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# **JOURNAL OF ACADEMY OF BUSINESS AND ECONOMICS™**

**Managing Editors:**

**Professor Cheick Wague, Ph.D.**  
South Stockholm University, Sweden

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Babes Bolyai University, Romania



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# **Journal of Academy Business and Economics™**

**Volume 13, Number 4, 2013; ISSN: 1542-8710**

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### **A Welcome Note:**

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We are happy to introduce to you Volume 13 for the year 2013. In this year, we present to you three issues of the ***Journal of Academy of Business and Economics***. In this issue Number 4 of the journal (JABE), we have published high quality research articles primarily in Finance, Management, Ethics, Economics, Operations Management, marketing, and related areas. Each article has successfully undergone a double-blind peer review process. The JABE is a peer-reviewed journal listed in the Cabell's Directory 2012-14 Editions. The journal has ISSN number (**ISSN: 1542-8710**) issued by the Library of Congress, Washington, DC. The JABE is also listed in the Ulrich's International Periodicals Directory. The JABE is available online from the EBSCO Publishing, Cengage/Gale Group Publishing and SCOPUS. All rights reserved. ©2013 IABE.

The objective of the journal is to create and provide a worldwide forum for faculty, professionals, and students to publish and share developments in the business, economics, and related fields, particularly relevant at the international level, to help continuously improve teaching, scholarship, and practice. We believe that the JABE has been fulfilling these objectives in each of its volume and issue. We welcome your assessment of these objectives.

We express our sincere thanks to all our reviewers for their invaluable timely help in reviewing the papers. The editorial board of the IABE has significantly contributed towards the success of the journal and we commend the editorial board. We thank to all the authors who submitted their papers for review for the journal.

Our website is redesigned and you are welcome to submit your paper online at [www.iabe.org](http://www.iabe.org) for review, see the status of your paper under review, and much more.

We look forward to your participation and support for continued success of the JABE.

Best Regards,

Professor Cheick Wagué, Ph.D.  
South Stockholm University, Sweden  
Managing Editor

Assoc.Professor Marius Gavriletea, Ph.D.  
Babeş Bolyai University, Romania  
Managing Editor

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## WHY THE SLOW U.S. ECONOMIC GROWTH?

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Daniel Marsh, ABD, Southern Methodist University, USA

### ABSTRACT

*The slowness of the current U.S. economic expansion reflects the more progressive Federal taxation and transfer payment functions that have created disincentives for capital formation and new business formation. The combination of increasing transfer payments to households and higher tax rates leads to more demand for leisure, slowing the increase in labor supply. Likewise a more progression tax code discourages savings and encourages current consumption at the expense of future consumption.*

*Sixty percent of U.S. households receive more, on average, in the value of their transfer payments than they pay in terms of Federal taxes -- the combined Federal income tax, payroll tax and excise taxes, according to a Congressional Budget Office study. That leaves 40% of households effectively paying all net Federal taxes. In comparison, 30 years ago only 20% of households received more in the value of their transfer payments than what they paid in taxes, according to the CBO. Our argument is that the more progressive nature of the tax and spending functions during the last three decades reduced incentives for work, capital formation and business formation which has resulted in slower output growth.*

*Transfer payments have increased in inflation-adjusted terms by a factor of two to three over the past 30 years for all five household quintiles in this study. In the meantime, the Federal tax burden on the bottom 60% of households has declined after adjustment for inflation. This more progressive nature of the tax and transfer payment functions leads to an increasing demand for leisure and a slowing in the growth of labor supply.*

**Keywords:** *Slow Growth, Progressive Transfer Payments, Progressive Federal Taxation, Quintiles, Micro-Foundations, Supply Side, Labor Supply, Leisure*

### 1. INTRODUCTION

One of the more puzzling economic phenomena of the past few years has been the slow pace of the economic recovery in the U.S.A. from the 2007-2009 recession. Usually when an economy comes out of a recession, it will have several years of above average growth—a kind of “snap back”—as it returns to its long run growth path. The current economic recovery, by contrast, has been unusually weak—a “crawl back” rather than a snap back.

