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January 2013

WORKINGPAPER SERIES

Number 307

ECONOM)

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Real and Financial Determinants of the Profit Share: The Financial Profit Squeeze

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I. Introduction

One segment of the financialization literature empirically considers how the rise in the political and economic power of financial capitalists impacts the performance and behavior of nonfinancial firms. This analysis is limited to descriptive measures and/or profit rate decompositions that do not consider underlying causal mechanisms. Alternatively, this paper provides a causal analysis of the complex set of income claims/shifts set off by changing class/power relations in the Neoliberal era with a focus on the rise to power of financial capitalists.

An empirical analysis of the profit share (PS) of nonfinancial corporations (NFC) that considers the changing nexus of power relations – capital-labor relation (K-L), the competition among capitalists (K-K), the rise to power of financial capitalists (FK) and their relationship with industrial capitalists (K-FK) – is executed in the hopes of laying a foundation for a theory of Neoliberal macrodynamics.

The current constellation of class relations has resulted in a profit-led finance-dominated accumulation regime. This regime has constrained the recovery of the NFC profit share in the post 1980 period. Thus, the growth potential of a profit-led regime has been undermined at the same time that its underconsumption producing tendencies remain and the likelihood of financial crises became prevalent. Traditional measures of the balance of power in the K-L and K-K class relations are employed in addition to a unique set of variables that capture the power shifts in the K-FK relation. It is argued that FK can have both positive and negative influences on the PS.

A time series regression analysis is employed. Besides descriptively reconfirming the failed recovery of the PS net of payments to FK in the post 1980 period, the results establish a financial squeeze of NFC profits, the specific elements of FK power responsible and the pervasive nature of low road competitive strategies as the power of labor is eroded and competition intensifies.

The remainder of this paper is organized in the following manner. Section II places our work in the existing literature. Section III discusses determinants of the PS with an emphasis on the

multidimensional power spectrum of FK. Section IV presents the variables and models. Section V addresses econometric method and issues. Section VI presents regression results and Section VII concludes.

II. Existing Approaches

Our analysis differs in that a causal model for the class/power determinants of the PS is developed, whereas previous approaches relied on descriptive statistics and profit rate decompositions.³ Another distinction centers on an analysis of the PS – the numerator of the profit rate -- rather than the profit rate.

Given that the impact of FK on NFC profitability involves transfers of industrial profits via financial payments, the PS is the more appropriate outcome variable. In addition, the profit squeeze literature focuses on the PS. The possibility of a financial squeeze of profits is thus best determined from an analysis of the PS. Finally, the inclusion of financial influences in the technology determined denominator of the profit rate (Dumenil and Levy (2004, 2005) and Kotz (2007, 2009)) presents conceptual problems. It is difficult to establish the direct influence of FK on such determinants without making numerous assumptions whose validity may be questioned. In addition, Basu and Vasudevan (2012) show that capital productivity declined in the critical 2000 to 2008 period, presumably due to the outsourcing of jobs in more labor intensive industries, implying that declines in the PS would not be technologically offset in determining the profit rate in this period.

Another difference concerns the treatment of profits net of financial payments. Dumenil and Levy (2004) use profits plus net interest payments, holding gains on mutual fund shares, dividends received, the transfer of income from debt devaluation and foreign earnings retained abroad. The only financial cost considered is interest payments. This net measure of profits is conceptually different from the approach taken here. Dumenil and Levy effectively view the firm as a voluntary portfolio selector. Using their measure, they unsurprisingly find that there has not been a financial squeeze of profits. In contrast, the firm faces a coercive set of class relations that redistributes profits to FK and shareholders. Thus, profits after financial payments should be net of net interest, net dividends and stock buybacks.

III. Neoliberal Power Relations

The nexus of class relations considered include the K-L, K-K and K-FK relations. The traditional two class model is limited to the balance of power between capitalist and workers, the intensity of competition among capitalists and the interaction between competition and the K-L relation as determinants of the profit share. The latter interaction can result in a low road competitive response. The significant weakening of labor in the Neoliberal era and the intensification of global competition has put pressure on firms to cut costs through wage and benefit concessions, downsizing and exporting of jobs as the basis of a low road strategy geared at increasing PS.

Adding a third class, FK, enriches the set of class interactions. FK can have both financial and real effects on PS. FK can transfer NFC profit through financial payments. Here, any rise in PS before finance can be reversed through a financial squeeze of profits – corporations are constrained by competition from passing on rising financial costs to higher prices. As a result, corporations are forced to replace such funds by either competing for them in competitive product markets or by taking on increased levels of debt to meet investment financing. Part of the competitive response may include low road labor strategies. Financial factors can contribute to this low road strategy as discussed below.

The coercive influence of FK power on the PS through transfers of profit is multidimensional. First, increased competition and the squeeze of corporate profits in the last half of the Golden Age resulted in an increased reliance on external finance. Thus, the K-L and K-K relations can influence the flow of financial payments. Second, the deregulation of financial markets and the shift in monetary policy to an anti-inflation stance in the early 1980s resulted in a banking crisis and a major curtailment in the supply of traditional loans. This set off a wave of unregulated financial innovation. In combination this led banks to seek (non-interest) sources of revenue. At the same time that corporations were left without an adequate supply of credit, new innovative sources of credit emerged in the form of junk bonds and commercial paper (Crabbe et al. (1990)). The innovators exerted monopoly power over the pricing of these new instruments. Thus, firms were faced with higher costs of capital. Third, the development of a market for corporate control (Orhangazi (2009; p.127) exercised through the leveraged and hostile takeover movement forced firms to defensively appease stockholders through increased dividend payouts and stock buybacks. Firms that failed to keep their stock price high were more vulnerable to a hostile takeover at a reduced cost. In addition, firms took on additional debt to finance these defensive

