Corporate Share Repurchases and Labor Share: A Micro Analysis

Abstract

We investigate whether share repurchases are significantly responsible for the fall in labor share in U.S. corporations. Using several empirical approaches, we find no evidence that increases in share repurchases contribute to decreases in labor share. For example, the 40 largest share repurchasing firms since 1982 did not decrease labor share. We also rely on exogenous changes in share repurchases around EPS announcements to pinpoint causality. We find instead that decreases in labor share are offset by lower capital issuance and increases in cash. Policies aimed at improving labor share by discouraging share repurchases will likely not achieve their objectives.

Disclaimer: Any views expressed are those of the authors and not those of the U.S. Census Bureau. The Census Bureau has reviewed this data product to ensure appropriate access, use, and disclosure avoidance protection of the confidential source data used to produce this product. This research was performed at a Federal Statistical Research Data Center under FSRDC Project Number 2273. (CBDRB-FY22-0323, CBDRB-FY23-0154, and CBDRB-FY24-0426)

> Between 2008 and 2017, 466 of the S&P 500 companies spent around $4 trillion on stock buybacks, equal to 53 percent of profits…This has become an enormous problem for workers… It's no coincidence that at the same time that corporate stock buybacks and dividends have reached record highs, the median wages of average workers have remained relatively stagnant.
>
> – Senators Chuck Schumer and Bernie Sanders (*New York Times*, February 3, 2019)

The fall in labor share as a percentage of total value added in the United States over the last several decades has been a major focus for academics and politicians. Over roughly the same time period, share repurchases by U.S. corporations have increased dramatically, which has led many economists and politicians to blame share repurchases for this fall.[1] In 1982, the Securities and Exchange Commission adopted Rule 10B-18, which provides a safe harbor provision for companies when making share repurchases. Prior to 1982, a company that undertook share repurchases faced potential allegations of share manipulation. Since that regulation, share repurchases have increased significantly, with share buybacks totaling $6.3 trillion from 2010-2019, for example. During the similar time period, the labor share of companies in the United States has fallen significantly (see Autor, Dorn, Katz, Patterson, and Van Reenen (2020), for example). Motivated by these concurrent trends, in August 2022 the United States passed the Inflation Reduction Act, which includes a 1% nonrefundable excise tax on firm share repurchases over $1 million in a given year. In President Biden's 2023 State of the Union Address, he called

[1] Thomas Piketty argues in "Capital in the Twenty-First Century" that wealth has disproportionately accrued to owners of capital, rather than labor, and the solution for this is the progressive taxation of capital. U.S. Senators Wyden and Brown proposed the "Stock Buyback Accountability Act" in 2021 that would lead to a 2% tax on stock buybacks. They argued the plan would encourage large corporations to invest in their workers rather than enriching investors and executives by boosting stock prices. - *Reuters*, September 10, 2021. "I hate stock buybacks," Sen. Schumer said at a Friday press conference on the [Inflation Reduction Act] legislation. "I think they're one of the most self-serving things that Corporate America does instead of investing in workers and in training and in research and in equipment." – *Wall Street Journal*, August 10, 2022. Senator Elizabeth Warren in a CNBC appearance in 2021 argued, "Corporations say, 'Geez, we can't figure out anything to do with this cash. We're not going to give it back to our investors. We're going to make the investment decision that the only investment in America that makes any sense is to buy back our own stock.'"

for this tax to be increased to 4%. In this paper, we are the first to examine directly whether increases in share repurchases are responsible for lower employee pay.

Using Census data on U.S. firms from 1982-2016, we evaluate whether increases in share repurchases are responsible for the fall in labor share. Using Census data allows us to identify labor expenses at the firm level. We begin by conducting direct tests for whether changes in labor share are associated with changes in share repurchases at the firm level. In these tests, we do not find that increases in share repurchases are associated with declines in labor share (in fact, if anything, there is a positive relationship). This result holds whether we run regressions of changes in labor share on changes in share repurchases, regressions with levels and firm fixed effects, regressions including or excluding year fixed effects, and specifications with a variety of ways of measuring labor share for a firm.

One concern with these initial tests might be that changes in labor share and share repurchases are measured only on an annual basis (although the levels regressions with fixed effects account for this to an extent). A change in share repurchases in a given year might take more than a year to manifest into a change in a firm's labor share. The next set of tests we conduct evaluate this possibility. For these tests, we divide our sample into five equal 7-year periods (e.g., from 1982-1988). During each period, we identify the top 40 share repurchasers in terms of increases in total dollars spent on repurchases during that time window (results are robust to using the top 20 share repurchasers and using the % increase of share repurchases rather than dollars spent). We then evaluate the change in labor share for these firms over the same 7 years and find that the top share repurchasers do not have a significant change in labor share during any of the five different 7-year time windows. These first two sets of results provide compelling evidence that share repurchases are not responsible for the fall in labor share.

One, however, might still be concerned with the causality in these regressions. We conduct an additional test to identify a more direct causal link between share repurchases and labor share. We rely on the experimental design used in Almeida, Fos and Kronlund (2016). In that paper, they show that firms that are close to just missing EPS estimates are more likely to repurchase shares, presumably in an effort to reduce shares outstanding to boost EPS just enough to meet analyst expectations. We rely on this behavior to provide us with a plausibly exogenous change in share repurchases. After confirming that the instrument is valid as in Almeida, Fos and Kronlund (2016), we regress changes in labor share on share repurchases predicted by the instrument. We find no relationship between labor share and instrumented share repurchases, confirming our previous findings.