Data on real GDP in the U.S.A. confirm this. The most recent recession ended in June 2009, according to the NBER. In the 15 quarters from 2009-II up to 2013-I, real GDP increased by a total of 8.1 percent, from \$12,701 billion to \$13,726 billion. In contrast, in the 15 quarters following the recession ending in November 2001, real GDP rose 11.4 percent. In the 15 quarters after the recession ending in March 1991, real GDP increased 13.2 percent. And in the 15 quarters after the recession ending in November 1982, real GDP grew 21.2 percent.

The anemic nature of the most recent recovery can also be seen in employment statistics. Total non-farm employment in the U.S.A. peaked at 138.1 million in January, 2008. At the trough of the recession in June 2009, total employment fell to 130.6 million, a loss of about 7.5 million jobs. By June, 2013, total employment had crawled back to 135.9 million, an increase of about 5.3 million jobs from the trough, but still 2.2 million short of the pre-recession peak.

A number of theories have been advanced for why the current recovery has been so weak. Some analysts argue that the steep decline in housing prices beginning in 2006 caused net wealth to contract, leading households to reduce consumption spending. A related argument is that the loss in market value

of mortgage backed securities led to a financial crisis, harming consumer confidence, and similarly lowering spending. Others have argued that the fiscal stimulus undertaken to counteract the recession was too timid, or that monetary policy has been insufficiently aggressive. In contrast, some economists argue that government budget deficits saddle the economy with too much debt leading to expectations of sharply higher taxes. Others argue that excessive increases in the monetary base eroded central bank credibility and created large unknown costs resulting in slower growth in output.

In this paper, we argue that the exceptional slowness of the current recovery is due to a generally overlooked supply side aspect of fiscal policy. In an almost inadvertent way, U.S. federal income taxes and means-tested spending on entitlements have become significantly more progressive over recent decades. This increased progressivity of federal tax and spending functions has caused disincentives for work capital formation, and new business formation. President Obama's frequent calls for tax increases on the wealthy suggest fiscal policy is likely to become even more progressive in the future, further discouraging economic activity.

Paradoxically, much of the increased progressivity of the federal tax code came about when conservative Republican presidents were trying to lower high marginal income tax rates. To offset the regressive nature of these tax rate reductions, the U.S. Congress added in tax relief for lower income households in the form of basically exempting most in the lower half of the income distribution from paying any federal income tax at all.

## **2. MICRO-FOUNDATIONS OF THE SUPPLY SIDE EFFECT OF FISCAL POLICY**

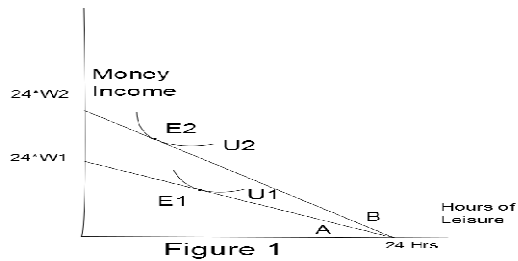
How does macroeconomic policy affect total output? The traditional Keynesian approach emphasizes aggregate demand. A change in fiscal policy either increases or decreases the total demand for goods and services, which then alters real GDP through a multiplier effect. Variations in aggregate demand are responsible for business cycles; aggregate supply is perfectly elastic in adjusting to aggregate demand.

Arthur Laffer, Paul Craig Roberts, and others proposed in the late 1970s that fiscal policy affects aggregate output through the supply side as well. If individual decisions about work effort, savings, and investment are affected by fiscal policy, then changes in policy will impact aggregate output directly, not just through aggregate demand. The standard argument about work effort and labor supply begins with the individual labor supply function. A worker supplies  $L$  hours of labor per period of time (per year, say).  $L$  is a function of the net wage rate  $w - t$ , where  $w$  is the gross wage rate in dollars per hour, and  $t$  is the tax rate. Or,  $L = L(w - t)$ .

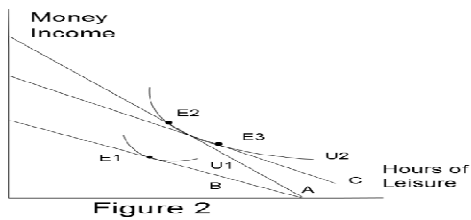
A well-known result based on utility maximization says that the sign of the first derivative  $dL/Dw$  is indeterminate. That is, we cannot say a priori if an increase in the net wage rate will increase individual labor supply or not. If the worker gets utility from both income and leisure, and if leisure is a normal good, then an increase in  $(w - t)$  creates both a substitution effect (a higher net wage rate increases labor supply) and an income effect (a higher wage rate leads to a greater demand for leisure, and hence a smaller labor supply).

