accounts*, the value of home mortgages as a percentage of DPI trended upwardly between 1970 and 1998, in effect mirroring the trend of household liabilities as a percentage of DPI shown in figure 4.1. For example, home mortgages were 38.9 percent of DPI in 1970 and 62.2 percent of

DPI in 1998. After 1998, home mortgages skyrocketed from 65.5 percent of DPI in 2000 to 101.1 percent of DPI in 2007. That is, home mortgages as a percentage of DPI increased by over 54 percent in 9 years whereas they increased by close to 60 percent in the 28 years before that. It then fell precipitously between 2007 and 2010 when the housing bubble burst. The “goodness of fit” between household liabilities as a percentage of DPI and home mortgages as a percentage of DPI in figures 4.1 and 4.2, respectively, supports the view that home-secured debt in the United States, especially in the first decade of the 2000s, cannot be overstated. Bucks, Kennickel and Moore (2006, A1) unambiguously attribute rising household debt to the growth in debt secured by real estate.



Source: Federal Reserve Board

What was behind this surge in household debt, driven primarily by home mortgage debt? The main factors driving home mortgage debt were: 1) rising home values coinciding with rising home ownership rates; 2) the explosion in home equity loans; and 3) greater supply of credit in

general. According to the Standard & Poor/Case-Shiller U.S. National Home Price Index cited by Mishel, Bernstein and Shierholz (2009, 291-292), home prices began to show strong annual gains in the late 1990s, and accelerated gains from 2002 to 2005. This surge in home prices coincided with a surge in home ownership rates. Throughout the 1970s and 1980s, home ownership rates nationally were confined within the range of 63 and 66 percent. But from the mid-1990s until the mid-2000s, home ownership rates rose steeply, from roughly 64 percent to 69 percent (Dymski 2009, 159; Mishel, Bernstein and Shierholz 2009, 291). For example, from 1989 to 2005, home ownership rates increased from 46.4 percent to 51.0 percent in the bottom quartile of the income distribution; from 56.3 percent to 63.3 percent in the next quartile; and from 68.6 percent to 78.5 percent in the third quartile (Mishel, Bernstein and Shierholz 2009, 280). In other words, the middle fifty percent of the income distribution saw the greatest gains in home ownership during the housing boom. But we cannot underestimate the role of subprime mortgages offered to lower-income households during the latter stages of the housing boom. According to Lapavitsas (2009), “the explosion of mortgage-lending in 2001-3 met housing demand from households on significant income. When this demand was sated, subprime-mortgage lending rose rapidly (particularly during 2004-6) amounting to \$1.75 tr...Borrowers were from the poorer sections of the US working class, often black or Latino women.” (Lapavitsas 2009, 117; see also Dymski 2009, 167; Mishel, Bernstein and Shierholz 2009, 294) While subprime mortgage originations claimed only 9 to 10 percent of the total value of all mortgage originations (prime and subprime) between 2001 and 2003, their share rose to 24%, 27% and 29% in 2004, 2005 and 2006, respectively (Mishel, Bernstein and Shierholz 2009, 294).

