

# Regimes of Realization: Using Marx and Kalecki to Understand the US Economy, Including the Great Recession and the “Recovery”

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## Abstract

By integrating selected Kaleckian and Marxian insights, this paper analyzes the sources of profit realization and the profit rate in the US economy from 1964–2013. The most significant sources of profit realization in the United States are capitalists’ consumption and workers’ debt, which historically have been under appreciated both theoretically and empirically. The insights gleaned by analyzing the sources of profit realization aid in understanding the Great Recession and the future of the US economy.

**JEL Classifications:** B51, E11

## Keywords

Marx, Kalecki, profit rates, profit realization, Great Recession

## 1. Introduction

The Great Recession is “universally recognized as the worst economic crash since the Great Depression” (Foster and Magdoff 2009: 11). Economic theories from across the spectrum of economic thought have provided explanations for the Great Recession. These explanations range from imputing it to exogenous events or government policy (either too much, too little, or merely misplaced) to finding the cause of the fundamental contradictions in capitalism. In contrast to neoclassical and Keynesian perspectives, Marxian explanations took the path of revealing the variety of structural contradictions that participated in the crisis. Specifically, Marxian crisis theories of the wage-induced profit squeeze, underconsumption, rising organic composition of capital, and stagnation theory were employed to explain the crisis. Along with these existing theories came newer Marxian critiques of financialization and neoliberalism. For many within Marxism, the Great Recession indicated a watershed moment that exposed beyond any doubt capitalism’s insurmountable contradictions and crushing vulnerabilities. Furthermore, many

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Marxists argued that capitalism would not be able to recover and reproduce itself, at least in its neoliberal form.

Despite dire predictions for the future of capitalism from various Marxian theorists, the US economy is in the midst of a long recovery. As the National Bureau of Economic Research (NBER) dating indicates, the economic recovery began in 2009 and continues into 2017. Perhaps the recovery is not as strong as most would like, but as of the end of 2014, the US unemployment rate had fallen to 5.6 percent, compared with 9.9 percent in June 2009.<sup>1</sup> During the sluggish initial stages of the recovery, investment in real terms grew 25 percent from 2009Q4 to 2013Q1. In addition, the recovery has exceeded the average recovery period of 38.7 months for the United States.<sup>2</sup>

Perhaps more surprising than the recovery itself is that it happened without any significant structural changes in the economy and without any significant income or investment policy changes in the United States. Financialization is relatively undaunted by reforms such as Dodd-Frank (see Pompa and Gainer 2013). Neoliberalism has survived the Great Recession. A central question, then, is how the “recovery” could occur with all the structural contradictions outlined in the Marxian crisis literature still firmly in place. This article attempts to answer this fundamental question and to provide critical insights into the future of the US economy based on the form of the recovery.

I begin with a brief review of some of the dominant Marxian approaches to understanding the Great Recession. The purpose of this review is twofold. One purpose is to take stock of the current Marxian views. The second purpose is to make theoretical space for some additional insights that help answer the primary question above. After this review, I outline the case for incorporating selected Kaleckian insights based on his theoretical engagements with Marxism. The article analyzes the sources of profit realization and the profit rate in the US economy from 1964 to 2013 to explain how the recovery happened in light of existing structural contradictions. Finally, the article discusses the future of the recovery and its implications.

## **2. Marxian Perspectives on the Great Recession**

Writing long before the Great Recession, Boddy and Crotty (1975) posited that during the expansion phase of the business cycle, workers’ wages could rise enough to begin to put downward pressure on firms’ profits, with the result being an eventual reduction in investment and an economic slowdown. While this is a minority view of the cause of the Great Recession, recent work by Cámara Izquierdo (2013) finds that rising real wages may indeed have contributed to the crisis. While his study is not focused solely on the Great Recession, he investigates ten business cycles from 1947 to 2011. Just prior to the economic expansion of 2007, Cámara Izquierdo finds “a substantial average annual increase of real wages” (469: n. 14). These increased wages led to lower profits that contributed to the recent crisis (470). However, he is quick to point out that for the latest cycle, the wage gains were more likely to be at the upper end of the income bracket.

Cámara Izquierdo concludes that the “offensive rising strength of labor” is responsible for “the most frequent type of cyclical crisis” including 2007 (470). This explanation appears inconsistent with the income experiences of many US workers over the last fifty years. Consequently, this view that the rising strength of labor is to blame for the crisis is in a very small minority of explanations of the crisis, Marxian or otherwise.

<sup>1</sup>Bureau of Labor Statistics seasonally adjusted unemployment rate ages 16+, Series Id LNS 14000000. Data.bsl.gov.

<sup>2</sup>This average covers 33 cycles in the U.S. from 1854–2009. [www.nber.org/cycles.html](http://www.nber.org/cycles.html) (accessed January 11, 2017).

More important to our focus here, however, is the fact that there has been no significant change in the distribution of income, especially of the most highly paid workers, which would have released downward pressure on profits. Of the S&P 500 companies, the median total direct compensation of CEOs has risen from 2009 through 2014 (see Bout 2015). Therefore, it is not clear from this perspective why a recovery should happen with incomes rising for the top employees.

In contrast, Florio (2011–2012) represents a classical underconsumptionist view of the crisis. He theorizes that its roots were in an unstable distribution of income between labor and capital and a growing income gap between advanced countries and the rest of the world (p. 5). Like many other theorists, he views the period from the late 1970s to the early 1980s as a key period of inflection from a stable to an unstable distribution of income. Specifically, he sees that a “pact” consisting of constant labor and capital shares was broken in the 1980s in favor of capital shares (p. 12). Rising debt allowed effective demand to grow, and he supports this view of debt by providing data on personal savings as a percentage of income in the United States, a percentage that peaked in 1982 (p. 18). Not surprisingly, Florio suggests that redistributions of income among countries and between capital and labor are needed to provide stable growth (p. 27).