However, what we are talking about in this case is not an increase or decrease in the net, after tax wage rate. Rather, the overall change in fiscal policy we are talking about is, in effect, an increase in the progressivity of the federal income tax and transfer programs, while keeping the change in total revenue neutral in its effect on the budget balance. The higher progressivity is like the substitution effect of a wage rate decrease, lowering labor supply. The revenue neutrality of the fiscal policy change is like an offsetting compensation to remove the income effect. Hence under these circumstances, the increase in progressivity should definitely lead to a decrease in work effort and labor supply.

Graphical analysis: Figure 1 shows the indeterminacy of a wage rate decrease on labor supply. The decrease in the wage rate from  $w_2$  to  $w_1$  shifts the budget constraint line inward from A to B. This shifts the equilibrium point from E2 to E1. Hours of leisure consumed is the other good, the good whose price has not changed. Therefore demand for leisure is indeterminate in  $w$ , depending on whether the income or the substitution effect is stronger. Hence labor supply  $L(w - t)$  is indeterminate in the net wage rate.



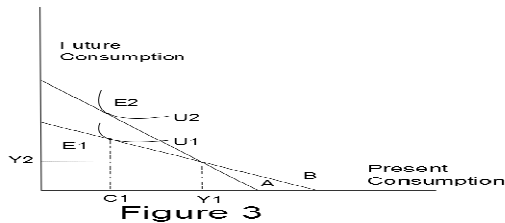
In contrast, in Figure 2, the increase in the progressivity of the combined tax and entitlement programs shifts the budget constraint line from Line A to Line C. Line C is compensated, relative to Line B. The equilibrium point shifts from E1 to E3, showing only the substitution effect. Demand for leisure rises unambiguously, hence supply of labor falls. Increasing the progressivity of fiscal policy reduces labor supply and hence total output falls.



A similar argument holds with respect to saving and investment behavior. In a two period model, the interest rate  $R$  is the relative price of current consumption compared to future consumption. If interest income is taxed, the net interest rate is the gross rate minus the tax rate. Again, if consumers have well behaved preferences over present versus future consumption, a simple increase in the tax rate on interest income will have an indeterminate effect on the savings rate. The substitution effect says the lower net interest rate makes current consumption cheaper relative to future consumption, decreasing savings. The income effect says a lower net interest rate reduces future income, leading to an increase in savings.

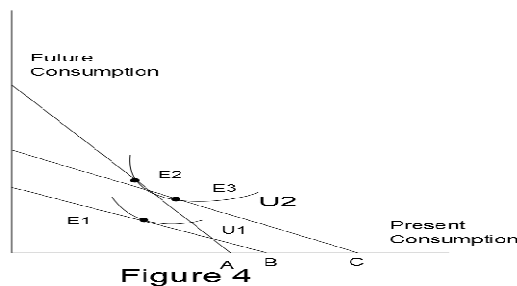
However, if what we are talking about is an increase in the progressivity of the tax and spending functions, with the effect of the budget being revenue neutral, then the income effect is compensated for, and disappears. Only the substitution effect remains, and it is determinate. More progressive tax and spending functions reduce the level of savings and hence reduce real output in the long run.

This can be demonstrated graphically. Figure 3 shows the effect of a simple increase in the tax rate on savings, the effect of which is indeterminate.



In Figure 3, budget line A has a slope of  $-(1 - R_1)$ , where  $R_1$  is the higher initial interest rate. Equilibrium is at E1, with current consumption  $C_1$  relative to initial period income  $Y_1$ . A tax rate increase on savings leads to budget line B, with slope  $-(1 - R_2)$ , where  $R_2 < R_1$ . Equilibrium with the tax is at E2. It is a standard result in utility theory that E2 may be either to the left of, or to the right of, E1, showing the change in savings from a higher tax rate on savings is indeterminate.

In Figure 4, however, the higher tax on savings is compensated for by giving a lump sum rebate to tax payers. This increases the progressivity of fiscal policy, while keeping it revenue neutral.