financial maneuvers. The market for corporate control is first driven in the 1980s by financial innovations such as junk bonds and the deregulation of institutional investment portfolios. A second phase from 1993-2002 is associated with the unregulated financial reporting practices of corporations during the dot com bubble that ended with the stock market crash and reregulation culminating in the Sarbanes-Oxley Act of 2002. Fourth, the deregulation of pension funds and insurance company portfolios around the mid-1980s resulted in the shareholder value movement (SVM) (Orhangazi (2009). Large institutional investors used the threat of share turnover in order to extract larger dividend payouts and stock buybacks to maintain share price some of which were debt financed. Fifth, the opening up of global financial markets to Western capital (financial liberalization) created new sources of demand for funds resulting in a higher cost of borrowing for domestic firms. It should also be noted that the liberalization of direct investment also impacted the K-L relation by further weakening labor through the threat of offshoring jobs. Finally, the infiltration of NFC corporate boards by FK, another form of control over corporate governance, impacted firm policies. This influence shifted the planning horizon of the firm to the short-run, forced firms to pay more attention to shareholders, and to engage in cost cutting activities associated with downsizing and low road strategies. These outcomes respectively resulted in the purchasing of more financial assets, increased dividends and stock buybacks to appease shareholders, and the pursuit of a low road competitive strategy. Thus, the role that corporate board infiltration has on PS is mixed in nature.

As a result, the firm's financial dealings cannot adequately be addressed by conceptualizing the firm as a portfolio selector. While the firm may engage in such activities, it is primarily engaged in a power struggle over survival. Despite this, we capture portfolio activities by considering net financial payments.

IV. Variables and Model

The variables used consist of the NFC profit share, traditional measures of the two class model interactions and a set of variables that capture the impact of FK on the PS described above. All variable sources and definitions are found in the Appendix. Quarterly data are used and series only available annually are linearly interpolated to quarterly data.

The profit share is defined as net operating surplus excluding all taxes, including taxes on production and imports less subsidies, as a share of sector net value added. There are six variants of the profit share. One before financial factors (PSBF), one with net interest subtracted out (PSINT), one with net dividends subtracted (PSDIV), one with both net interest and dividends removed (PSINTDIV), one with net stock issuance/buybacks added (PSBUY) and one with all three financial factors netted out (PSTOTFIN). The average total squeeze of PSBF by all financial net payments (PSBF-PSTOTFIN) over the period 1980:1 to 2003:4⁹ is 10.3 percentage points. On average, 82.6% of this difference is from net interest (39.3%) and net dividend (43.3%) payments. Thus, net buybacks play a less significant role on average primarily due to its inclusion of new stock offerings, but in certain sub-periods play a more important role. The increased volatility of net buybacks makes it difficult to model the behavior of PSTOTFIN and we do not attempt that here.¹⁰

Traditional measures of the power of labor are used -- the civilian unemployment rate (UN) captures the short-run fluctuations in the political and economic power of labor and the union density rate for private sector workers (UNION) captures long-run aspects. Given that foreign competition is the most significant competitive threat, an import penetration ratio (IPR) is used to capture the K-K relation. Interactions between the K-L and K-K relations are modeled by the following variables: UN*IPR and UNION*IPR.

The financial power variables that respectively capture the six power dimensions listed above are: 1) profit squeeze and increased competition effects on debt are captured by the two class variables just discussed; 2) the impact of deregulation and innovation on the availability of traditional loans and the substitution of higher cost debt innovations is captured by nontraditional banking activity (NONTRAD) defined as the percentage of bank income coming from noninterest income (Edwards and Mishkin (1995)); 3) an index of merger and acquisition activity (MandA) is used to proxy for the market for corporate control; 4) a measure of the relative share turnover for nonfinancial stocks versus financial stocks, if it existed 11, would control for the impact of the SVM; 5) two aggregate financial openness indices one for industrialized economies (FINOPEN) and one for emerging market economies (FINOPEM), developed by Chinn and Ito (2008), are used to measure the impact of financial liberalization which is also an inverse measure of the extent of capital controls 12; and 6) an original variable for the percent of corporate board members with ties to financial corporations (CORPBD) for a

sample of ten industrial corporations represents FK influence on corporate decisions.¹³ Additionally, a slope dummy variable for MandA for the main period of the hostile takeover movement, 1983-1989, (MandA8389) is used to distinguish this period from other merger and acquisition activity. Given the association of this early M&A phase with financial innovation, both NONTRAD and MandA8389 capture the impact of innovation.

One real-financial interaction variable, not explicitly considered in this study, is CORPBD * IPR. Here, the impact of FK on corporate decision making could be influenced by the level of competition which considers that increases in competition may lead FK board members to more readily impose a low road strategy.¹⁴

Additional variables include the real interest rate on BAA rated bonds (RBAA) as a measure of the cost of traditional loans and a time trend (TIME) necessitated by our treatment of the spurious regression/variable trends problem. Given that the relative turnover of nonfinancial stocks is not measured, to the extent that this variable follows a time trend, its effects will be captured in the coefficient on TIME.¹⁵

The CORPBD, FINOPEN, FINOPEM, MANDA, NONTRAD, and UNION variables are linearly interpolated from annual data to quarterly. Given that these variables, with the exception of MandA and NONTRAD, do not experience short-term fluctuations, the regression equations should be minimally compromised in accounting for the cyclical variations in PS.

Descriptive statistics for the PS variables and the explanatory variables for the time period 1980:1 to 2006:Q4 appear in Table 1. Three graphs respectively for the PSBF and PSTOTFIN variables, the two-class power variables and the financial power variables over the entire postwar period appear in Figure 1.