Explaining the recovery from this perspective is also difficult, however, given that no significant change occurred in wages of typical workers. Data indicate that hourly compensation was flat from 1973 to 2013 (see Mishel, Gould, and Bivens 2015: Table 2). How can stagnant wages both cause the crisis and remain during the recovery? This remains an important question.

While Cámara Izquierdo’s and Florio’s studies are directed toward understanding the dynamics of business cycles, most Marxian approaches to the Great Recession take a longer view. Andrew Kliman (2010) argues that:

U.S. corporations’ rates of profit declined after the mid-1950s and continued to fall or failed to rebound after recessions of the mid-1970s and early 1980s; that no new boom followed these recessions because... the amount of capital value that was destroyed was insufficient to restore profitability and a healthy rate of investment; that the persistent fall in profitability led to sluggish investment, slow economic growth, and a long-term explosion of debt; that the buildup of debt has led to repeated bubbles and the bursting of these bubbles; and that the latest crisis and economic slump are the consequence.

Kliman is not alone in placing the primary fault for the recession on this explanation of falling profits. Giacché (2011), Maniatis (2012), and Ivanova (2012) cite over-accumulation as the root cause of the Great Recession. Perhaps over-accumulation did participate in the crisis, but investment was reasonably strong during the recovery as well. Specifically, while investment growth after the crisis was slower than in the period preceding the crisis, it grew at an annual rate of 6.75 percent from 2010 to 2013.<sup>3</sup> This growth in investment would seem out of place in the recovery phase of an over-accumulation crisis with insufficient capital destruction during the crisis.

In the clearest of terms, Duménil and Lévy (2011) differentiate themselves from the falling-profit perspectives discussed above and from the underconsumptionist theories. They write: “There is no synthetic technical explanation of the crisis. It was not the effect of deficient profit rates. It was also not the consequence of a lack of demand, the expression of the insufficient purchasing power of wages. If an overarching explanation must be sought, it lies in the objectives of neoliberalism, the tools used in their pursuit, and the contradictions inherent in these aims and methods” (Duménil and Lévy 2011: 33–34).

Contrary to theories that capitalists were too weak, profits too small, or consumption too low, “the causes of the crisis can... be described in terms of ‘excess.’ Too much financialization meant

<sup>3</sup>Author’s calculations based on data from the Federal Flow of Funds accounts.

a fragile financial structure, and too much globalization, an uncontrollable world economy” (Duménil and Lévy 2011: 37). Duménil and Lévy recognize that crises due to insufficient profitability are possible, and they understand the crises of the 1890s and the 1970s as such. However, they view the Great Depression and the Great Recession as “consequences of the exercise of hegemony, class and international hegemonies, the boundless expansion of the demands of the upper class that pushed economic mechanism to and, finally, beyond the frontier of sustainability” (Duménil and Lévy 2011: 21).

Harvey (2010), like Duménil and Lévy, sees neoliberalism and the accompanying financialization as emerging out of the profit crisis of the 1970s, but unlike Duménil and Lévy, he sees real sector profitability as a problem again in the 1990s and asserts that this is what pushed more money into the financial sector: “Profits began to fall after 1990 or so in spite of an abundance of low-wage labour. Low wages and low profits are a peculiar combination. As a result, more money went into speculation on asset values because that is where profits were to be had. Why invest in low-profit production...?” (Harvey 2010: 29).

Harvey admits that various other forms of crisis are possible (i.e., wage-led profit squeeze, rising organic composition of capital, or underconsumption), but, as for the Great Recession:

while the epicenter lies in the technologies and organizational forms of the credit system and the state-finance nexus, the underlying problem is excessive capitalist empowerment vis-à-vis labour and consequent wage repression, leading to problems of effective demand papered over by a credit-fuelled consumerism of excess in one part of the world and a too rapid expansion of production in new product lines in another. (Harvey 2010: 118)

A somewhat different take on the issues of neoliberalism and financialization emerges from Kotz (2008). He says that financialization had wide capitalist class support, and thus could come into existence within the thriving neoliberal environment that prevailed (p. 13). Neoliberal capitalism in the United States emerged out of the crisis that ended a period of regulated capitalism in the late 1970s (Kotz 2009: 306). Neoliberalism represented a new regime of accumulation, and once it took hold, it contributed to three main developments in both the financial sector and the real sector: growing inequality, a financial sector involved in highly speculative activities, and the emergence of asset bubbles (p. 307). Neoliberal policies kept wages low but allowed consumption to remain strong due to the rise in consumer debt and rising home values, which in turn enabled workers to borrow increasingly large sums against their homes. Consequently, when the housing bubble burst, it set off not only a financial crisis but also a real sector recession. As housing wealth declined, so did consumer spending and future rounds of investment (p. 315).

Beyond differences concerning the connections between neoliberalism, financialization, and the immediate causes of the crisis, Duménil and Lévy, Harvey, and Kotz also have different views on a postcrisis US economy. Kotz is the most optimistic that the Great Recession will usher in significant changes: “We are witnessing a crisis of the neoliberal form of capitalism. The ability of that form of capitalism to promote expansion of output and profits appears to have reached its end” (p. 315). Furthermore, “[T]he social structure of accumulation perspective argues that, when a particular form of capitalism enters its critical phase, this eventually gives rise either to a new form of capitalism or to a transition beyond capitalism” (p. 316).