In Figure 4, budget line C shows the effect of the lump sum compensation of the tax payers. Equilibrium is at E3, showing that relative to the uncompensated tax increase, the compensated tax increase results in a definite increase in current consumption. Hence a more progressive fiscal policy toward saving and interest income, when it is revenue neutral, has the definite result of decreasing savings. In the long run, this result suggests less real output and a slower growth rate.

### 3. EVIDENCE ON THE INCREASING PROGRESSIVITY OF U.S. FISCAL POLICY

According to an OECD study the U.S. has the most progressive tax system of the 24 OECD countries. This was measured in terms of the share of taxes in the richest decile divided by the share of market income in that same decile. The next closest two were Australia and Netherlands. France, a country many associate with high tax rates, was 15<sup>th</sup> on the list. Switzerland was next to last in the 2008 study. Part of the answer to why the U.S. is the most progressive is that a sizeable number of lower income U.S. households don't pay much in Federal taxes. Also Western European countries may have a value-added tax and its incidence falls on households across the income spectrum.



The Congressional Budget Office provides data on Federal taxes paid by households and transfers received by households from 1979 to 2009. The CBO divided the 117.6 million households into five quintiles on the basis of income with approximately the same number of people in each quintile. Income quintiles were defined by ranking all people by their income adjusted for household size. Households in any particular quintile of income in one year may not be in that same quintile other years. Income is in 2009 dollars adjusted for inflation by the personal consumption price index.

After-tax income is the sum of market income and government transfers, less federal taxes. Market income consists of labor and business income, capital gains, other income from capital such as interest, dividends and rental income and other income such as defined benefits in retirement for past services.

Government transfers are defined by the CBO as transfers including: cash payments from Social Security, Supplemental Security income, Temporary Assistance for Needy Families, unemployment insurance, workers' compensation and state and local government cash assistance programs. Government transfers also incorporate the estimated value of in-kind benefits including: Medicaid, Medicare, food stamps, housing assistance and various other programs.

The CBO estimated tax liabilities are taxes owed by households based on income in a year, regardless of when taxes are paid. Federal tax liabilities are allocated by the CBO to households.

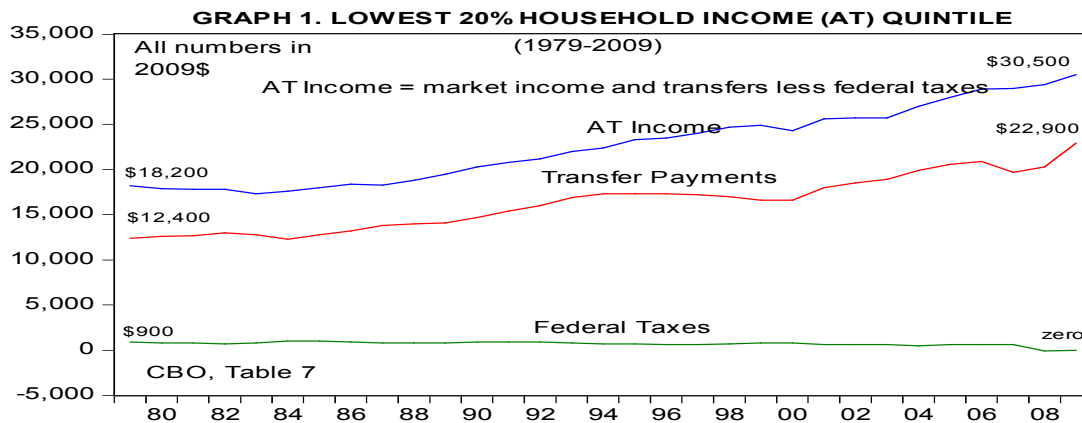
Individual income taxes are allocated to the households paying those taxes while the full amount of the payroll tax is also allocated to households since households pay it directly or indirectly through their employees. The full amount of the corporate income tax is allocated to households according to a CBO allocation of 75% share of capital and 25% on labor income. Consumption of the taxed good or service is used to allocate excise taxes.

#### 4. INCOME, TRANSFER AND TAX TRENDS

This section illustrates the behavior of after-tax income, government transfers and Federal taxes by quintile ranging from the lowest 20% income category to the highest 20% income group.