We then explore an additional experiment to examine payout policy more generally. In 2003, dividend tax rates were reduced, thereby providing an incentive for firms to increase dividends. Economists recognize that dividends are in many ways similar to share repurchases. Chetty and Saez (2005) examine the impact of the 2003 dividend tax cuts and find that the dividend tax cut led to a 20% increase in dividend payments. They do not find any decrease in share repurchases though, instead pointing to an overall increase in total payout. We rely on this event to provide a plausibility exogenous shock to payouts in general. We first confirm that the dividend tax cuts had a material impact on dividend initiations in our sample. Having established this, we identify firms that are more likely to initiate dividends following the tax cut and examine the changes in their labor share compared to other firms that are less likely to change their dividend payments ex ante. We find that the treatment firms that are more likely to increase payout ex ante do not have a significant decrease in labor share. These results confirm that payout generally, whether through repurchases or dividends, does not affect labor share. The bulk of our paper is

focused on share repurchases given the policy attention placed on this corporate behavior specifically, as well as the clear increase in share repurchases since the law change of 1982. Nevertheless, this total payout result reinforces the previous results on share repurchases, since if dividend increases do not reduce labor share, share repurchases are not likely to do so either.

Having established that share repurchases are not responsible for the fall in labor share, a question that naturally follows is, where do the savings from lower labor share go? That is, if labor share falls and share repurchases do not increase in lockstep, then the firm still has extra cash flow to distribute somewhere. One possibility is that the savings accrue to higher CEO pay, another contentious issue (and CEO pay has increased significantly during a similar time period). In two tests similar to the share repurchase tests, we show that there is no impact of CEO pay on labor share, indicating that firms are not paying CEOs more at the expense of other employees.

After empirically showing that decreases in labor share are not associated with higher share repurchases, dividends or CEO pay, we conclude by examining the cash flow statements of firms broadly. Accounting identities imply that the savings from labor must end up somewhere. Generally, the literature has focused on the possibility that it goes to capital. Karabarbounis and Neiman (2014), Greenwood, Hercowitz and Krusell (1997), and Piketty and Zucman (2014) argue that capital increases as labor share falls, but Barkai (2020) argues that labor share and capital have both fallen and "pure profits" have increased. Our approach is different. Since we use firm level data, we focus on the sources and uses of funds for each firm, recognizing the accounting identity that the cash must be spent on something (or else it is "spent" on an increase in cash). In addition to changes in cash holdings, we categorize all activities within a firm into three groups: operating activities, investing activities, and financing activities. We show that when labor share falls, changes in cash holdings and net cash flow from financing activities fall, and net cash flows from

operating and investing activities increase. Thus, the increases in cash flow resulting from the fall in labor share are offset by increases in cash holdings and decreases in cash obtained from external financing. We further look into specific line items in each category, by evaluating whether, for example, debt payments have increased, inventory levels have changed, share issuances have decreased, taxes have gone up, etc., to identify which sources or uses of funds change as labor share falls. We find that within financing activities, net debt issuance decreases significantly following decreases in labor share, indicating that firms with lower labor share are more likely to reduce their use of debt (primarily through the retirement of existing debt). In conjunction with higher cash holdings, this primarily offsets the decrease in labor share, whereas share repurchases have little effect on labor share.

These results have important policy implications as well as corporate finance insights. From a policy perspective, as mentioned, several policymakers have proposed regulations to restrict share repurchases with a goal to increase labor payments.[2] A natural counterargument is that any reduction in share repurchases that would occur due to these regulations would simply be offset by increased dividends, leading to little net impact on labor share. Indeed, our evidence is consistent with this. However, while share repurchases and dividends are similar in many respects, there are some differences that imply the regulations could have some impacts. First, share repurchases are more desirable from a tax perspective than dividends, since share repurchases only lead to capital gains for the selling shareholders, whereas dividends are taxed immediately for all

[2] In addition to the legislation mentioned previously, legislation has also been proposed to repeal the 1982 SEC ruling on share repurchases. Representative Jesus Garcia, one of the sponsoring congressmen for this legislation, argued, "Stock buybacks only exist to pad the pockets of already wealthy corporate executives and shareholders. Companies buy back their stock using funds that could be used to increase worker pay or invest in resources needed to provide high-quality goods and services, leading to higher levels of inequality and business practices that can harm everyday people." – Congressman Garcia's website, October 7. 2022. President Biden's 2023 budget proposal also calls for a 3-year restriction on executive stock sales following a share repurchase, arguing the plan will, "align executives' interests with the long-term interests of shareholders, workers and the economy".

investors (and at higher rates than capital gains rates during some of our sample period). Second, share repurchases offer greater flexibility, as companies are not required to complete the goals after the announcements of share repurchase goals. They can also choose when to make the repurchases, typically over a 2-3 year period from announcement, often through a shelf registration. Therefore, it is possible that by restricting share repurchases, total payout for companies would be reduced, which leads to increased payments to labor. Our paper, however, demonstrates that this is not the case. Further, in our tests using the change in dividend tax rates, we show that even when total payout increases, labor share does not fall.

From a corporate finance perspective, several papers examine share repurchases and their impact on other corporate behavior. Almeida, Fos and Kronlund (2016) find that increases in share repurchases around EPS estimates lead to lower investment and a reduction in employment. Our results, however, show that increases in share repurchases do not lead to reductions in labor share. Labor share is different from employment levels, since labor share includes both changes in employment and changes in average pay, and is also normalized by value added (proxied for by either sales or EBITDA + labor expense in our tests). Further, since we use census data, our data is more comprehensive. Other papers show the positive impact of share repurchases with respect to investment. Grullon and Michaely (2004) find that share repurchase announcements returns are higher for firms that are more likely to overinvest. This implies share repurchases are desirable because they prevent management from spending excess cash flow on negative NPV projects. Similarly, Guest, Kothari, and Venkat (2023) examine returns around share repurchase announcements and find modest increases in share prices following announcements, and they also argue that share repurchases do not reduce valuable investment opportunities. Our evidence shows that one major potential negative of share repurchases, that share repurchases come at the expense

of labor, is not borne out in the data. Taken together, this research shows that share repurchases provide a valuable corporate function with no negative impact on labor.