While Duménil and Lévy consider a quick reversal of neoliberal policies unlikely, they conclude “that the chances of neoliberalism are limited... The objectives of neoliberalism are incompatible with the maintenance of U.S. hegemony... They are also at odds with the correction of the U.S. macro trajectory” (Duménil and Lévy 2011: 327). Thus, economic progress depends on a significant transformation away from neoliberalism. Harvey is the most pessimistic of the three regarding the likelihood of change. He asks himself, “Can capitalism survive the present trauma?” And replies, “Yes, of course” (Harvey 2010: 215). It can survive by extracting a high cost from

workers' asset values, and by extracting even more surplus labor, reducing standards of living for workers, and further deteriorating the environment (Harvey 2010: 216).

The most obvious question confronting theories that identify financialization and/or neoliberalism as the source of the crisis is this: how can this explanation of the recovery be valid, given that financialization and neoliberalism proceed unabated? It appears that Harvey is correct in his conclusion that capitalism can survive the Great Recession. He may also be correct in pointing to even higher levels of exploitation as the key. But another question then arises: Are these potential sources of recovery in fact responsible for the recovery, or is something else facilitating the recovery? More generally, what conditions exist in the aftermath of the Great Recession that promote a recovery despite the ever-present neoliberal and overfinancialized climate that enabled the crisis?

The final Marxian perspective to be considered here is the view of Foster and Magdoff (2009), who build their perspective from the works of Kalecki, Steindl, Baran, and Sweezy (Foster and Magdoff 2009: 66). Their work focuses on the environment faced by mature capitalist economies. This environment involves basic maintenance of existing industries; long durations of low technical innovation; growing inequality, which slows the growth in aggregate demand; and existence of monopoly industries. All of these factors contribute to low investment and stagnation in the economy (Foster and Magdoff 2009: 102). In such an environment, "[T]he pivotal issue for monopoly capital was to find additional outlets for surplus, beyond capitalist consumption and investment, that would serve to keep the system from sinking into an economic malaise" (p. 65). Debt and financialization provided the outlets for the surplus that contributed to the housing bubble that ultimately set off the crisis. But what outlets are absorbing the surplus during the recovery? Housing, which has been slow to recover, is clearly not the answer.

While the preceding discussion of Marxian crisis literature admittedly does not include every contribution, it does cover a large territory. The disconcerting aspect of these Marxian perspectives on the Great Recession is that the United States has experienced an initial recovery with nearly all of the crisis-inducing factors and structures still firmly in place. From a Marxian theoretical point of view, the recovery should be unlikely. Yet a recovery happened quickly enough to maintain the status quo. Specifically, the recovery began without a noteworthy devaluation of capital, a significant redistribution of income, a demolition of neoliberal policies, a thunderous retreat from financialization, a "new New Deal," or something resembling socialism. In contrast to the Great Recession, the Great Depression ushered in considerable legislative reforms on business, government spending on jobs programs that aided the distribution of income, and military spending that promoted investment. Nothing comparable in terms of scale or duration happened after the Great Recession.

What is missing from the Marxian analysis of crisis generally and from the analysis of the Great Recession specifically? One criticism of Marxian crisis theory generally comes from James Crotty (1985). He writes:

From his analysis of capitalist production Marx develops the familiar tendencies of the rate of profit to alternately rise and fall over time, tendencies that help generate the unstable growth pattern characteristic of capitalist economies. This analysis is fundamentally incomplete, however, because the conditions in the sphere of circulation in any era codetermine the vigor of accumulation, the degree and character of the vulnerability of accumulation to adverse financial and nonfinancial developments, the timing of the onset of the crisis, and the depth and duration of contraction. Indeed, in the absence of an analysis of circulation it is not clear why a fall in the rate of profit should lead to a crisis at all; a lower but positive rate of growth is a more logical outcome of a decline in the profit rate taking only production relations into consideration. Marx's views on accumulation and crisis are neither complete nor compelling unless understood as the unity of circulation and production. (Crotty 1985: 48)

**Table 1.** Kalecki's Gross National Product.

Gross profits	Gross investment
Net of (direct) taxes	
Wages of salaries	Export surplus
Net of (direct) taxes	
Taxes (direct and indirect)	Government expenditure on goods and services
	Capitalists' consumption
	Workers' consumption
Gross national product	Gross national product

Kalecki (1954: 48).

### 3. Kaleckian Profit Flows

Crotty is not alone in his critique of Marxian crisis theory. Michał Kalecki's critique of the relative neglect of circulation in Marx's work is similar to Crotty's. Kalecki argues that Marx "did not systematically scrutinize the process described by his reproduction schemes from the point of view of the contradictions inherent in capitalism as a result of the problem of effective demand" (Kalecki 1991: 465).

But unlike Keynes, Kalecki sought to understand effective demand problems within the context of the Marxian reproduction schemes. Furthermore, this was not an inconsequential or short-lived intellectual exercise for Kalecki. It forms the basis of his theory of profits in his book *Theory of Economic Dynamics: An Essay on Cyclical and Long-Run Changes in Capitalist Economy* (Kalecki 1954). Issues of integrating an analysis of circulation into the Marxian perspective were on his mind up to his death in 1970, as is evident in "The Problem of Effective Demand with Tugan-Baranovsky and Rosa Luxemburg" and "The Marxian Equations of Reproduction and Modern Economics" available in his *Collected Works* (Kalecki 1991). In these three publications, it is clear that Kalecki found value in maintaining Marx's class-based, surplus approach toward understanding profits.