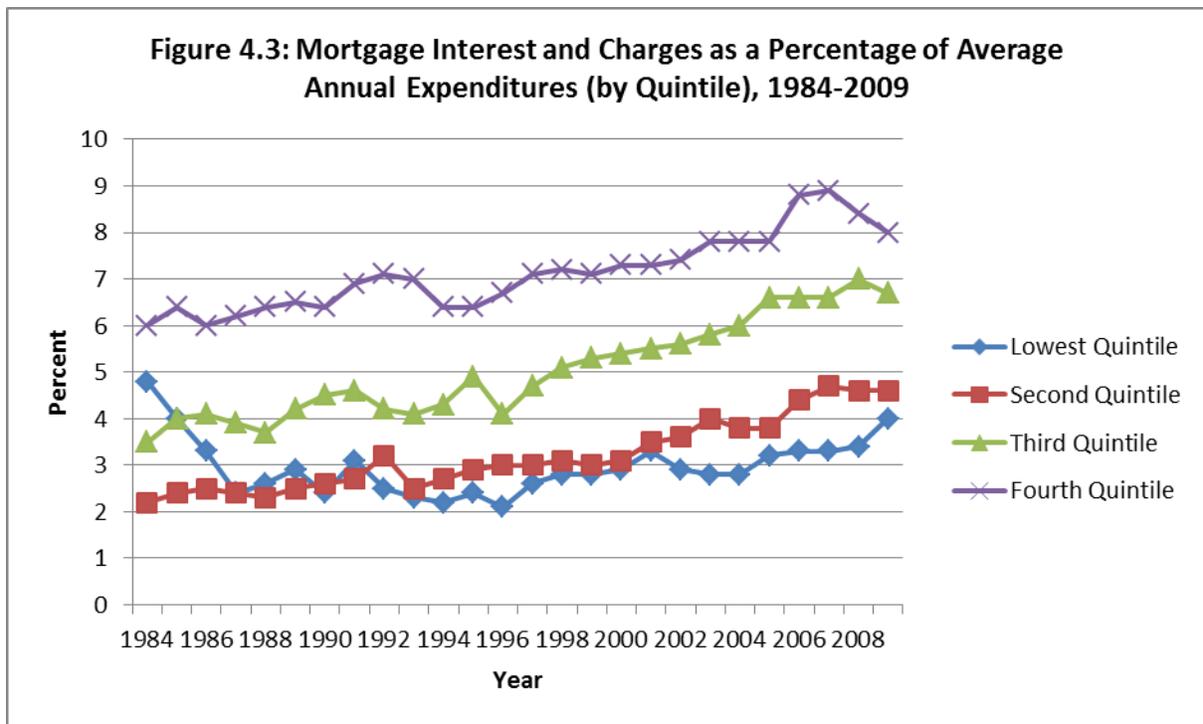
Barba and Pivetti (2009) add that “the rise in household indebtedness has largely reflected a growing tendency of households to extract equity from the value of their houses...” (Barba and Pivetti 2009, 114) Barba and Pivetti are in fact identifying a relatively new phenomenon. In 1990, home equity loans as a percentage of disposable personal income was at 5.0 percent and only at 5.7 percent in 2000. But by 2007, it had more or less doubled to 11.0 percent (Mishel, Bernstein and Shierholz 2009, 284-285). As long as the housing boom persisted, households could tap into greater volumes of liquidity via home equity loans. The pressure to access credit by any means necessary certainly makes sense, especially when real family income growth between 2000 and 2007 was negative in the bottom two quintiles and close to zero in the next two quintiles (Mishel, Bernstein and Shierholz 2009, 59).

The fact that the housing boom greatly increased the supply of credit via home equity loans to low and middle-income households cannot be overlooked. Homeowners’ equity as a percentage of home value had dropped precipitously since 2000 after declining steadily throughout the 1990s (Mishel, Bernstein and Shierholz 2009, 292). Since homeowners’ equity “is the value of a home minus the outstanding balances of mortgages (including home equity loans),” (Mishel, Bernstein and Shierholz 2009, 293) the massive increase in home equity loans may explain the amazing decline in homeowners’ equity even while home values were rising at a fast pace between 2000 and 2005. Declining home values after the peak in the first quarter of 2005 would explain the continued drop in homeowners’ equity thereafter (Mishel, Bernstein and Shierholz 2009, 292). Home equity as a percentage of home value declined so dramatically that by the second quarter of 2008, it stood at 45.2 percent (Mishel, Bernstein and Shierholz 2009, 293). In

other words, banks owned more than half of the U.S. housing stock! Even though households had greater access to liquidity via home equity, this scheme depended purely on a bubble.

The immediate consequence of surging home mortgage debt was greater household indebtedness among low and middle-income households. Bucks, Kennickel and Moore (2006, A1) state that families had to devote a growing share of their incomes to service their debts during this period despite lower interest rates. In general, lower interest rates and the easing of credit supply constraints (i.e. subprime mortgages) facilitated the rise in home mortgage debt. Barba and Pivetti (2009, 118) show that home mortgage debt as a percentage of disposable personal income (DPI) affected households in different income quintiles unevenly. In the bottom quintile, it was off the charts in 2004: 333.3% of DPI. For the second lowest quintile, it was 207.4%; for the third quintile, 180.6%; and for the fourth, 142.4%. With this information, we may safely conclude that the severity of home mortgage indebtedness is negatively related to income. As a result, household debt service as a percentage of household income rose between 1989 and 2004, according to Mishel, Bernstein and Shierholz (2009, 288). In the lowest quintile, it rose from 14.1 percent of household income to 18.2 percent; in the second, from 13.0 percent to 16.7 percent; in the third, from 16.3 percent to 19.4 percent; and in the fourth, from 16.9 percent to 18.5 percent. Also significant was the rise in the personal bankruptcy rate and the growing share of households experiencing financial distress during this period (Ausubel 1997, 250; Boushey and Weller 2008, 1; Foster and Magdoff 2009, 29-33; Mishel, Bernstein and Shierholz 2009, 289-290).