##### 4.1 Lowest Income Quintile

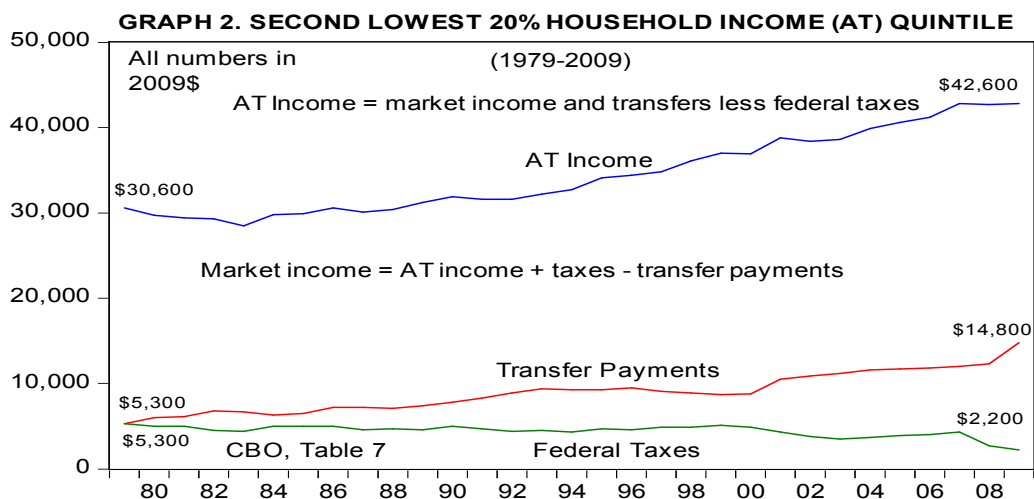
The basic point of the above micro-foundations theory is that the progressivity of fiscal policy likely reduces labor supply, retards saving and investment and slows real output growth which appears to be supported by the growing role of transfer payments. Households move into and out of quintiles over time, but at the margin growth in transfer payments may dull incentives of some to advance in terms of earned income. Transfer payments increasing by a factor of 1.8 in inflation-adjusted terms allowed for purchasing power in the lowest 20% quintile, Graph 1, to increase by a factor of 1.7 over a 30-year history. The burden of Federal taxes meanwhile declined. The impact of the recession on the after-tax income of this group appears to be minimal.



Meanwhile market income, which is equal to after-tax income plus Federal taxes, minus transfer payments only increased by a factor of 1.1. The rapid increase in transfer payments for this quintile compared to income may be a moral hazard issue as it likely leads households at the margin to alter behavior and minimize market income to qualify for or increase transfer payments. Some transfer payments such as Social Security and Medicare are age-determined and do not depend on income. The proportion of the population 65 and over during the 1979 to 2009 time increased approximately two percentage points according to the U.S. Census. This compares to 11.2 percent of households that were 65 or older in 1979. The elderly are likely to be found in all five quintiles but the majority may fall into the lowest three or four income groups but the numbers of elderly are unlikely to skew our findings as the elderly segment continually enters and exits quintiles and the percentage change in the proportion of elderly from 1979 to 2009 didn't change drastically.