The next question is how Kalecki's approach, based on the abstractions of Marx's reproduction schemes, can inform the Great Recession. Some of the connections between Marx, Kalecki, and the Great Recession are already established in the work of Foster and Magdoff (2009). They were certainly attuned theoretically to profit realization difficulties. They asked the key question, namely, what were the outlets for the surplus? Yet Foster and Magdoff never captured or measured all the specific sources of profit realization. One can, however, pick up where Foster and Magdoff left off. Fortunately, Kalecki used the insights of the Marxian reproduction schemes and the circulation conditions of profitability, and applied them to national accounting conventions. Kalecki used a very simplified balance sheet of the gross national product (see Table 1) as the basis of his approach and by rearranging the terms, Kalecki produced his famous profit equation (1954: 49):

$$\begin{aligned} \text{Gross profits net of taxes} = & \text{Gross investment} + \text{Export surplus} + \text{Budget deficit} - \\ & \text{Workers' saving} + \text{Capitalist consumption.} \end{aligned} \quad (1)$$

Even though this profit identity is frequently cited, I argue that its significance is often overlooked. As it is based on Marx's production scheme theory, which is in turn based on the labor theory of value and labor exploitation, it is mindful of the fundamental aspects of Marxism. But it is also the product of Kalecki's own work in attempting to integrate aspects of circulation and realization into Marxism. And finally, the equation lends itself to the empirical measurement of profits and its components.<sup>4</sup>

<sup>4</sup>The argument is not that this equation incorporates all that is important from Marx, Kalecki, Keynes, Minsky, and the empirical measurement of profits. All that is asserted is that this equation is an important touchstone for a variety of theoretical and empirical traditions.

Unfortunately, there have been very few attempts to measure Kaleckian profit flows for the United States, and no estimates cover a significant portion of the postcrisis era.<sup>5</sup> Part of the reason for this is that, until recently, there was no published method to estimate total Kaleckian profit flows and all the various component contributions for the US economy. Brennan (2014) developed such a method, building, as did Kalecki, from national income and expense tables, and provided estimates for profits and all the sources of realization from 1964 to 2009. Here, that series is extended into the recovery years.

Kalecki derived his profit identity from simplified national income and expense accounts, and one can do the same with modern national accounts. Specifically, by rearranging the various expenses from the Distribution of Gross Domestic Product accounts (i.e., the expense approach) and the sources of income from the Distribution of National Income accounts (i.e., the income approach), one can arrive at a modern profit identity that is in keeping with Kalecki's original profit identity.<sup>6</sup> Using the expense and income categories established by the Bureau of Economic Analysis, we arrive at the following<sup>7</sup>:

$$\begin{aligned} \text{Profits} = & \textit{Personal consumption expenditures} - \textit{Compensation of employees} + \\ & \textit{Gross private domestic investment} + \textit{Net U.S. exports of goods and services} + \\ & \textit{Government consumption expenditures and gross investment} - \textit{Taxes on production and} \\ & \textit{imports} + \textit{Subsidies} - \textit{Taxes on corporate income} - \textit{Current surplus of government} \\ & \textit{enterprises} - \textit{Government consumption of fixed capital} - \textit{Statistical discrepancy} + \textit{Net} \\ & \textit{U.S. income receipts from rest of the world} - \textit{Business current transfer payments (net)} \end{aligned} \quad (2)$$

To better see how this modern equation represents Kalecki's original equation, we should explore each term. For Kalecki, gross investment meant private investment, while public investment was included in government expenditure (p. 48).

Therefore:

$$\text{Gross investment} = \textit{Gross private domestic investment} \quad (3)$$

Kalecki's export surplus is the trade deficit or surplus of goods and services:

$$\text{Export surplus} = \textit{Net US exports of goods and services} \quad (4)$$

Kalecki's budget deficit refers to government's total revenues from taxes and other sources minus all distributions, net of depreciation. This includes all federal, state, and local revenues and expenses:

$$\begin{aligned} \text{Budget deficit} = & \textit{Government consumption expenditures and gross investment} - \\ & \textit{Taxes on production and imports} + \textit{Subsidies} - \textit{Taxes on corporate income} - \textit{Current} \\ & \textit{surplus of government enterprises} - \textit{Government consumption of fixed capital} \end{aligned} \quad (5)$$

Clearly, reproducing the categories of gross investment, export surplus, and government deficits based on existing accounts is a straightforward process. The categories of capitalists'

<sup>5</sup>Toporowski (1999) considers contributors to profit realization relative to GDP, which gets at the relative role of investment, government deficit spending, and trade balances, but he does not calculate total profits for the United States.

<sup>6</sup>Categories from the actually existing accounts available from the Bureau of Economic Analysis and the Bureau of Labor Statistics are in italics.

<sup>7</sup>For the complete step-by-step derivation of this identity from Tables 1 and 2 of the Bureau of Economic Analysis, see Brennan (2014).

consumption and workers' savings are more difficult to reproduce, because consumption and savings data are not broken down into classes. Hence, one cannot glean data for either of these categories from existing national accounts. We know, however, that if we divide the US economy into workers and capitalists, as Kalecki did, then:

$$\text{Total consumption} = \text{Capitalists' consumption} + \text{Workers' consumption} \quad (6)$$

$$\text{Workers' income} = \text{Workers' consumption} + \text{Workers' savings} \quad (7)$$

Therefore:

$$\text{Capitalists' consumption} - \text{Workers' savings} = \text{Total consumption} - \text{Workers' income} \quad (8)$$

The modern accounting categories available from the Bureau of Economic Analysis that best reflect the sum of capitalists' consumption – workers' savings are:

$$\text{Capitalists' consumption} - \text{workers' savings} = \text{Personal consumption expenditures} - \text{Compensation of employees} \quad (9a)$$

Equation 9a maintains the profit identity, and thus its use can be justified. However, perhaps such a representation loses some of the class distributional aspects that Kalecki and Marx were trying to capture. The modern concept of profit deducts the wage and salary expenses of all employees and includes payments for wages and salaries to assembly line workers and CEOs alike. Kalecki, like Marx, maintained that capitalists, supervisors, and managers were paid out of the existing surplus. To capture this class aspect, I suggest that instead of deducting the compensation of all employees, one deduct the compensation of production and nonsupervisory workers only. Then we have

$$\text{Capitalists' consumption} - \text{workers' savings} = \text{Personal consumption expenditures} - \text{Compensation of production and nonsupervisory labor}^8 \quad (9b)$$

By understanding capitalists' consumption in this way, one measures the consumption of unproductive labor such as all top management and also the consumption of managers and supervisors.