The PS graphs reveal the well documented decline in PSBF from 1965 to 1980, the recovery in the PS from 1980 to 2011 and the reversal of the recovery once financial payments are netted out. The financial squeeze of profits in the post 1980 period is evident in the widening gap between PSBF and PSTOTFIN despite the fact that the slope of PSTOTFIN remains basically the same during the two periods. This suggests that FK was able to capture all of the gains/recovery in the pre-financial PS. In addition to the financial profit squeeze, the PS became more variable in the Neoliberal era. The

coefficient of variation for PS during the 1951 to 1979 period compared to 1980 to 2003 respectively declined by a factor of 1.24 for PSBF, while increasing 1.59 fold for PSTOTFIN.¹⁶ Thus, increased variability in the after finance PS resulted in greater profit uncertainty for IK.

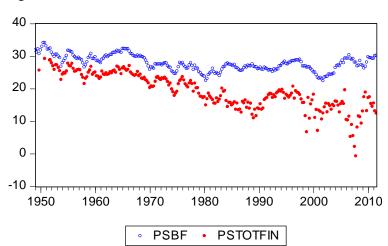
The two-class power variables reveal well known patterns: 1) the precipitous decline in union density throughout the period and at a faster pace in the post 1980 period; 2) the typical cyclical behavior of UN; and 3) the large increase in IPR and at a faster rate in the post 1973 period.

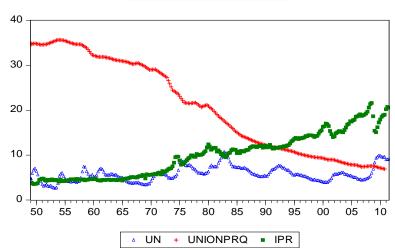
The financial power variables show an upward trend in all variables with the exception of fluctuations in CORPBD. Financial openness in industrialized countries grows at a faster rate after 1995, while mergers and acquisition and nontraditional banking activity rise at a faster pace after 1980. After an intense period of merger activity from 1983-1989, there is a lull in activity that eventually recovers. The corporate board variable shows increased presence of financiers during the decades of the eighties and 2000s and diminished activity during the nineties that returned financier presence to around its 1980 level. Presumably the eighties increase is both the result of and response to hostile takeover attempts, while the latter rise is in response to increased financial pressures from competition.

The generic model for the five measures of profit share that is implied by our theory and available variables is:

$$\begin{split} PS_t &= \beta_0 + \beta_1 U N_t + \beta_2 U N I O N_t + \beta_3 I P R_t + \beta_4 U N * I P R_t + \beta_5 U N I O N * I P R_t + \beta_6 F I N O P I N_t \\ &+ \beta_7 C O R P B D_t + \beta_8 M and A_t + \beta_9 M and A 8 3 8 9_t + \beta_{10} N O N T R A D_t + \beta_{11} R B A A_t \\ &+ \beta_{12} T I M E_t \end{split}$$







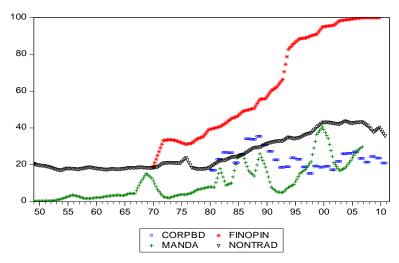


Table 1. Descriptive Statistics

Variable	Mean	Std. Dev.	Max	Min
Profit Share				
PSBF	26.32	1.68	30.37	22.42
PSINT	22.43	2.13	27.63	18.16
PSDIV*	21.61	1.82	24.28	16.80
PSINTDIV*	17.56	1.87	24.28	16.80
PSBUY	24.06	2.51	28.93	16.06
PSTOTFIN*	15.77	2.66	20.69	6.72
Two-Class				
UN	6.15	1.47	10.70	3.90
UNION	11.98	3.53	20.93	7.40
IPR	13.26	2.39	19.08	9.49
Finance				
CORPDB	23.60	5.36	35.26	15.23
FINOPEN	72.29	22.43	99.99	39.29
FINOPEM	20.16	11.63	37.11	4.28
NONTRAD	33.60	7.64	43.77	18.76
MandA	18.40	9.09	40.59	4.89
MandA8389**	18.65	5.28	25.91	9.15
RBAA	7.26	2.19	12.14	1.88

^{*}Sample 1980:q1 to 2003:q4. **Sample 1983:q1 to 1989:q4

Not all variables will be relevant in all regressions. The RBAA variable specifically will only be used in the PSINT equation. The exclusion of any other variables will be addressed in the discussion of specific models.

Important aspects of the model concern the total effects of UN, UNION and IPR and related indicators of low road labor strategies. These total effects are partial derivatives of the PS equation with respect to each of the above variables:

$$Total\ UN\ effect = \beta_1 + \beta_4 IPR$$

Total UNION effect =
$$\beta_2 + \beta_5 IPR$$

Total IPR effect =
$$\beta_3 + \beta_4 UN + \beta_5 UNION$$

Low road outcomes are associated with these total effects. Given the symmetric nature of interaction effects and the implied coefficient restrictions, it is difficult to predict coefficient signs in the total effects. As a result, the best indicator of the prevalence of low road strategies is a positive total IPR effect at critical values of UN and UNION consistent with weakened labor strength. In addition, a positive total UN effect with β_4 >0 (see previous note) would be indicative of a low road strategy. The literature has located four contradictory dynamics that increase the likelihood of this pernicious strategy – the bureaucratic burden (Gordon (1996)), the Neoliberal paradox (Crotty (2003)), banker bloat (Epstein (2010)) and finance-imposed competitive neglect.

Besides low road outcomes, our primary focus is the effect of various sources of FK power on financial payments and thus the PS. Regression coefficients β_6 - β_{10} represent these effects.