1. Data and Summary Statistics

1.1 Data

The first dataset we use is the Longitudinal Business Database (LBD), which is compiled from the business register in the Census Bureau and covers nearly all business establishments in the United States. The LBD provides total employment, total payroll, a longitudinal establishment identifier, and an identifier for the firm to which the establishment belongs for each business establishment located in the United States. The total annual payroll, which is one of our key variables, includes all forms of paid compensation, such as salaries, wages, commissions, sick leave, and also employer contributions to pension plans. The second dataset we use is Compustat North America, from which we collect the financial information on active and inactive publicly held companies. To match these two datasets, we use the bridge file provided by the Census Bureau. The final matched sample has roughly 145,000 firm-year observations from 1982 to 2016.[3]

1.2 Key Variables

Following Grullon and Michaely (2002), we use Compustat data to measure share repurchases. Slightly different from their measure, we include the repurchase of preferred stock in addition to common stock in our measure, mainly because we are interested in how corporations allocate their earnings between shareholders and employees regardless of the classes of shareholders. Specifically, we define share repurchases as the total expenditure on the purchase of common and

[3] Because of the disclosure requirement of the Census Bureau, we are not allowed to disclose the exact number of observations. So, here and in later regression analyses, the number of observations is always rounded.

preferred stock (prstkc in Compustat). Our results are qualitatively unchanged if we remove the reduction in the value of preferred stock from this measure.

To measure the total payroll for employees in a firm, we rely on the LBD and aggregate the payroll of each establishment in the firm. However, one important difficulty to note is that the LBD and Compustat report firm information on different bases: the LBD only includes establishments in the United States, and Compustat, on the other hand, includes firms' operation on a global basis. To address this issue and ensure that this difference does not affect our results, in robustness tests we adjust the total payroll from the LBD by the ratio of Compustat employment divided by the LBD employment (because both the LBD and Compustat provide employment data). In this way, we implicitly assume that for Compustat firms, the average employee compensation in the United States is the same as that outside of the United States.

Because we are interested in how corporations distribute their value created between shareholders and employees, ideally, we want to measure the fraction of net value added that goes to share repurchases and the fraction that goes to employee compensation for each firm. However, net value added is not available in either the LBD or Compustat. The closest proxy for net value added we have is EBITDA+Total Payroll. However, this proxy is negative for some of our sample firms, which makes the fraction of it meaningless. Because of the above complications, we use total sales to scale share repurchases and total payroll in our main analysis. In robustness tests, we show that our results are qualitatively similar if we use (EBITDA+Total Payroll) as the denominator, excluding observations where (EBITDA+Total Payoll) is negative.

1.3 Summary Statistics

In Table 1, we show summary statistics for variables used in this paper. The median firm in our sample pays out 19.69% of its sales to its employees. After adjusting the employment difference between the LBD and Compustat, this number becomes 26.44%. The median firm in our sample does not repurchase shares. However, the average firm repurchases shares that are equivalent to 1.79% of its sales, reflecting the skewness of firms' payout behavior. The median firm has $151.5 million in assets, sales of $117.6 million, and a market to book ratio of 1.096.

[Insert Table 1 around here]

2. Empirical Results

2.1 Share Repurchases and Labor Share

A number of papers, such as Autor et al. (2020) and Kehrig and Vincent (2021), have documented that labor share in the United States has decreased markedly over the last several decades. We first verify that labor share in our sample exhibits a similar pattern. Specifically, we identify firms with non-missing sales and payroll information in our sample, and then aggregate the total payroll of these firms and divide it by their aggregate sales. The aggregate labor share is around 16% in 1982 and drops to 11% in 2016. When restricted to the manufacturing firms, the above two numbers are 17% and 9%, respectively. Moreover, the average aggregate labor share in the first five years in our sample from 1982 to 1986 is 21%, and it drops to 10% in the last five years of our sample from 2012 to 2016. Similarly, for manufacturing firms, these two numbers are 22% and 8%, respectively.[4] These numbers show that over the past 35 years, there is an overall downward trend

[4] Autor et. al (2020) and Kehrig and Vincent (2021) use the payroll data in Survey of Manufactures and we use the LBD data, so there are differences in our labor share measures although the overall trend is similar.

in the portion of firm sales that go to employees, consistent with previous findings in the economic literature.

We conduct a similar exercise for the portion of sales that are used to repurchase shares by aggregating the dollar amount of shares repurchased by firms and scaling it by the aggregate sales of these firms. We find that this repurchase share has increased from 0.3% in 1982 to 3% in 2016. Using five-year averages, the fraction of share repurchases in sales is 0.8% from 1982 to 1986 and 3% from 2012 to 2016. The repurchase share among manufacturing firms is similar in magnitude. For example, share repurchases as a fraction of sales in manufacturing firms have increased from 0.4% in 1982 to 3% in 2016. The five-year averages also increase from 0.8% to 3%. These findings are consistent with Kahle and Stulz (2021), who show that, among manufacturing firms, the amount of share repurchases is much higher after 2000 than that from 1982 to 1999.