This then leaves a remainder from the national accounts:

$$\text{Remainder} = -\text{Statistical discrepancy} + \text{Net US income receipts from rest of the world} - \text{Business current transfer payments (net)} \quad (10)$$

Using the definitions above for gross investment, export surplus, government deficit, capitalists' consumption – workers' savings (from equation 9b), and a remainder, we arrive at a modern presentation of Kaleckian profit flows based on categories currently found in modern national accounts:

$$\text{Kaleckian Profits} = \text{Gross investment} + \text{Export surplus} + \text{Government budget deficit} + (\text{Capitalists' consumption} - \text{Workers' savings}) + \text{Remainder} \quad (11)$$

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<sup>8</sup>There is no method to empirically distinguish capitalists' consumption from other consumption or workers' debt from other personal debt. Therefore, these must be combined. However, this is not as inconvenient as it might first appear, because capitalists, as individuals, must either consume or save their income. That which is not consumed is saved and becomes the funds available for workers to borrow. Of course, capitalists can borrow from other capitalists to consume, but that is an intra-class transfer from one capitalist to another and is captured in total capitalist class consumption.

**Table 2.** Key Annual Growth Rates.

	Pre-neoliberal	Neoliberal	Crisis	Recovery
	1964Q1–1980Q1	1980Q1–2006Q1	2006Q1–2010Q1	2010Q1–2013Q1
Total profits	4.32%	10.45%	0.02%	2.86%
Profit rates	−0.78%	0.92%	−0.69%	0.95%
S/V	1.45%	3.99%	0.02%	0.31%
C/V	2.96%	3.94%	0.87%	−0.76%
Investment	4.96%	10.25%	−8.93%	6.75%
V	2.83%	6.22%	0.00%	2.53%
Capitalists' consumption and Workers' savings	4.73%	12.15%	0.24%	2.33%

**Table 3.** Key Percentages of Profits.

	Pre-neoliberal	Neoliberal	Crisis	Recovery
	1964Q1–1980Q1	1980Q1–2006Q1	2006Q1–2010Q1	2010Q1–2013Q1
(Capitalists' consumption and Workers' savings)/ profits	51.42%	61.98%	67.19%	67.77%
Investment/profits	29.29%	26.72%	23.38%	20.25%
Gov. deficit/profits	18.65%	15.59%	15.37%	15.59%

Using data available from the Federal Flow of Funds and the Bureau of Labor Statistics, we have Figure 1 of US profits and the expenses responsible for realization.<sup>9</sup>

Because Kaleckian profits equal the total surplus in the economy, and the value of the wage bill to productive labor along with the value of the capital stock, the Marxian rate of profit  $(S/V) / ((C/V) + 1)$  can be calculated.<sup>10</sup>

We can then use the data contained in Figures 1, 2, and 3 and Tables 2 and 3 to analyze the US economy before, during, and after the Great Recession.

<sup>9</sup>Data from the Federal Flow of Funds accounts were gleaned from <http://www.federalreserve.gov/releases/z1/Current/data.htm>, September 25, 2013 release. Data on wages and the number of employed production and nonsupervisory workers were gathered from <http://data.bls.gov/pdq/querytool.jsp?survey=ce>. Total wages paid to production and nonsupervisory labor were calculated by taking the total number of workers employed each quarter (Series ID CES0500000006) and multiplying by 4 to get the annualized quarterly total. That total number of production and nonsupervisory workers was multiplied by the average wage of workers in those occupations (Series ID CES05000000030). All remaining data are likewise annualized quarterly data, and are seasonally adjusted. The data have been converted to real values by using the implicit chained-type price deflator for GDP with 2009 as the base available from the Bureau of Economic Analysis, Table 1.1.9 Implicit Price Deflators for Gross Domestic Product.

<sup>10</sup> $S$  = surplus value,  $V$  = value paid to productive labor, and  $C$  = value of the constant capital. Data on the capital stock are from the BLS Table 4.1 Current-Cost Net Stock of Private Nonresidential Fixed Assets by Industry Group and Legal Form of Organization. This data set is suggested by Maniatis (2012) to estimate the value of the capital stock. The data are annual, and I use linear extrapolation to arrive at quarterly estimates.

### 3.1. Pre-neoliberal (1964–1980)

During this period, investment grew at almost 5 percent per year, and the wage bill to productive labor grew at approximately 3 percent. The average annual growth rate of total macroeconomic profits was 4.32 percent during this period, with a consistent upward trend.<sup>11</sup> Furthermore, there was no crisis of total profit flows to punctuate the end of this period. These data suggest that the transition to a neoliberal regime was not necessitated by a crisis in *total* profits. This may strike some as a surprising finding, given that many Marxian authors discuss profitability difficulties toward the end of the 1970s. However, it is important to note that the above presentation of total profits places managerial and supervisory income into the pool of profits along with other expenses. While both Marx and Kalecki understood profits in this way, many Marxian estimates of profits use a much narrower definition.<sup>12</sup>

In terms of circulation, the primary source of realization was capitalists' consumption minus workers' savings, more easily understood as capitalists' consumption and workers' debt. This made up just over 50 percent of expenditures responsible for realization. Furthermore, there was a gradual rise in this percentage of profits from 51 percent in 1964Q1 to 55 percent in 1980Q1. Investment accounted for only approximately 30 percent of profits. Like capitalists' consumption and workers' debt, investment's share of profits crept upward from 28 percent in 1964Q1 to 32 percent in 1980Q1. The trade surplus was an insignificant contributor to profits during this period, as it hovered around zero. This left the government fiscal deficit to make up the rest. In 1964Q1, it accounted for 18 percent of profits; in 1980Q1, it was 17 percent. But there were periods where government deficit spending accounted for a higher share of profits, as in 1967Q1 when it reached 22 percent.