One additional equation for the financial squeeze of profits (FPS) is estimated. FPS is defined as the gap between PSBF and the PS after all financial payments (PSTOTFIN). Given that the real influences on PS appear in both FPS components, they cancel out. Thus, FPS can be modeled as

$$FPS_{t} = \beta_{0} + \beta_{1}MandA_{t} + \beta_{2}MandA8389_{t} + \beta_{3}NONTRAD_{t} + \beta_{4}CORPBD_{t} + \beta_{5}FINOPEN_{t} + \beta_{6}TIME_{t}$$

This equation determines which elements of the FK power spectrum are most influencial in squeezing NFC profits. In the results reported below, TIME and FINOPEN were dropped due to insignificance. Given that FINOPEN is more associated with real effects, this is not surprising.

V. Econometric Issues

The econometric issues encountered are detrending and spurious correlation, potential endogeneities, autocorrelated errors and an appropriate lag structure.

Detrending of variables in time series regression is necessary to avoid the well-known problem of spurious regression (Wooldridge (2009; p. 363). Appropriate detrending techniques depend on whether trends are deterministic or stochastic. A contentious debate exists over which approach is appropriate. It is generally accepted that trends change over time, thus deterministic trends with structural breaks (regime shifts) should be considered along with stochastic trends. Political economy macro theory argues that relevant variables have strong deterministic trends with regime shifts. In addition, this approach finds it methodologically unconscionable to assign a large causal role to random influences.

Perron and Wada (2009; p.750) show that for US GDP, a deterministic trend with a structural break avoids the numerous weaknesses associated with simple deterministic trend and stochastic trend decompositions. Given that PS is a component of income (GDP), it is reasonable to assume that these advantages apply to the PS. To verify that our variables contain deterministic trends with breaks, we decompose each variable into trend, cycle and irregular components using a structural time series model.²⁰ Breaks are specified for 1966:1 and 1980:1. A linear or cubic spline is used to model the resulting three trends between 1949-2006. The diagnostic statistics associated with these models show that the underlying assumption of a deterministic trend with breaks is acceptable.²¹

As a result of these findings and the limitation of the sample to 1980:1 to 2006:4, regression equations include a single time trend (TIME) to resolve the spurious regression problem.

Variable impacts on PS are likely to occur with time lags. A polynomial distributed lag is used for each explanatory variable. Reporting and discussion of results focus on the sum of lag coefficients (the overall dynamic impact) associated with a one unit change in each variable. The Akaike Information Criterion

(AIC) and apriori theoretical beliefs were used to determine the optimal polynomial degree and lag length. All lag coefficients were constrained to lie on a quadratic with the exception of variables in the FPS equation which uses a cubic with imposed zero endpoint constraints on lag coefficients.

Numerous potentially endogenous variables (UN, UNION, CORPBD) are included in the PS equation. For example, decreases in PS could lead to downsizing and increases in UN. When the nature of the endogeneity is contemporaneous, econometric estimates are biased. Given that PS affects endogenous variables with a time lag, the regression equations only include lagged endogenous regressors. In this case, as long as autocorrelated errors are corrected and variables are appropriately detrended, regression estimates will be consistent.

Given the importance of a correction for autocorrelated errors, tests were performed using the Durbin Watson and Q statistics to verify that autocorrelation did not exist. In addition, consistent (Newey-West) standard errors in the presence of autocorrelation are reported.

VI. Regression Results

Regression results for the PS equations along with the FPS equation are reported in Table 2. The single coefficient for each variable is the sum of the PDL coefficients. Newey-West standard errors are reported in parentheses. Statistically significant coefficients are denoted by asterisks. The sign of total effects and the condition necessary to obtain that sign are reported. The IPR total effect is evaluated for UN=6 which is approximately its period mean. The sample for all equations with the exception of dependent variables including dividends (PSDIV, PSINTDIV and FPS) is 1980:q1 to 2006:q4. A series of diagnostic statistics is reported: R², the Durbin Watson (DW) statistic, the Q statistic for autocorrelation calculated for up to 14 lags, the sample size N, the degrees of freedom (DF) and the lag length used on all financial variables and all other variables except TIME.

The lack of significance of the Q and DW statistics in all equations implies that an autocorrelation correction was not necessary and that the dynamic (lag) structure of the equations is adequate.

In the baseline PSBF equation, where financial variables are not expected to be relevant, the only financial variable that is significant is FINOPEN. As discussed, this variable more likely captures real

effects such as the threat of exported jobs. This real effect is consistent across all PS equations with similar size coefficients especially after recognizing the larger magnitude of PSBF. Given that FINOPEN is an inverse measure of the extent of capital controls, these results suggest that there are strong policy implications associated with the restoration of capital controls. This policy would help restore labors share of income and stabilize the consumption base of the economy. The CORPBD variable which captures both competing real and financial effects – low road and portfolio selection strategies, appeasement of shareholders with dividends and buybacks – is not statistically significant in all five equations and is eliminated in two cases for parsimony. Although the positive sign implies that low road and portfolio management strategies likely prevail, the overall effect is small. The two-class variables which in theory are the main determinants of PSBF are all statistically significant. The IPR total effect is positive for UNION<11.6. Thus, a low road strategy prevails once labor is sufficiently weakened. This critical unionization rate was reached in the post 1992 period. Prior to that, labor was strong enough to resist the domination of low road strategies. Thus, as competition increased, PS would have been eroded. The total UNION effect is negative at all realistic IPR levels in the post 1980 period. ²⁴ Thus, the persistent decline in union density raised PS. Finally, the UN total effect is positive for typical IPR values experienced after 1987. The total effect is presumably statistically zero prior to 1987. 25

As expected, the two-class total effects show a remarkably consistent impact on all five PS variables. While coefficients can vary widely across equations due to the leeway in the combination of coefficients that produce the same results, the same qualitative total effects emerge with very similar inequality conditions. The range of these total effects, calculated with UN=6, are from zero to maximum absolute values attained at the sample maximum of IPR, 18.7 (15.6 for the restricted sample), or the minimum of UNION, 7.4 (8.2). The median maximum values over the five PS equations are 1.07, 1.23 and -2.37 respectively for the UN, IPR and UNION effects. Thus a one percent decline in the union density rate increased PS by 2.37 percent when IPR was 18.7%, whereas when IPR was around 12%, the effect was zero.