In addition, mortgage interest and charges as a percentage of average annual expenditures in the bottom four quintiles have grown over the last 25 years, especially since the late 1990s, according to the Consumer Expenditure Survey (U.S. Bureau of Labor Statistics, Consumer Expenditure Survey, October 5, 2010). Consider figure 4.3 below. In the lowest quintile, the share of annual expenditures devoted to mortgage interest and charges was more or less flat from the mid-1980s to the mid-1990s. Between 1996 and 2009, though, it doubled. The next three quintiles experienced a similar story. After inching upwardly through to the mid-1990s, the share of annual expenditures devoted to mortgage interest and charges rose substantially thereafter.



Source: Bureau of Labor Statistics

Home ownership offered the promise of stability and certainty to low and middle-income households living increasingly under financial difficulty and insecurity. In fact, the merits of

home ownership have been hailed for a long time. In “The Housing Question,” Engels (1962) cited Emil Sax, a proponent of the wonders of home ownership. In reference to the worker, Sax stated that “he would become a capitalist and be safeguarded against the dangers of unemployment or incapacitation as a result of the credit which his real estate would open to him. He would thus be raised from the ranks of the propertyless into the propertied class.” (Emil Sax quoted in Engels 1962, 585) This was perhaps the case to some extent when home equity loans as a share of disposable personal income exploded. But more equity loans led to more household debt. More household debt led to greater financial insecurity, especially when the housing market began to cool down and finally busted. In response to Sax, Engels argued that “the house is prevented from becoming capital precisely by the fact that the worker lives in it himself, just as a coat ceases to be capital the moment I buy it from the tailor and put it on.” (Engels 1962, 586) The point Engels was making was that, from the point of view of a wage-earning family, a house is first and foremost a use-value. Most wage-earning households, unlike *rentiers*, do not purchase a house in order to generate capital gains and rental income, or to extract equity. Although the exchange-value of a house is an important contributor to household wealth, this concern is trumped by a house’s primary function as a place to live and raise a family. In this way, Engels’ analogy to the coat is correct. Although a coat may have exchange-value at a pawnshop when times are rough, it has an immediate use-value to the bearer of that same coat; it is unlikely that someone will forego a coat no matter what the circumstances are given its primacy in the hierarchy of basic needs. Similarly, if a household is in financial distress, the option of extracting equity or the decision to liquidate a home, especially during a downturn, is not so easy. When a housing bubble bursts, the exchange-value of a house falls, and its function as “capital” quickly vanishes. Hence, when home values decline and home equity loans become

scarce, houses “cease to be capital” or “tangible assets” and turn into tangible liabilities. This is supported by data from the *Flow of Funds Accounts*. The market value of real estate held by U.S. households (in billions of dollars) dropped precipitously during the crisis:

2006: 22,687.7

2007: 20,879.4

2008: 17,470.3

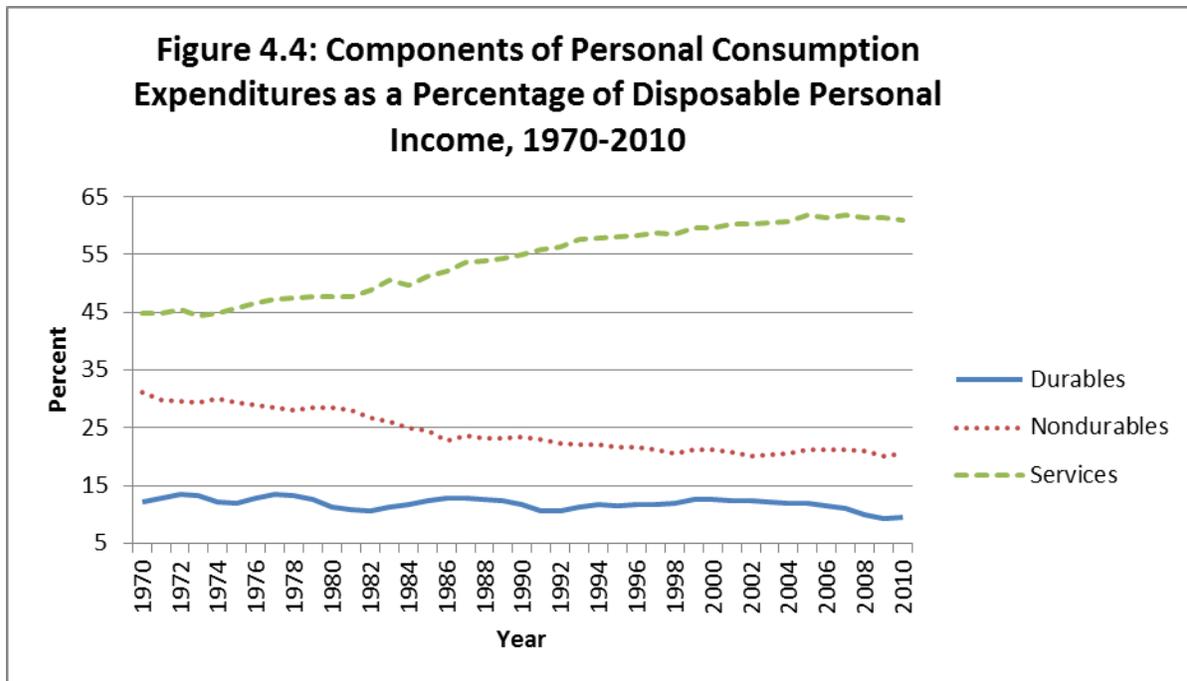
2009: 17,081.0

2010: 16,370.4

This implosion of the real estate market severely deflated household net worth. Thus, low and middle-income households’ strategy of raising their standard of living via home ownership in the context of a speculative bubble and deteriorated family balance sheets ultimately ended in bankruptcy and dispossession (Mishel, Bernstein and Shierholz 2009, 295) – many low and middle-income households fell from the ranks of the “propertied” to the ranks of the “propertyless” – as the “balance-sheet recession” (Palley 2011, 11) deepened.

As was discussed in the literature review above, three different albeit not mutually exclusive arguments are usually forwarded to explain the recent rise in household debt in the United States: 1) households accumulated debt either to maintain a “normal” standard of living, or maintain their relative standard of living; 2) households recklessly accumulated debt in order to imitate the

consumption behaviour of their wealthier neighbours; and 3) households accumulated debt simply because the supply of credit increased tremendously in recent decades. The first and third arguments are closer to the truth while the second does not further our understanding of surging household debt in this particular historical conjuncture. We showed in Chapter Three that, despite declining real wages for the majority of U.S. workers, households were able to raise real family income thanks primarily to the labour supply responses of married women with children. This fact is appreciated by Mishel, Bernstein and Shierholz (2009), Warren (2006), and Warren and Tyagi (2003). But despite positive real family income growth across the board, Warren (2006, 30) and Warren and Tyagi (2003, 49-54) convincingly argue that the rising cost of basic needs such as health insurance, child care, education, transportation, and indeed housing – the “customary necessities” associated with a socially and historically fashioned “decent” standard of living in today’s America – have left families today with less discretionary income than families in the 1970s. Aside from home mortgages, personal consumption expenditures on services as a share of disposable personal income have grown at an astonishing pace since the late 1970s, according to the Federal Reserve Board’s *Flow of Funds Accounts*. Consider figure 4.4 below. While personal consumption expenditures as a percentage of DPI on durables have remained flat, and personal consumption expenditures as a percentage of DPI on nondurables have steadily declined, expenditures on services have grown from 45.7 percent of DPI in 1975 to 61.9 percent of DPI in 2007. This has indeed left households with much less discretionary income.



Source: Federal Reserve Board

The information in figure 4.4 in conjunction with the analysis forwarded by Warren and Tyagi suggests that family balance sheets were being progressively squeezed by greater outlays and the higher costs associated with these outlays. In response to the advocates of so-called “downshifting,” i.e. Schor (1998), Warren and Tyagi ask “just how far down these families are supposed to shift?” (Warren and Tyagi 2003, 52) Therefore, it is reasonable to believe that households were spending more because their “normal” standard of living compelled them to do so. In the end, surging household debt until 2007 seemed to have helped the majority of households avoid a declining standard of living.

We showed at the beginning of this chapter that household debt, and especially home mortgage debt, exploded precisely when increasing household labour supply was no longer a viable strategy to raise households’ standard of living. Home ownership arguably sustained this quest