It is important to appreciate that although the period from 1964 to 1980 might be understood as the fading years of a Golden Age of capitalism, investment, even then, was never the primary driver of profit realization. Investment's share peaked in 1979 at 33 percent of profits. The primary driver then was capitalists' consumption. This is especially true with individual savings rates hitting a peak around this time of approximately 9 percent (Florio 2011–2012: 18, Figure 8). (Remember that workers' savings discourage profit realization.) Clearly, what allowed such high levels of capitalists' consumption was a distribution of income that was moving in favor of capitalists (and other unproductive labor), even before the neoliberal era began. Another interesting aspect of the pre-neoliberal period is the large role government deficits played in supporting profits. In some quarters, government deficit spending supported profits almost as much as private investment.

In contrast to total profits, the picture regarding profit rates is very different. While total profit flows rose by 4 percent annually, the profit rate declined slightly, with  $-0.78$  percent annual average growth. While the decline on an annual basis is small, this is a sixteen-year period of declining profit rates. Despite the declining profit rate, investment grew at 5 percent annually and total payments to productive labor increased by 2.8 percent annually. Why would accumulation and the hiring of productive labor occur at such rates with declining profit rates? The answer may be the high profit flows of 4.3 percent per year, which allowed for income flows that could accommodate higher investment and hiring of productive labor.

<sup>11</sup>All growth rates are in terms of geometric annual growth.

<sup>12</sup>An excellent example of this is Basu and Vasudevan (2013). While they provide a variety of methodologies to estimate Marxian profit rates, they "do not take account of the fact that a large part of what is reported as compensation of employees is part of profit income, because it is part of managerial and other non-working class incomes" (65, n. 11). The emphasis in this article regarding the surplus rather than net profits is to differently capture the class aspects and to keep with the spirit of the approaches of both Marx and Kalecki. Of course, this does not mean that an analysis of net profits is not equally valuable, and I encourage the reader to see Basu and Vasudevan (2013) for an analysis of net profits.

What is also revealed in this period is the important difference that profit rates and profit flows play in the economy. While the declining profits rates did lead to a general slowdown in economic activity, there was no immediate crisis of the type experienced in the Great Recession. As we will see, a crisis like the Great Recession concerns the abrupt disruption of money and profit circulation. Declining profit rates alone bring about reduced economic growth.

### 3.2. Neoliberal Period (1980–2006)

Of course, capitalism needed to address the issue of falling profit rates eventually, and the burden to improve these rates fell on the productive workers. While the productive wage bill rose 6 percent annually during this period, the rate of growth of exploitation more than doubled over the previous period. Specifically,  $S/V$  grew at 1.5 percent annually in the pre-neoliberal period and at 4 percent in this period. Hence, neoliberalism had a significant effect on productive labor, as many Marxian theorists duly note. Yet despite this successful effort to extract more surplus from the labor, profit rates did not change very much, growing at only 1 percent annually. What, then, was happening during this period?

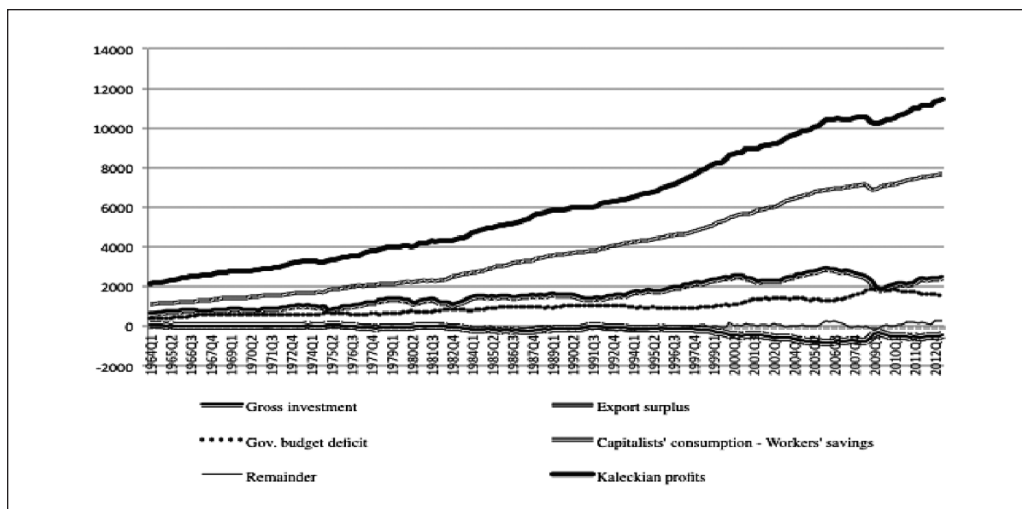
Beyond fighting labor, this period also manifested a shifting distribution of income toward those who received distributions from the surplus (capitalists and other unproductive labor) and a rise in workers' debt. While distinguishing the effect of the shifting distribution from the rise in debt is difficult given the constraints of the data, there is significant evidence that both occurred. Dew-Becker and Gordon (2005: 115) find that income gain of the top income earners occurred at the expense of the median workers. The most startling evidence they find is that 45 percent of growth in real labor income from 1966 to 2001 went to the top 99.99th percentile, and they "infer that more than half of the 99.99th percentile consists of CEO[s] or other highly paid top executives" (Brennan 2014: 250).