Turning to FK power variables, the results are as anticipated. Given that the percent of nontraditional activity expands from 18.76-43.77 over the period, NONTRAD has large negative impacts on PSINT, PSDIV, and PSINTDIV. The drying up of traditional loans and monopoly control over innovative sources of

credit dramatically increased interest and dividend payments while not statistically affecting buybacks. The impact of mergers is confined to the 1983-1989 period as the MandA coefficient is consistently insignificant. The 1983-1989 coefficient is the sum of the two MandA variable coefficients. The impact of mergers and acquisitions in this sub-period is largest on buybacks and much smaller on interest and dividends. The time trend in all five equations is negative and is significant in only two cases. This trend corrects for spurious correlation by modeling the deterministic negative trend argued to be in the data. To the extent that the omitted trend in the relative turnover of NFC shares follows a positive trend²⁶, then its negative impact on PS is contained in the coefficient on TIME.

These results show that the rise in FK power explains significant portions of financial payments made by the NFC sector. Thus, as FK power expands, the PS declines. This offsets the rise in the PS as a result of the weakening of labor and low road policies that increased the PS in the face of rising competition. Some forms of the multidimensional power spectrum of FK are more relevant than others in lowering the PS. We analyze their relative importance through the FPS equation.

Table 2. Regression Results

Variable	PSBF	PSINT	PSDIV	PSBUY	PSINTDIV	FPS
Financial						
CORPBD	0.040	0.026	0.017			0.125**
	(0.649)	(0.564)	(0.025)			(0.057)
MandA	0.042	0.126	0.077	-0.010	0.042	0.100*
	(0.127)	(0.083)	(0.050)	(0.157)	(0.048)	(0.033)
MandA8389	-0.035	-0.132**	-0.098*	-0.283**	-0.077**	0.102*
	(0.118)	(0.066)	(0.036)	(0.116)	(0.036)	(0.036)
NONTRAD	-0.045	-0.886**	-0.498*	-0.155	-0.616*	0.095**
	(0.563)	(0.400)	(0.187)	(0.470)	(0.235)	(0.038)
FINOPEN	0.342*	0.244*	0.134*	0.191*	0.165*	
	(0.103)	(0.085)	(0.025)	(0.059)	(0.033)	
RBAA		0.087				
		(0.201)				
Two Class						
UN	-9.573**	-8.965*	-5.476*	-7.474**	-4.645*	
	(3.724)	(2.304)	(1.199)	(3.610)	(1.233)	
UNION	7.853**	4.958***	2.556**	2.086	1.284***	
	(3.250)	(2.678)	(1.250)	(1.616)	(0.714)	
IPR	5.223**	2.328	0.488	-0.047	-0.115	
	(2.239)	(2.159)	(0.988)	(1.518)	(0.561)	
UNIPR	0.836*	0.770*	0.394*	0.620***	0.353*	
	(0.323)	(0.189)	(0.106)	(0.340)	(0.117)	
UNIONIPR	-0.886*	-0.606**	-0.316*	-0.327**	-0.207*	
	(0.299)	(0.252)	(0.114)	(0.155)	(0.072)	
Time	-0.629**	-0.283	-0.176*	-0.358	-0.145	
	(0.292)	(0.223)	(0.061)	(0.244)	(0.078)	
Constant	82.030*	80.945*	72.777*	103.436*	70.510*	2.510
	(27.561)	(11.659)	(8.064)	(34.875)	(9.536)	(2.435)
Total Effects						
UN	+(IPR@11.44)	+(IPR211.60)	+(IPR213.0)	+(IPR212.0)	+(IPR213.3)	
UNION	-(IPR28.6)	-(IPR28.18)	-(IPR28.10)	-(IPR26.33)	-(IPR26.10)	
IPR	+(UNION@11.55)	+(UNION211.50)	+(UNION29.50)	+(UNION211.1)	+(UNION29.50)	
Diagnostics						
R ²	0.970	0.981	0.964	0.649	0.952	0.512
DW	2.109	2.173	2.176	2.180	1.663	1.926
Q(14)	18.426	17.976	20.319	18.667	13.647	21.66
N	100	102	92	108	96	88
Df	68	67	60	81	67	79
Fin. Lag	7	5	3	5	3	7
Other Lag	9	7	3	3	3	

^{*}Statistically significant at .01 level, **statistically significant at .05 level, ***statistically significant, 1 tail, .05 level

VII. The Financial Profit Squeeze

The FPS results reveal that all four financial variables play a statistically significant role. All coefficients are positive implying that the gap/squeeze increases with increases in FK power. It should be noted that FINOPEN was dropped on the basis of its primary real effect on PS and its statistical insignificance. While CORPBD was insignificant in the PS equations due to competing effects, once the real components of PS are abstracted from. The positive significance of CORPBD captures the dominance of appeasing stockholders over a portfolio selection strategy for the firm. Recalling that the MandA8389 coefficient is the sum of coefficients (.100 + .102), the M&A movement from 1983-1989 has the largest coefficient, but NONTRAD experienced the greatest increase over the period. To assess the overall impacts of each source of power over the entire period, we calculate their individual contributions as their coefficient times the total change in the variable:

Variable	Variable Total Change	Resulting Change in FPS	
MandA8389	16.75	3.384	
MandA	10.35	1.035	
NONTRAD	25.01	2.376	
CORPBD	3.96	0.495	

The M&A activity between 1983 and 1989 had the largest per unit and total impact on squeezing industrial profits. Thus, an organized effort by FK to seize corporate control required significant resources that only occasionally thwarted these attempts. Here, the power of investment banks and private equity firms under liberalized domestic financial rules had a major influence. Additionally, nontraditional banking activity accounted for a 2.376 point squeeze of the PS. New financial innovations that circumvented a shortage of loans resulted in monopoly power in the credit market capable of squeezing profits.²⁷ Given that the MandA8389 contribution is restricted to a sub-period and is partially reversed, the full period impact of M&A was more limited (1.035). The predicted change in the gap/squeeze over the full period, excluding MandA8389, is 3.906, while the actual squeeze was 3.727.