Simply contrasting the trend in labor share with that in repurchase share, one might jump to the conclusion that corporations repurchase more of their own shares by reducing the compensation they pay out to their employees. However, these aggregate trends make it difficult to uncover the real underlying causes behind them. To this end, we examine the decisions of each individual firm with regard to the payment to their employees vis-à-vis the amount of money spent on repurchasing shares. Specifically, we run the following firm level regression:

$$\Delta LaborShare_{i,t} = \alpha + \beta \times \Delta ShareRep_{i,t} + \gamma \times X_{i,t} + FEs + \varepsilon_{i,t}, \qquad (1)$$

where i indexes firms and t indexes years. $LaborShare$ is defined as the total payroll in a firm-year divided by the total sales in that firm-year, where total payroll is defined in Section II.B; $ShareRep$ is defined as the expenditure on share repurchases in a firm-year divided by the total sales in that firm-year, where share repurchases are defined in Section II.B; $X_{i,t}$ is a vector of

control variables that includes the natural logarithm of the total sales in a firm-year and market-to-book ratio. FEs stand for various fixed effects. Standard errors are two-way clustered at the firm and the year level.

We present the regression results of Model (1) in Panel A of Table 2. We only include year fixed effects in Column 1, and we include both year and industry fixed effects in Column 2. The coefficient on $ShareRep$ is positive and significant across both specifications, suggesting that when a firm repurchases more of its own shares, it also pays more to its employees. This pattern is robust to controlling for additional variables including firm size and market-to-book ratio, the results of which are shown in Columns 3 and 4. In Columns 5 and 6, instead of running regressions of changes, we use the levels of share repurchases and labor share and include firm fixed effects in the regressions. The results are similar, showing a positive relationship between share repurchases and labor share.[5]

[Insert Table 2 around here]

To ensure that our results are robust to different ways of defining labor share, we run two additional sets of robustness tests. First, we use our alternative payroll measure to construct labor share, which addresses the concern that the LBD payroll only includes employees in the United States whereas Compustat includes sales globally. Specifically, we scale up the total payroll of a firm in the LBD by the ratio of the Compustat employment divided by the LBD employment. Using this adjusted labor share, we repeat our analysis in Panel A and present the corresponding results in Panel B. The results are qualitatively similar. Second, instead of using sales to scale the total payroll, we scale it by (EBITDA+Total Payroll), which may better reflect the concept of labor

[5] We investigate how to reconcile this result with changes in cash flows overall in later tests.

share in the economic literature. We note that (EBITDA+Total Payroll) is negative in a fraction of our sample. Therefore, we remove these observations when redoing our baseline analysis. The results are presented in Panel C, and they are similar to those presented in Panel A and Panel B.

Another possibility is that changes in the share repurchases of a firm in a given year take more than one year to manifest into changes in the firm's labor share, which may not be captured by our regression analysis of Model (1), given that both share repurchases and labor share are measured in the same year in that analysis. To address this concern, ideally we would identify top share repurchasers and track their labor share over time. However, because firms constantly enter and exit our sample, especially in Compustat, it is difficult to keep a consistent set of top repurchasers from 1982 to 2016. Instead, we divide our sample into five equal 7-year periods (e.g., from 1982 to 1988), as it is much easier to have the same set of firms over seven years than over the entire sample period. For each period, we identify 40 firms whose share repurchases have increased the most, in terms of dollar amounts and growth rates respectively.[6] We then plot the labor share of these 40 firms over the five separate periods in Figure 1.[7] In Panel A where we show the top repurchasers in terms of dollar amount, it is evident that these firms do not have a significant decrease in their labor share during any of the five periods. In fact, in each of the five subperiods, the share of sales paid out to employees by these firms is stable over time. In Panel B, we plot a similar series for the top 40 firms that have the highest growth rates in share purchases. In two of the five series, the pattern is flat or slightly upward sloping, which is similar to that in

[6] Due to the idiosyncrasy of share repurchases, we use the change in share repurchases from the first three years to the last three years in each period to gauge the increase in share repurchases. For example, to identify top share repurchasers from 1982 to 1988, we calculate the average amount of funds spent on share repurchases from 1982 to 1984 for each firm and compare it with that from 1986 to 1988.

[7] Due to known issues with the LBD data in 1988 and 1989 (Jarmin and Miranda, 2002), we extrapolate the aggregate labor share in these two years by multiplying the Compustat labor share by the average ratio between the LBD labor share and the Compustat labor share in other years.

Panel A. In the remaining three series, there is a slightly downward trend. In conjunction with the results in Table 2, we conclude that the fall in labor share is not due to increases in share repurchases.

[Insert Figure 1 around here]

2.2 Endogeneity Concerns

In the last section, we show that increases in share repurchases are not responsible for the fall in labor share. However, one might still be concerned with the possibility that share repurchases and labor share are simultaneously determined by some unobservable factors. In this section, we exploit an experiment that exogenously changes firms' incentives to repurchase shares to address these concerns.

The experiment relies on an instrumental variable used in Almeida, Fos, and Kroulund (2016), who identify two otherwise similar groups of firms that differ sharply in their incentives to repurchase shares: firms that would have just missed their EPS forecast in the absence of the repurchase and firms that just meet or beat the EPS forecast. Following their procedure, we start with quarterly data and calculate firms' pre-repurchase EPS by adding back the number of shares repurchased to the shares outstanding. Similar to Almeida, Fos, and Kroulund (2016), we account for foregone interest by assuming that funds used for share repurchases are invested in a 3-month T-bill, which we add on top of current earnings. Then, we restrict our sample to firm-quarters in which their pre-repurchase EPS is within one cent of the consensus forecast. In this sample, if the pre-repurchase EPS is slightly smaller than the forecast, firms have stronger incentives to engage in share repurchases. Because our analyses are conducted at the yearly level, we create a variable $MissRatio$, which calculates the ratio of the number of quarters in which a firm's pre-repurchase

EPS is one cent smaller than the consensus to the number of quarters a firm's pre-repurchase EPS is within one cent of the consensus within the year.