With respect to rising debt levels, one need only look at mortgage debt levels, which funded much worker consumption (Kotz 2009). According to Brennan (2014: 252), from 1952 to 1982, the growth rate of mortgages was 5.9 percent, a \$48.8 billion annual increase in 2005 dollars. From 1982 to 2006, the rate was 6.8 percent, and there was an annual increase of \$318.6 billion. Harvey (2010), Kotz (2009), and Wolff (2010) also discuss the dramatic rise in debt.

The rise in capitalists' consumption and workers' debt was 12 percent annually, culminating in 62 percent of profits. This consumption and debt, as sources of realization, dramatically increased total profit growth rates to 10.5 percent on a yearly basis. This suggests that neoliberalism and the accompanying financialization were mainly about *both* increasing exploitation in the production sphere and increasing the realization of that labor-produced surplus. To increase only circulation or realization without an accompanying increase in the real surplus to be realized eventually causes inflation. However, 1980–2006 largely avoided high inflation by having increased rates of exploitation over the preceding period. This increase in exploitation and realization created high profit flows and improved rates of profits over the previous period. There was one important caveat to the low inflation story, however. The housing market began to experience inflation beginning in earnest in the early 2000s.

### 3.3. Crisis (2006–2010)

While many non-Marxian perspectives blame the financial and housing sector meltdown for the Great Recession, they are only partially correct in naming the immediate cause of the crisis. In the view presented here, the housing market implosion, which gave rise to further financial sector difficulties, disrupted the realization of profits, as is evident in Figure 1. There is a clear decline in realized profits of approximately \$360 billion 2009 dollars from 2008Q3 to 2009Q1. Two sources of realization were particularly hard hit. The most influential by far was capitalists'

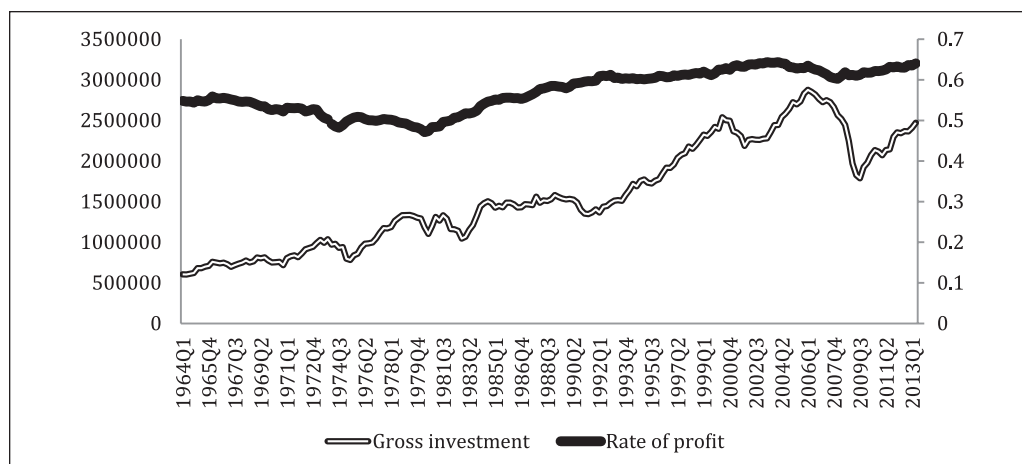


**Figure 1.** Kaleckian Profits and Components of Realization for the United States.

consumption and workers' debt, which had the unprecedented experience of falling for three consecutive quarters in 2008Q3, 2008Q4, and 2009Q1. While this may initially seem insignificant, there have been no episodes of even two consecutive quarterly declines in this variable for at least the last fifty years. Perhaps it last happened during the Great Depression; perhaps it has never happened in the United States prior to the Great Recession. The other important source of realization was investment, which fell dramatically in 2006, 2007, and 2008. Without any doubt, the disruption in credit and financial markets caused the immediate crisis. In this sense, the Great Recession was a realization crisis.

Yet the analysis of the crisis would be incomplete if it were merely viewed as a disruption in profit realization. The Marxian profit rate peaked in 2004Q1 at 64 percent. In contrast to the preliberal period, firms did not continue to invest with declining profit rates for sixteen years. Rather, investment peaked in 2006Q1 and was in a significant decline until 2009Q2. This is due partly to credit rationing, but it is also due to the fact that firms found it less profitable to invest after 2004 than before. In short, the real conditions of production were no longer yielding ever-higher exploitation rates. However, as a result of continued impressive profit flows, the difficult economic situation emerging during 2004 was largely unnoticed. Total profits peaked in 2008Q3, despite the declining contribution of investment to realization at that time. As one might expect, it was a shifting distribution of income and increased debt that picked up most of the slack regarding profit realization. During this period, capitalists' consumption and workers' debt accounted for a massive 67 percent of profit flows. There was also a noteworthy uptick in government deficit spending. Profit, accumulation, and exploitation rates ran out of momentum just before and during the time of the crisis. Specifically, from 2006Q1 to 2010Q1, on an annual basis, profit rates grew at  $-0.7$  percent, investment grew at  $-9$  percent, and the rate of exploitation grew at  $0.02$  percent. Yes, US capitalism had experienced similar negative growth of the profit rate in the recession of 1980, but the significant difference here was the very low profit growth rates *and* the low growth of total profits during this period. It was the significant dip in total profit flows coupled with the low rates of profit, accumulation, and exploitation that formed the Great Recession.

The reason for the timing of the housing bust now also becomes clearer. The rate of exploitation up to that time peaked during 2006Q1. Yet profit flows continued to rise until 2008Q3. Therefore, the financial sector was essentially trying to realize profit gains that were not there in



**Figure 2.** Marxian Rate of Profit and Gross Investment.

real production. This is one reason why the housing boom could not continue much past the end of 2005. While the crisis was indeed precipitated by the housing collapse, the collapse was brought on by difficulties of both profit production and realization.