#### 4.2 Second Lowest Income Quintile

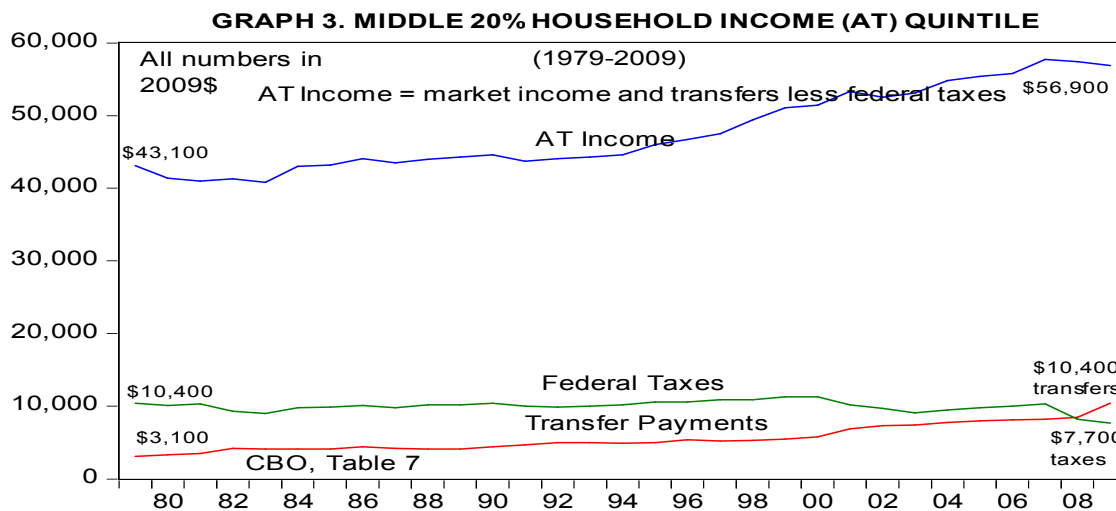
The after-tax income of this group, Graph 2, adjusted for inflation increased by a factor of 1.4 while transfer payments increased by a factor of 2.8. Federal taxes in 2009 are less than half of what they were in 1979 adjusted for inflation. Transfer payments increased substantially for this group in the recession while Federal taxes fell sharply. So clearly employment or lack of it substantially impacts this group as compared to the lowest income group. Market income for this group was essentially flat over the entire period adjusted for inflation, with the increase in purchasing power for this quintile depending on the increase in transfer payments and the smaller Federal tax bite.



#### 4.3 Middle Income Quintile

The after-tax income of this group adjusted for inflation increased by a factor of 1.3 while transfer payments increased by a factor of 3.4, Graph 3. Transfer payments, adjusted for inflation, increased more for this middle income segment than for the two lower segments. Perhaps part of this larger increase reflects the impact of the recession or it may be that transfer payments are broadening out to a much larger proportion of households compared to thirty years ago. Politicians may have an incentive to allocate transfer payments to a larger proportion of society.

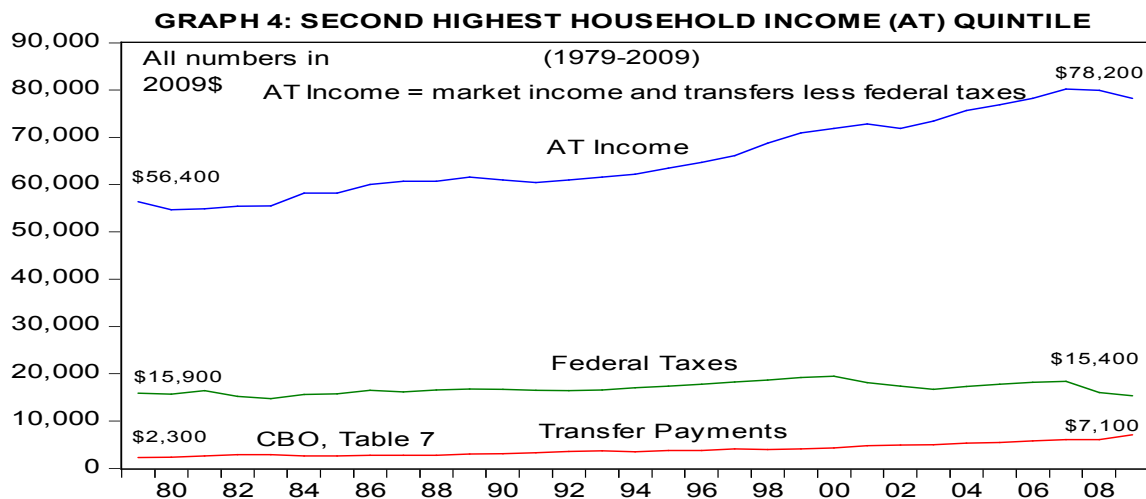
Federal taxes in 2009 are \$2700 less per household on average than they were in 1979 adjusted for inflation. Taxes and transfer payments in the last two years were impacted substantially for this group by the recession. Clearly employment or lack of it also substantially impacts this group. Market income for this group increased by a factor of nearly 1.1 over the entire period adjusted for inflation. AT income increased faster due to the real increase in transfer payments and the real decrease in Federal taxes.