In summary, the financial squeeze of profits was dramatically impacted by the short-lived hostile takeover heyday, while the more systematic/long-lived impact of monopoly power over new innovations played an important and persistent role. This analysis could benefit from a relative measure of the turnover of industrial corporate stock in order to assign importance to the SVM.

VIII. Conclusion

This study gives insight into the different power influences on the NFC profit share in the post 1980 period. Particular attention is given to the post-Golden Age revival of the PS before financial payments and a complete offset of that revival as a result of the rise to power of financial capitalists that resulted in a financial profit squeeze.

The PS recovery is the result of the decline in the power of labor due to the precipitous fall in union density and the rise in financial liberalization resulting in a greater job offshoring threat over the entire period. In addition, the tail end of the secular rise in unemployment from 1974-1983 increased the PS. Finally, after labor is sufficiently weakened, around the early 1990s, increasing competition allowed low road strategies that improved the PS to dominate.²⁸

The PS recovery is fully offset as a result of FK power. The 1983-1989 innovation and deregulation fueled hostile takeover and leveraged buyout movement which resulted in higher interest, dividend and stock buybacks significantly lowered the PS. Nontraditional banking activity as a proxy for the scarcity of traditional loans and innovative new sources of credit with monopoly pricing premiums operated negatively on PS throughout this period until a lull in this activity from 2000 on. Finally the resurgence of mergers and acquisitions from 1993-2000 also lowered the PS.

The trend in the financial profit squeeze widens over the entire period. The early period squeeze is associated with the takeover movement and the concurrent increase in FK representation on corporate boards. The lull in the growing extent of the squeeze from 1991-1997 coincides with a decline in merger activity and a decline in FK board representation during much of this subperiod. Finally from 1997 on, the squeeze expands as a result of a revival in merger activity and continued high but leveling nontraditional bank activity.

In summary, key characteristics of the Neoliberal era are responsible for both the revival and after finance reversal of PS. The weakening of labor via the decline in union representation, the threat of job exportation and low road competitive strategies explain the rise. The finance-induced reversal is tied to financial deregulation-induced increases in competition that curtailed traditional loans and sparked

innovation. Additionally, the development of a market for corporate control aided by financial innovation and the deregulation of institutional investment portfolios played a significant role.

These results underlie a foundation for macrodynamic instability associated with the current economic crisis. In particular, the revival of PS at the expense of a declining labor share of income underlies the potential for an under-consumption crisis. The finance-induced reversal underlies either an underinvestment problem or in sectors where coerced investment is undertaken, over-investment with financially fragile corporate balance sheets. Finally, the unregulated nature of financial innovation increases the likelihood of a financial crisis. The nexus of these crisis mechanisms acted as a perfect storm responsible for the current crisis (Goldstein (2009)).

¹ See Crottv (2003, 2008), Dumenil and Levy (2004, 2005), Kotz (2007, 2009), Krippner (2011), and Orhangazi (2009).

² Dumenil and Levy (2005; p.18) state that "crude figures are often so telling that not much more is needed to make the point." Given the complexity of interactions that a third class adds to the typical capital-labor analysis and the diverse nature of financial capitalists' sources of power, we beg to differ.

³ Causal models of income shares are used in Goldstein (1996, 1999a, 1999b) and Fiori, Mohun and Veneziani (2012).

⁴ Any decomposition of the denominator of the profit rate to include financial ratios must be able to link those ratios to the capital-output ratio or its inverse. Kotz includes the ratio of financial assets to total assets and the degree of leverage. For an increase in the share of financial assets to positively affect the profit rate, capital productivity must increase. This would require a gross substitutability of financial assets for physical capital, thus lowering the amount of capital somehow without affecting the quantity being produced. For increases in the degree of leverage to increase the profit rate holding the share of financial assets constant, new capital with a higher productivity must be added.

⁵ They also find that capital productivity improved during the previous two decades imply that the secular decline in PS after financial payments could have been offset in the pre-crisis period.

 $^{^{\}rm 6}$ They also find that profits have not been enhanced by financial interactions.

⁷ Dumenil and Levy (2004; p.100) also argue that it is questionable to include direct investment abroad as a financial asset. Thus, we choose to leave this out of the analysis. Additionally they show that the adjustment for income transfer for debt devaluation lowers net interest over the relevant period. Thus excluding this factor will not impact the finding of financial squeeze of profits.

 $^{^{8}}$ Goldstein (1985, 2000) considers these class interactions.

⁹ The 2003:4 cutoff is used to avoid large dividend outliers in 2005 and 2006 that remain unexplained.

¹⁰ PSBF-PSTOTFIN is the only difference that readily varies above and below zero. Its minimum value is -2.33, while all other minimums are positive. In addition, the PSBF-PSBUY difference has a standard deviation that is 2.6 times the next highest standard deviation of the other differences.

¹¹ Only aggregate measures of share turnover are readily available. The inclusion of this variable in the regressions produced statistically insignificant results and thus this variable is excluded from consideration in this paper. The lack of significance is likely associated with relative turnover rates that remain constant when overall market turnover changes.

¹² Chinn and Ito (2008) develop measures for 181 countries. While they aggregate the measures into various country groupings, we start from their raw measures and form our own groupings. While both indices were tested in our regression analysis, the final equations only include the industrialized index. The choice to use only an industrialized group rather than retaining the emerging market group is based on the statistical insignificance of the latter. Also, the vast majority of international financial flows is between industrialized nations. Exclusion of the latter index results in a more parsimonious equation. Given this approach, FINOPEN is likely to capture more the flow of direct investment from the US to other countries than the increased demand for US bank, capital. Thus, the variable may be more indicative of the threat to labor from the export of jobs than a shortage of credit.