We then conduct a standard two-stage least squares analysis (2SLS), in which we use $MisRatio$ to instrument for share repurchases. Specifically, we first estimate the following first-stage regression model:

$$ShareRep_{i,t} = \alpha + \beta \times MissRatio_{i,t} + \gamma \times X_{i,t} + FEs + \varepsilon_{i,t}, \quad (2)$$

where i indexes firms and t indexes years. $ShareRep_{i,t}$ is share repurchases scaled by total sales in year t; $MissRatio_{i,t}$ is the fraction of quarters in which a firm has strong incentives to boost its EPS by repurchasing shares in year t; $X_{i,t}$ is a vector of control variables that includes the natural logarithm of total sales and the market to book ratio. FEs stand for various fixed effects we include in the regression. Standard errors are two-way clustered at the firm level and the year level.

The regression results of Model (2) are presented in Column 1 of Table 3. The coefficient on our instrument is positive and statistically significant at 1%. The coefficient of 0.0162 indicates that firms with an additional quarter in which their EPS would just miss the consensus forecast without share repurchases are more likely to repurchase their shares that represent 0.405% (0.0162/4) of their annual sales. The F Statistics is 175, indicating that $MissRatio_{i,t}$ is a relevant and strong instrument.

[Insert Table 3 around here]

We then estimate our second stage regression model by using the predicted value of $ShareRep_{i,t}$ as the main independent variable. Specifically, we run the following regression model:

$$\Delta LaborShare_{i,t} = \alpha + \beta \times \widehat{ShareRep}_{i,t} + \gamma \times X_{i,t} + FEs + \varepsilon_{i,t}, \quad (3)$$

where i indexes firms and t indexes years, $\widehat{ShareRep}_{i,t}$ is the predicted value of $ShareRep_{i,t}$ from Model (2), and all other variables are the same as those in Model (2). Standard errors are two-way clustered at the firm level and the year level.

The results for the above regression are presented in Column 2 of Table 3. The coefficient on $ShareRep_{i,t}$ is 0.2386, statistically indistinguishable from zero, suggesting that share repurchases have little impact on labor share after accounting for endogeneity concerns. In Column 3, we repeat the analysis in the first two columns by additionally controlling for industry fixed effects. In Columns 4 and 5, we redo the analysis in the first three columns by additionally controlling for firm size and market to book ratio. All these specifications yield results that are similar to those presented in the first two columns.

We have also conducted a battery of robustness tests and presented the results in Table OA1 to Table OA3 in the Online Appendix. Specifically, in Table OA1, we repeat our analyses using the adjusted labor share instead of labor share as our main independent variable, where adjusted labor share is the labor share scaled up by the ratio of the Compustat employment to the LBD employment. In Table OA2 of the Online Appendix, we use changes in labor share from year $t-1$ to year $t+1$ as the dependent variables, which helps to address the concern that share repurchases may take a longer time to have real impacts on firm operations. In Table OA3 of the Online Appendix, we show the reduced form regression results. That is, we directly regress changes in labor share from year $t-1$ to year t on $MissRatio$ in year t. All these results exhibit a pattern that is similar to what is shown in Table 3, which is that changes in share repurchases are not negatively correlated with changes in labor share.

2.3 Dividend Policy

In this section, we explore an additional experiment to examine how changes in payout policy in general affects labor share. In 2003, the maximum tax rate on dividends in the United States was reduced from 38% to 15%. As shown in Chetty and Saez (2005), this tax cut induced an unusually large number of firms to initiate or increase regular dividend payments afterwards. Although share repurchases and dividends are often considered alternative ways for corporations to pay out to their shareholders, Chetty and Saez (2005) do not find any decrease in share repurchases following the tax cut, suggesting an overall increase in total payouts.

Following Chetty and Saez (2005), we split all firms into two groups: the control group firms, which are defined as those whose largest institutional owner in 13F database is not affected by the tax change (institutions that are exempt from dividend taxes, including pension funds, insurance companies, nonprofit organization, nonfinancial corporations, and government agencies), and the treatment group firms, which include all other firms. We then examine the payout behavior of firms in each group, and report the relevant results in Table 4. In the left three columns of Panel A, we present the results on dividend initiations, and the results show that a significantly larger fraction of firms in the treatment group initiate dividend payments after the tax cut relative to firms in the control group (the difference in differences (DiD) estimate is 3.87% with p-value 0.0594), which is consistent with the findings in Chetty and Saez (2005). Since share repurchases and dividends are often considered alternative ways for corporations to pay out to their shareholders, we next examine whether the tax cut affects how firms repurchase their shares. For example, firms may simply reduce their share purchases while increasing their dividend initiations, leaving the total payout unchanged.

[Insert Table 4 around here]

In the right three columns of Panel A, we present results on the total amount of funds spent on share repurchases before and after the tax cut for the aforementioned two groups of firms. Our results reveal that relative to the control group, firms in the treatment group actually repurchase more of their own shares following the tax cut, but this is statistically insignificant (DiD estimate 0.245% with p-value 0.6369). This result is also consistent with Chetty and Saez (2005), who document a similar trend for share repurchases following the tax cut. In Panel B, we examine how this event, which increases the likelihood of dividend payouts but does not change the tendency of share repurchases, affects labor share. The results show that firms in the treatment group have a similar change in labor share compared with firms in the control group (DiD estimate 0.0036 with p-value 0.8686), indicating that when facing incentives to pay dividends, firms do not reduce the fraction of their revenues that is used to pay their employees. In Table OA4 of the Online Appendix, we also include other labor share measures, including adjusted labor share, changes in labor share, and changes in adjusted labor share, and we find consistent results that there is no significant difference in the labor share of firms in the control group and that in the treatment group after the dividend tax law change.