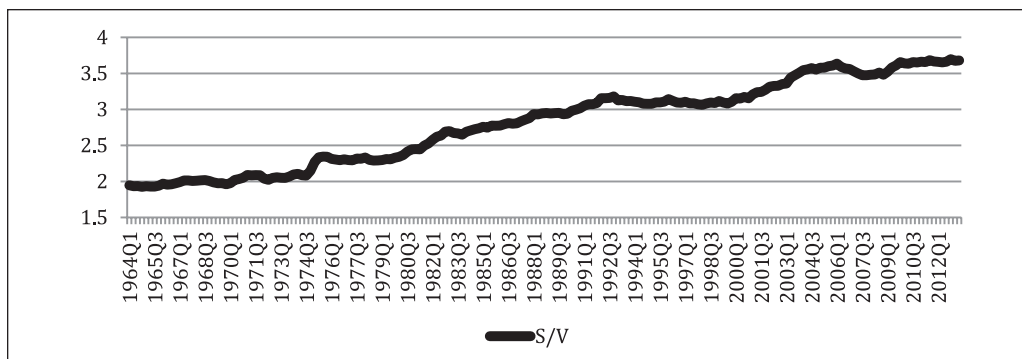
### 3.4. Recovery (2010–2013)

As the introduction to the article indicates, by some measures the crisis was short-lived. What accounts for this very quick recovery? Clearly, there was not enough time for the fundamentals of production, income, or distribution to change significantly. The data provided in this article bear witness to this. The profit rate has improved but is only growing at 1 percent per year. That growth is largely due to a falling trend in the organic composition of capital at a rate of 0.8 percent per year. As Harvey suggests, an increase in exploitation could have helped the recovery, but the rate of growth of exploitation is near zero at 0.3 percent. This does not compare well with the growth in the rate of exploitation of 1.4 percent in the pre-neoliberal era or 4 percent in the neoliberal era.

As Figure 3 illustrates, the rate of exploitation has been on a plateau since 2005. With recent estimates of the rate of surplus value around 3.5, this means that out of an eight-hour workday, approximately 6.25 hours are appropriated as surplus labor.<sup>13</sup> Perhaps we are running up against the current limits of exploitation. Can productive workers reproduce themselves and meet their needs by essentially working less than two hours a day for themselves and six or more for the capitalist enterprise? Perhaps the current limits can be overcome—by technology, for example—but there is no concrete and definitive reason to think that the limit will be overcome quickly.

In the end, this recovery is almost completely driven by the rise in total profit flow realization by 2.86 percent per year. But this rate of growth does not compare favorably to the rate of growth of 4.32 percent in the pre-neoliberal period or of 10.45 percent in the neoliberal period. Furthermore, profit realization cannot long outpace actual produced surpluses. This means that unless something changes, this recovery will likely place the US economy on a footing similar to the one that caused the Great Recession. In some ways, the recovery period may even be more unstable than the period of the mid-2000s, as the role of capitalists' consumption and workers'

<sup>13</sup>These estimates of the rate of exploitation are of a similar magnitude to the estimates provided by Paitaridis and Tsoulfidis (2012), who also incorporate unproductive labor into the surplus.



**Figure 3.** Rates of Exploitation.

debt is at its historic high, representing 67.77 percent of total profit flows, and investment will play an even smaller role than in the past. This suggests that the current path of the recovery will not be one of a reversal of the neoliberal patterns but an intensification of them. Hence, the success of the US economy on this path will depend on productive corporations' continued fight to increasingly shift the distribution of income in favor of those who live off the surplus labor and the financial sector's enhanced ability to funnel more of that income into debt for those who produce the surplus. In short, the recovery will depend on an increase in the rate of exploitation and the ability of finance to increase the debt burden on workers. These are the unfortunate conditions of economic success today.

#### 4. Conclusion

Marxian theory was not wrong about the causes of the Great Recession, although various Marxian theories emphasized different aspects of the crisis. In the end, the rate of profit matters for the trajectory of the economy. But to understand crises such as the Great Recession, profit rates alone are not sufficient. Crises, unlike typical recessions, are sudden and often unforeseen. The Great Recession was both a profit rate and a profit realization crisis. The role of consumption out of the surplus and workers' debt provided sources of realization that hid for some time the profit rate difficulties in the economy that were the focus of much of Marxian crisis theory.

By measuring the sources of realization, we see the extent to which these sources are changing over time. The common assumption that "capitalists don't consume and workers don't save" is completely outdated. As the ranks of unproductive labor grow (Mohun 2006; Moseley 1992; Paitaridis and Tsoulfidis 2012), it is important to take into account all of that income. As Kalecki correctly argues, the consumption aspect of that income is a source of profit realization. The proportion of unproductive labor's income that is not spent becomes a source of debt for productive workers. Productive workers do save, albeit negatively, as they take on debt. This debt is also a significant source of profit realization. What the empirical data show is that many heterodox models of the economy assume away what have become the largest sources of profit realization. In many ways, neoliberalism is as much about disciplining labor as it is about improving the two sources of profit realization noted here.

Looking forward, it appears that the US economy will continue on the neoliberal path. With regard to production, I expect productive labor to be further pressed to produce surpluses despite the fact that it may be difficult to do so. But also, I expect the distribution of income to shift more in the direction of capitalists and other unproductive labor while more debt is made available to workers. One very disappointing aspect of this scenario is that even if the growth in exploitation

is near zero and the profit rate has a long downward trend, this path can be maintained for some time. Adequate profit flows for realization allow the economy to have sufficient circulation to avoid a crisis even in very low profit and low accumulation environments. The recovery is an example of this. Despite low rates of accumulation and near-zero improvements in median wages, the economy endures.

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