¹⁴ This interaction was considered in our regressions. The results demonstrated the proposed effect adding another dimension to low road strategies. Yet, the increased multicollinearity between IPR, CORPBD and the interaction caused the interaction to be insignificant. In addition, the equations with this interaction produced qualitatively similar results on the other dimensions of low road strategies as when the interaction was eliminated.

¹⁵ Given that the SVM has focused more on nonfinancial corporations, it is likely that the relative turnover rate follows a positive trend.

occur.

The potentially contradictory investment outcomes between the Neoliberal paradox and the financially imposed neglect are responsible for differing opinions on the role of over and under investment in the current crisis.

References

- Chinn, Menzie D., and Hiro Ito. 2008. "A New Measure of Financial Openness." *Journal of Comparative Policy Analysis: Research and Practice* no. 10 (3):309-322. doi: 10.1080/13876980802231123.
- Crabbe, Leland E., Margaret H. Pickering, and Stephen D. Prowse. 1990. "Recent Developments in Corporate Finance." *Federal Reserve Bulletin* no. 76 (8):593-603.
- Crotty, James. 2003. "The Neoliberal Paradox: The Impact of Destructive Product Market Competition and Impatient Finance on Nonfinancial Corporations in the Neoliberal Era." *Review of Radical Political Economics* no. 35 (3):271-279.
- ——. 2008. "If Financial Market Competition Is Intense, Why Are Financial Firm Profits So High? Reflections on the Current 'Golden Age' of Finance." *Competition and Change* no. 12 (2):167-183.
- Dumenil, G., & Levy, D. 2004. The Real and Financial Components of Profitability (United States, 1952-2000). *Review Of Radical Political Economics*, *36*(1), 82-110.
- ______. 2005. "Costs and Benefits of Neoliberalism: A Class Analysis." In *Financialization and the World Economy*, edited by Gerald A. Epstein, 17-45. Cheltenham, U.K. and Northampton, Mass.:Elgar.

Edwards, Franklin R., and Frederic S. Mishkin. 1995. "The Decline of Traditional Banking: Implications for Financial Stability and Regulatory Policy." *Federal Reserve Bank of New York Economic Policy Review* no. 1 (2):27-45.

 $^{^{16}}$ The PSBF coefficients of variation respective for early and late periods are .0743 and .0600. For PSTOTFIN they are .1066 and .1692.

Low road outcomes imply contradictory signs. For the total UN, UNION and IPR effects, low road results respectively imply $\beta_1>0$ and $\beta_4>0$, $\beta_2<0$ and $\beta_5>0$, and $\beta_3<0$, $\beta_4>0$ and $\beta_5<0$. Thus, contradictory claims on the sign of β_5 exist and only β_4 can be consistently signed as positive.

While a positive total UNION effect is also indicative, the contradictory claims on the sign of β_5 (see previous note) make this unlikely to

¹⁹ For the bureaucratic burden, competition leads to low road responses that require more supervision to oversee the resulting adversarial K-L relations. As the bureaucratic costs rise, financing problems emerge resulting in a further squeeze on labor costs. In the Neoliberal paradox, rising competition with existing excess capacity forced defensive investment as a survival strategy which exacerbated excess capacity. As profitability declines, financiers and shareholders pressure firms to cut costs via low road strategies. Increased financial payments (banker bloat) forces firms to recover profits via low road policies. Finally, FK- imposed short payoff horizons on management effectively limited firm competitive responses. This resulted in more effective competition and a reduction in profits. Increased FK pressure on acceptable returns resulted in low road responses. In all cases, the low road policy is at least partially financed-induced.

The use of structural time series models in political economy has been discussed and used by Goldstein (1996, 1999a, 1999b).

²¹ Given space considerations, we do not report the results of these decompositions here. An appendix with these results is available upon request from the authors.

In the case of dividends, unexplained large outliers during 2004-2006 are excluded by altering the end date to be 2003:Q4.

²³ Financial variables include CORPBD, FINOPEN, MANDA, MANDA8389, NOBTRAD, and RBAA. Optimal lag structures were found by varying the lags on these two sets of variables rather than individual variables.

The minimum value of IPR in this period is 9.49.

²⁵ The estimated covariance matrix for the sum of lag coefficients, needed to verify this proposition, is not readily available.

 $^{^{26}}$ It is likely that this trend is positive as most of the HTO/LBO/shareholder attacks were focused on industrial corporations.

 $^{^{\}rm 27}$ See Crotty (2008) on monopoly and innovation in financial markets.

 $^{^{\}rm 27}$ Prior to the early nineties, increases in competition reduced the PS.