2.4 CEO Compensation

Having established that share repurchases and payouts in general are not responsible for the fall in labor share, a natural question that follows is, where do the savings from lower labor share go? That is, if labor share falls and share repurchases and dividends do not increase in lockstep, then the firm still has extra cash flow to distribute somewhere. One possibility is that the savings accrue to higher CEO pay, another contentious issue aside from share repurchases. In this section, we conduct two tests similar to the share repurchase tests to evaluate this possibility.

We first regress changes in CEO compensation on changes in labor share and present the results in Table 5. Similar to our analysis on share repurchases, we show our results using changes, levels, and with various fixed effects. If increases in CEO compensation indeed substitute for the decreases in labor share, we would expect a negative relation between these two. However, our results reveal a positive relationship, indicating that when CEOs get paid more, the employees in the firm also command a larger share of the revenue. In Table OA5 in the Online Appendix, we show a similar set of results using adjusted labor share.

[Insert Table 5 around here]

Similar to Figure 1, we also draw a chart and present it in Figure 2, in which we divide our sample into several seven-year sub-periods and show the evolvement of labor share over time for firms in which CEO compensation has increased the most in each of the sub-periods.[8] In Panel A, we quantify the increases in CEO compensation using dollar amounts, and in Panel B, we quantify the increases in CEO compensation using growth rates. As evident in both panels, firms whose CEO compensation has increased the most do not reduce their employee pay. In fact, consistent with the regression results, there appears to be a positive relationship even among firms in which the compensation for CEOs has increased the most aggressively. Overall, one clear observation from both analyses in this section is that CEO compensation is not the culprit for the decrease in labor share.

[Insert Figure 2 around here]

[8] Because the Execucomp data start in 1992, we only have four years, from 1992 to 1995, in the first subperiod. To be consistent with Figure 1 which has seven years in each subperiod, we start our analysis from 1996 and have three seven-year subperiods from 1996 to 2016. The results are similar if we start our analysis from 1992.

2.5 Changes in Cash Flows

In the previous sections, we show that changes in corporate payouts and CEO compensation do not offset changes in labor share. If anything, they seem to move in the same direction as labor share, indicating that changes in cash flows brought about by labor share changes are more likely to be aggravated by changes in payouts and executive compensation. However, the simple accounting identity implies that changes in cash flows caused by line items such as labor expenses must be accounted for somewhere else in the cash flow statements. We shed light on this question by evaluating the entire list of items in the cash flow statements. Specifically, we first categorize all activities that are sources or uses of cash flow into three groups: operating activities, investing activities, and financing activities. We then examine the impact of labor share changes on the following three aggregate items: net cash flow from operating activities, net cash flow from investing activities, and net cash flow from financing activities.

We regress changes in net cash flows from each of the above three categories on changes in labor share using the following model:

$$\Delta NetCashFlow_{i,t} = \alpha + \beta \times \Delta LaborShare_{i,t} + \gamma \times X_{i,t} + FEs + \varepsilon_{i,t}, \qquad (4)$$

where i indexes firms and t indexes years. $\Delta NetCashFlow_{i,t}$ is the changes in net cash flows from one of the above three categories scaled by total sales from year $t-1$ to year t, and $\Delta LaborShare_{i,t}$ is the changes in labor share from year $t-1$ to year t.[9] Standard errors are two-way clustered at the firm level and the year level.

[9] We also for robustness ran the main tests of the paper using one-year lagged independent variables, and the results do not materially change.

The results are presented in Table 6. In Column 1 of Panel A, we show that the overall impact of changes in labor share on changes in operating cash flow is negative. That is, when labor share increases, which will result in a decrease in cash flow, net cash flow from operating activities also decreases. This result is robust to a number of specifications, including using levels or changes, and with or without fixed effects. Next, we examine investing activities and its association with labor share. If firms, for example, use the additional cash flow resulting from the fall in labor share to invest in more projects, we would observe that the net cash flow from investing activities falls when labor share falls (implying more capital expenditures, for example, since that is a use of cash). To test if this is the case, we estimate a model similar to Model (4) with changes in the net cash flow from investing activities as the dependent variable. The coefficient on $\Delta LaborShare$ in this regression, as shown in panel B of Table 6, is negative and significant, indicating that when firms have more cash flows from low labor share, they also generate more cash flows from investing activities. We then turn to financing activities. Presumably, firms with low labor share have more internal cash flows, which could be used to reduce their reliance on external financing. To evaluate this conjecture, we first estimate Model (4) by regressing the changes in cash flow from financing activities on the changes in labor share. In Panel C of Table 6, we show the estimation results, and the coefficient on $\Delta LaborShare$ is positive, suggesting that when labor share falls, firms generate lower amounts of cash flows from financing activities. In other words, firms with lower labor shares generate less cash flow from external financing. Combined together, the results in Table 6 suggest that firms may divert savings from reduced labor share to reduce their reliance on external financing.

[Insert Table 6 around here]

In Table 7, we take one step further and analyze which specific item within financing activities offsets the changes in cash flows caused by changes in labor share. We primarily focus on the net debt issuance of these firms, because equity related items such as share repurchases and dividend payments have been extensively examined in the previous sections. Specifically, we define net debt issuance as the difference between debt issuance and debt redemption, and then we scale net debt issuance by total sales and regress it on changes in labor share. The results in Table 7 show that following decreases in labor share, firms reduce their net debt issuance, suggesting that these firms reduce their reliance on debt financing. Economically, the reduction in debt issuance is meaningful. When labor share decreases by 10%, these firms reduce their net debt issuance by 0.2% of their sales. Given that the net debt issuance of the average firm as a fraction of its sales is only 5%, this value is approximately 4% of net debt issuance.