#### 4.4 Second Highest Income Quintile

The after-tax income of this group adjusted for inflation increased by a factor of nearly 1.4 while transfer payments increased by a factor of 3.1, Graph 4. But the absolute level of transfer payments is lower, as expected, for this segment compared to the bottom three segments. Some proportion of the elderly is in this segment so that the increase in value of transfer payments reflects Social Security and Medicare payments. The size of the transfer payments going to this group doesn't appear to have been affected much by the recession compared to the three lower income groups suggesting that the transfer payments to this group are age-dependent.

Federal taxes in 2009 are approximately the same as they were in 1979 adjusted for inflation. Taxes and income in the last two years of this study were impacted substantially by the recession. Market income for this group increased by a factor of nearly 1.2 over the entire period adjusted for inflation. AT income increased slightly faster due to the real increase in transfer payments and flat Federal taxes.

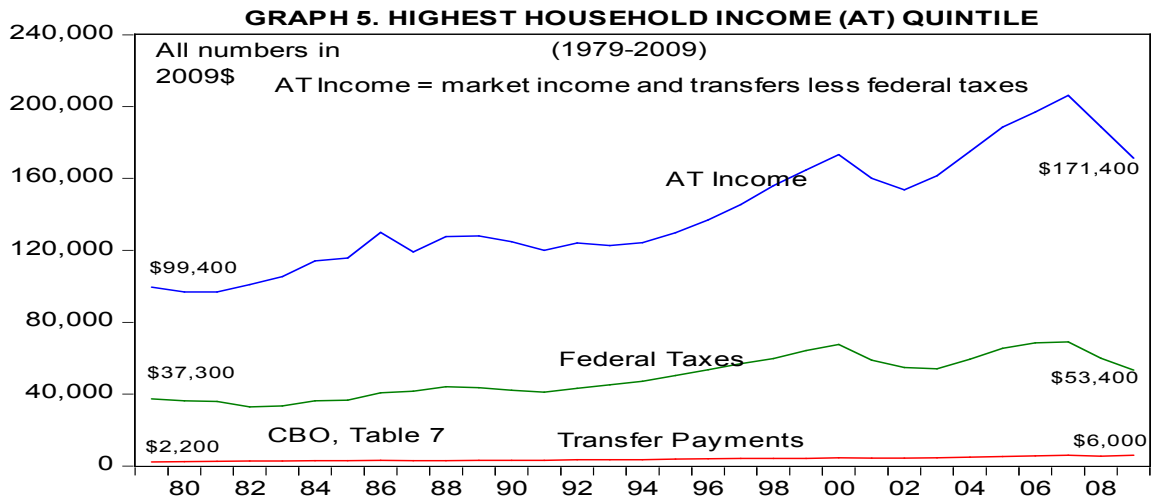


#### 4.5 Highest 20% Income Quintile

Income, after-tax, increased by an inflation-adjusted factor of 1.7 for the highest household income quintile while transfer payments increased by a factor of 2.7. This income increase was higher than the

middle three income groups but about the same as the lowest income group. The increase in transfer payments for this group is likely all age-dependent and is not means-tested.

Federal taxes paid increased by a factor of 1.4 over the last 30 years adjusted for inflation. This was the only group that had an increase in Federal taxes paid. Federal taxes paid either decreased or stayed the same for the other four quintiles. Taxes paid exceeded transfer payments by a factor of nearly 9 for this quintile. In comparison, taxes exceeded transfer payments by a factor of 2.2 for the second highest income quintile while transfer payments exceeded taxes paid for the other three groups.



## 5. SUMMARY

Progressive U.S. fiscal policies involving taxes and transfer payments have blunted incentives at the margin for capital formation, business formation and growth in the labor supply. Transfer payments have increased in inflation-adjusted terms by a factor of two to three over the past 30 years for all five household quintiles in this study. In the meantime, the Federal tax burden on the bottom 60% of households has declined after adjustment for inflation. This more progressive nature of the tax and transfer payment functions leads to an increasing demand for leisure and a slowing in the growth of the supply of labor.

Sixty percent of U.S. households receive more, on average, in the value of their transfer payments than they pay in terms of Federal taxes. That leaves 40% of households effectively paying all net Federal taxes. In comparison, 30 years ago only 20% of households received more in the value of their transfer payments than what they paid in taxes, according to the CBO, and 80% of households made a net positive contribution to Federal taxes. The percent of households that are elderly increased only two percentage points over that 30-year time.

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