- Epstein, G. 2010. "Finance without Financiers: Prospects for Radical Change in Financial Governance." Review of Radical Political Economics. 42(3): 293-306.
- Fiorio, C.V., Mohun, S. and Roberto Veneziani. 2012. "Social Democracy and Labour Shares Trends in the UK, 1950-2011." Unpublished manuscript.
- Goldstein, Jonathan P. 1985. The cyclical profit squeeze: a Marxian microfoundation. *Review of Radical Political Economics*. 17(1/2)103:128.
- _____. 1996. The empirical relevance of the cyclical profit squeeze: A reassertion. *Review of Radical Political Economics*. 28(4): 55-92.
- _____. 1999a. The simple analytics and empirics of the cyclical profit squeeze and cyclical under-consumption crises: Clearing the air. *Review of Radical Political Economics*. 31(2): 74-88.
- _____.1999b. "Predator-Prey Model Estimates of the Cyclical Profit Squeeze." *Metroeconomica* 50 (2):139-173.
- ———. 2000. "The Global Relevance of Marxian Crisis Theory." In *Political economy and contemporary capitalism: Radical perspectives on economic theory and policy*, edited by Ron Baiman, Heather Boushey and Dawn Saunders, 68-77. Armonk, N.Y. and London: Sharpe.
- Gordon, David M. 1996. Fat and Mean: The Corporate Squeezse of Working Americans and the Myth of Managerial 'Downsizing'. New York: Martin Kessler Books.
- Hirsch, B. 2008. "Sluggish Institutions in a Dynamic World: Can Unions and Industrial Competition Coexist?" *Journal of Economic Perspectives*. 22(1): 153-176.
- Kotz, David M. 2007. Crisis Tendencies in Two Regimes: A Comparison of Regulated and Neoliberal Capitalism in the U.S. In *Allied Social Science Associations* Chicago, IL.
- . 2009. "Economic Crisis and Institutional Structures: A Comparison of Regulated and Neoliberal Capitalism in the USA." In, Goldstein, J. P., & Hillard, M. G. (eds.) *Heterodox Macroeconomics:*Keynes, Marx and Globalization. Routledge Advances in Heterodox Economics.
- Krippner, G.R. 2011. *Capitalizing on Crisis: The Political Origins of the Rise of Finance*: Harvard University Press.
- Orhangazi, O. 2009. "Did Financialization Increase Macroeconomic Fragility? An Analysis of the US

 Nonfinancial Corporate Sector." In, Goldstein, J. P., & Hillard, M. G. (eds.) *Heterodox*Macroeconomics: Keynes, Marx and Globalization. Routledge Advances in Heterodox Economics.
- Perron, Pierre, and Tatsuma Wada. 2009. "Let's Take a Break: Trends and Cycles in US Real GDP." *Journal of Monetary Economics* no. 56 (6):749-765.
- Scherer, F.M. 2006. "A New Retrospective on Mergers." *Review of Industrial Organization* no. 28 (4):327-341.
- Wooldridge, J.M. 2009. *Introductory Econometrics: A Modern Approach*: South Western, Cengage Learning.

Appendix

Variable Definitions and Sources

NFC Profit Share Variables

All variants of the PS variables are constructed from NIPA Table 1.14 with the exception of the net new equity issues adjustment which comes from Flow of Funds data table F.102, line 39. NIPA line numbers appear in parentheses, while the F.102 line numbers are in square brackets.

$$PSBF = \frac{Net\ Operating\ Surplus(24) + Taxes\ on\ Production\ \&\ Imports\ (Less\ Subsidies)(23)}{Net\ Value\ Added\ (19)}$$

PSINT=PSBF with net interest (25) subtracted from the numerator. PSDIV=PSBF with net dividends (30) subtracted from the numerator. PSINTDIV=PSBF with (25) and (30) subtracted from the numerator. PSBUY = PSBF with net new equity issues [39] added to the numerator. PSTOTFIN=PSBF with (25) and (30) subtracted from and [39] added to the numerator.

The Import Penetration Ratio (IPR) is is defined as

$$IPR = (Imports)/(GDP - Exports)$$

Imports and Exports are from NIPA Table 4.2.3, lines 24 and 1 respectively. GDP comes from NIPA Table 1.1.5, line 1.

Unemployment (UN) is seasonally adjusted total unemployed as a percent of the civilian labor force, U-3, from the Bureau of Labor Statistics.

Union density (UNION) is the percentage of private sector workers that are union members compiled and updated by Hirsch(2008). Updates are available at [http://www.unionstats.com/].

Chinn and Ito (2008; p.311) develop an annual financial openness index (an inverse measure of the extent of capital controls) that "codify the tabulations of restrictions on cross-border financial transactions reported in the IMF's annual report on exchange arrangements and exchange restrictions."

The index considers the combined restrictions on the presence of multiple exchange rates, restrictions

on both current and capital account transactions, and the required surrender of export proceeds. The index is calculated for each of 181 countries across time. This panel data set is made available by Chinn and Ito [http://web.pdx.edu/~ito/Chinn-Ito_website.htm].

While Chinn and Ito develop various aggregate indices for particular subsets of countries, these indices are not made available. Thus, we construct our own indices for industrialized, emerging market and rest of the world country groups. The twenty countries in the industrialized catagory are: The United States, Great Britain, Austria, Belgium, Denmark, France, Germany, Italy, Norway, Sweden, Canada, Japan, Finland, Greece, Iceland, Ireland, Israel, The Netherlands, Portugal, and Spain. Information on the emerging country and rest of world groups are available upon request from the authors. We normalize across the three aggregate indices in order that the relative degree of openness across groups is comparable. We all set the maximum value for the most open group to be 100.

A mergers and acquisitions volume (MandA) index, created by Scherer (2006), measures deal volume in billions of 1972 dollars.

A measure of nontraditional banking activity (NONTRAD) for all commercial banks, suggested by Edwards and Mishkin (1995), is defined as:

Total NonInterest Income
(Total Interest Income+Total NonInterest Income)

The measures of total interest income and total non-interest income were taken from Table CB04 of the FDIC's Historical Statistics on Banking.

The percentage of corporate board members with financial ties (CORPBD) was constructed for a sample of 10 corporations that were predominantly nonfinancial firms in the mid-1960s. Board compositions and biographical information on board members from 1981-2010 were collected from Moody's Industrial Manuals as well as the annual reports of these firms accessed through ProQuest Historical Annual Reports database.

The representative non-financial firms included were AT&T, Boeing, Ford Motor, General Electric, Mobil/ExxonMobil, Texaco/Chevron, Caterpillar, General Motors, IBM, Kraft/Dart-Kraft/Phillip Morris, and United Technologies.

Real interest rate on BAA corporate bonds (RBAA) was calculated as Moody's seasoned BAA corporate bond yield minus the percentage change in the NFC sector implicit price index seasonally adjusted, Federal Reserve Board.