[Insert Table 7 around here]

Another possibility is that firms use the extra savings to invest in new projects and expand their production. Although the results in Table 6 point toward the opposite direction, we directly analyze firms' investment decisions by regressing their capital expenditures as a fraction of sales on changes in labor share. We report the estimates in Table 8, and the results are consistent with those in Table 6, showing that firms actually reduce their capital investments when they have extra savings from labor cost reduction.[10]

[Insert Table 8 around here]

Lastly, recognizing the accounting identity that any surplus or deficit of cash flows from the three sources (operating, investing, and financing) will result in an increase or a decrease in

[10] Note that capital expenditure is a contra cash flow item in the cash flow states. So the results in Table 8 are consistent with the results in table 6, although the coefficients are in the opposite directions.

the cash balance, we next examine how the cash balance of a firm changes following changes in labor share. Because cash balance is an accumulative measure (not a flow measure), the residual cash flow item in the financial statement is the changes in cash balance. Therefore, we analyze the impact of changes in labor share on the changes in the changes of cash balance and report the results in Table 9. Specifically, we regress changes in cash holding changes on changes in labor share in Columns 1 to 4, and in we regress changes in cash holdings on the level of labor share in Columns 5 to 6. Across all six specifications, the results reveal a similar pattern, which is that firms with lower labor share have a larger increase in their cash holdings.

[Insert Table 9 around here]

Like earlier tests, we present our results using adjusted labor share in Tables OA6 to OA9 of the Online Appendix. The results are similar to those shown in Table 6 to Table 9. Taken together, the results in this section suggest that when firms' labor share falls, part of the resulting increases in cash flow is used to reduce these firms' reliance on debt financing, with the remainder added back to firm's cash holdings. Other commonly postulated explanations, such as share repurchases and CEO compensation, are not where the additional cash flows into. In fact, these two items move in the same direction as labor share, i.e., when labor share falls, CEO compensation and share repurchases as a fraction of firm sales also fall.

3. Conclusion

Corporations distribute profits to executives and other employees in the form of compensation, to investors in the form of interest, dividends and share repurchases, and to the government in the form of taxes. Recent economic literature has documented a significant decline in the share paid to labor over the past several decades. One popular (mis)belief is that corporations pay out more

to their shareholders in the form of share repurchases by reducing the share they pay to their employees.

In this paper, we cast serious doubt on this popular notion. Specifically, we first show that the increase in share repurchases is not responsible for the fall in labore share. If anything, there is a positive relationship between these two. We show that this relationship holds under various specifications and is robust after controlling for various fixed effects. To address possible endogeneity concerns, we explore two experiments: the incentive of firms on the verge of missing their earnings forecast to boost their earnings by repurchasing shares and the 2003 dividend tax cut. In both cases, we show that exogenous changes to share repurchases and dividends lead to little change in labor share.

We further examine how firms spend the additional savings resulting from the fall in labor share. Our evidence shows that the funds go to two sources: cash holdings and debt reduction. Therefore, rather than paying out to their shareholders, firms with low labor share tend to have larger cash holdings, which could be used for future investment projects, and are more likely to use internal cash flow to reduce their reliance on external financing.

References

Almeida, Heitor, Vyacheslav Fos, and Mathias Kronlund. "The real effects of share repurchases." *Journal of Financial Economics* 119, no. 1 (2016): 168-185.

Autor, David, David Dorn, Lawrence F. Katz, Christina Patterson, and John Van Reenen. "The fall of the labor share and the rise of superstar firms." *The Quarterly Journal of Economics* 135, no. 2 (2020): 645-709.

Barkai, Simcha. "Declining labor and capital shares." *The Journal of Finance* 75, no. 5 (2020): 2421-2463.

Chetty, Raj, and Emmanuel Saez. "Dividend taxes and corporate behavior: Evidence from the 2003 dividend tax cut." *The Quarterly Journal of Economics* 120, no. 3 (2005): 791-833.

Greenwood, Jeremy, Zvi Hercowitz, and Per Krusell. "Long-run implications of investment-specific technological change." *The American economic review* (1997): 342-362.

Grullon, Gustavo, and Roni Michaely. "Dividends, share repurchases, and the substitution hypothesis." *The Journal of Finance* 57, no. 4 (2002): 1649-1684.

Grullon, Gustavo, and Roni Michaely. "The information content of share repurchase programs." *The Journal of Finance* 59, no. 2 (2004): 651-680.

Guest, Nicholas, S. P. Kothari, and Parth Venkat. "Share repurchases on trial: Large-sample evidence on share price performance, executive compensation, and corporate investment." *Financial Management* 52, no. 1 (2023): 19-40.

Jarmin, Ron S., and Javier Miranda. 2002. "The Longitudinal Business Database." CES Working Paper no. 02-17. Washington, D.C.: Center for Economic Studies, U.S. Census Bureau.

Kahle, Kathleen, and René M. Stulz. "Why are corporate payouts so high in the 2000s?." *Journal of Financial Economics* 142, no. 3 (2021): 1359-1380.

Karabarbounis, Loukas, and Brent Neiman. "The global decline of the labor share." *The Quarterly Journal of Economics* 129, no. 1 (2014): 61-103.