to raise living standards, only to end in crisis. We suggest here that wage-earning households in America always seek to satisfy a certain standard of living deemed “normal” according to social convention, but more importantly, they seek to *improve* their standard of living over time. Warren and Tyagi are correct to stress that households were trying to maintain a normal “middle-class” standard of living and that this standard of living was becoming more expensive (re: home values) and demanded continuous upgrading. But, Warren and Warren and Tyagi stop there. Instead, we propose that households not only try to maintain a “normal” standard of living; they also try to improve it. And the struggle to improve one’s lot ends up being that much harder when one is facing total war in the field of income distribution. Note that in Chapter Two we established that the wage share of PNS workers had declined continuously for over four decades. The struggle to better one’s standard of living in a time of high income inequality, topped out work hours, and historically low real wages can only be achieved via greater indebtedness. Therefore, Barba and Pivetti may be right when they say in reference to rising household debt that “households struggle to preserve not only their absolute but also their relative standards of consumption...” (Barba and Pivetti 2009, 122) Home ownership is a significant facet of a “decent” standard of living in America. If we were to adopt the position taken by Schor, then those lower-income households that bought homes with subprime mortgages were plainly foolish and profligate. This latter position, we believe, is erroneous. Instead, if we were to interpret rising home ownership rates as a sign that households wanted to improve their standard of living in a time of growing income inequality, then what we are witnessing is not moral decay but rather the quest of wage-earning households to better their lot despite the unprecedented growth in income inequality. As Duesenberry suggested, American households *expect* their living standards to rise. That is the “American Dream.” Since work hours appear to be topped out and

the real wages of the majority of workers remain well below their historic highs, it is not at all surprising that wage-earning households attempted to improve their standard of living by incurring debt while labour productivity and the national income pie continued to grow. Chapter Two established that PNS workers lost ground for four decades. Had the real wages of workers risen in step with labour productivity over this period, perhaps wage-earning households would not have worked more and buried themselves in debt. Perhaps they could have purchased new homes without incurring astronomical volumes of debt. Therefore, the problem is not that low and middle-income households were consuming too much. Rather, the problem is that they were consuming too little.

Conclusion

The present thesis is a study of the effects of declining real wages on the behaviour of wage-earning households in the United States between 1970 and 2010. PNS workers in the private nonfarm business sector – who make up the majority of the U.S. workforce – saw precipitous declines in their real wages for a full generation, followed by temporary gains and then a mixed bag of increases and decreases. Government workers, on the other hand, did not suffer as much.

In reaction to declining real wages, household labour supply increased in order to raise real family income. The fact that households did not increase their labour supply simply to maintain a targeted level of real family income suggests that households continued to struggle for a higher standard of living. Therefore, there is reason to believe that households hoped to raise their standard of living despite growing income inequality. This suggests that perhaps households were attempting to maintain their relative social position. Had households not responded to declining real wages by increasing household labour supply, then, as Marx pointed out in *Wages, Price and Profit* (1974), “[their] *relative wages*, and therewith [their] *relative social position*, as compared with that of the capitalist, would have been lowered. If the working man [and woman] should resist that reduction of relative wages, he [or she] would only try to get some share in the increased productive powers of his [or her] own labour, and to maintain his [or her] former relative position in the social scale.” (Marx 1974, 45) In essence, households increased their labour supply in order to capture that share of “the increased productive powers” of their labour which had become more and more elusive.

Precisely when increasing household labour supply as a strategy to raise their standard of living and maintain their “relative social position” hit an upper bound, households proceeded to take on astronomical amounts of debt to continue raising their standard of living. The increased demand for home ownership and the equi-proportional increase in the supply of credit to fulfill that demand temporarily alleviated the mounting contradictions in the U.S. macro-economy. But, the contradiction between households’ desire to raise their standard of living and households’ shrinking share of income finally surfaced in 2007/2008. If real wages do not rise sufficiently over the medium term, then wage-earning households will ultimately face downward pressure on their standard of living. The tyranny of fundamentals will, in due course, be asserted and “‘customary necessities’ will, in the end, be squeezed up, so that conveniences that were customary at an earlier period may eventually become ‘luxuries’...In the long run, in other words, workers’ consumption levels tend to adapt to the course of their normal real wages.” (Barba and Pivetti 2009, 124-125)

Finally, Warren and Tyagi (2003) convincingly show that households were being progressively squeezed by rising prices for basic needs and faltering earnings since the early 1970s. As they point out, households (both Mom *and* Dad) needed to work harder and go into debt to make ends meet, pushing them into a state of financial precariousness. Warren and Tyagi’s analysis suggests that households tried to maintain their acquired “middle-class” standard of living. We do not disagree. Yet this is not the whole story. Why would households not want to raise real family income with the view of *raising* their standard of living? Is not the “American Dream”

culturally powerful enough to condition the behaviour of wage-earning households, especially during a time of growing income inequality? When workers are being squeezed, they are without a doubt focused on making ends meet, but they also, we argue, have a longer view in mind: improving their material standard of living at all costs.

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