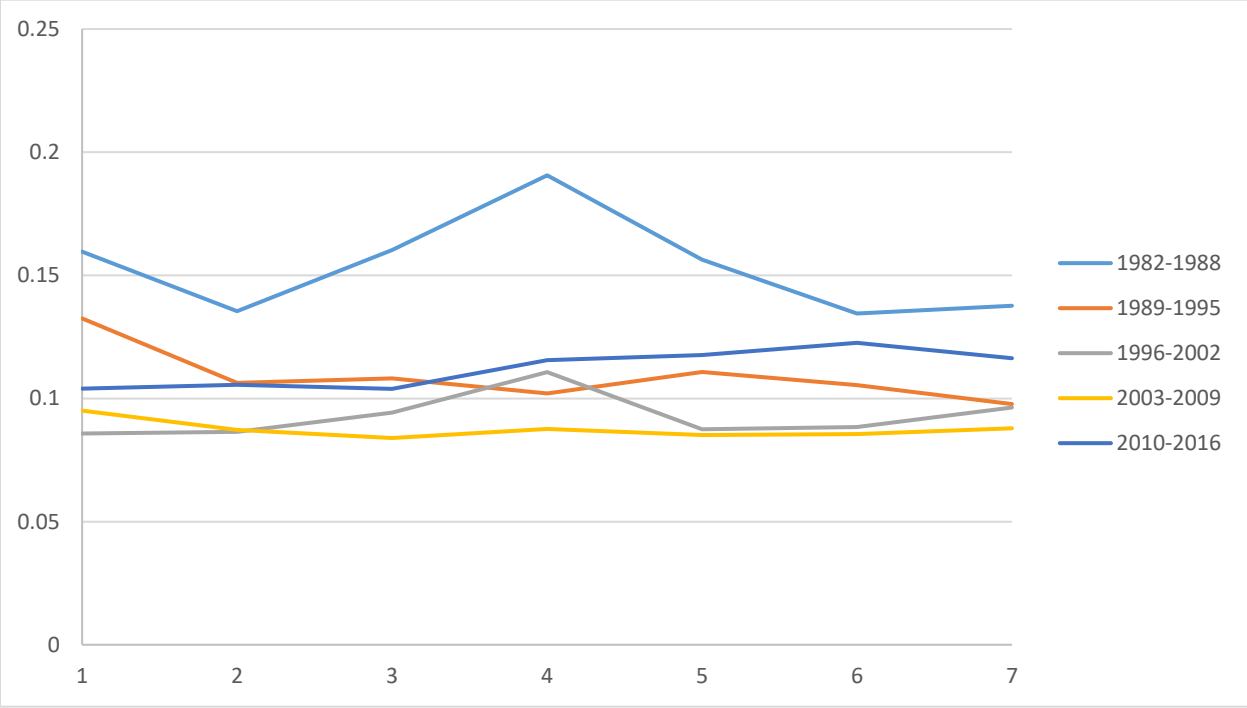
Kehrig, Matthias, and Nicolas Vincent. "The micro-level anatomy of the labor share decline." *The Quarterly Journal of Economics* 136, no. 2 (2021): 1031-1087.

Piketty, Thomas, and Gabriel Zucman. "Capital is back: Wealth-income ratios in rich countries 1700–2010." *The Quarterly journal of economics* 129, no. 3 (2014): 1255-1310.

Figure 1: Labor share of Top 40 Share Repurchasers

This figure presents the evolvement of the labor share of 40 firms whose share repurchases have increased the most during each 7-year subperiod. In Panel A, the increase in share repurchases is defined by dollar amounts, and in Panel B, the increase in share repurchasers is defined by growth rates.

Panel A: Top Share Repurchasers Defined by Increases in Dollar Amounts



Panel B: Top Share Repurchasers Defined by Growth Rates

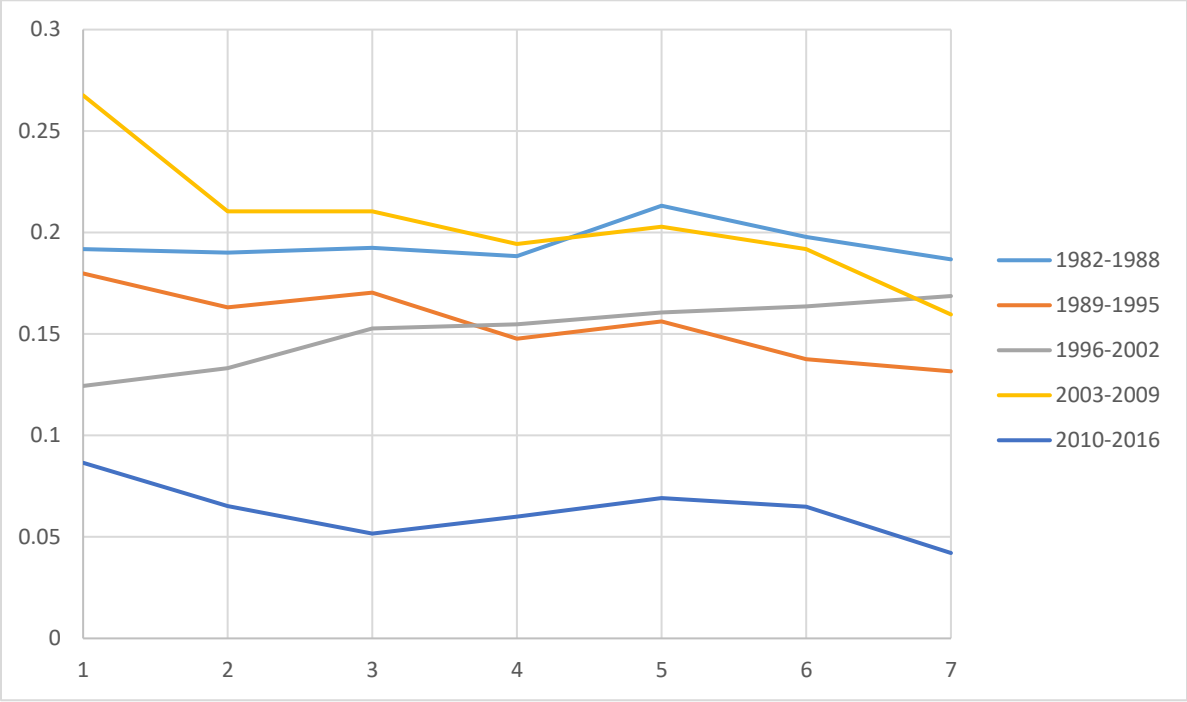
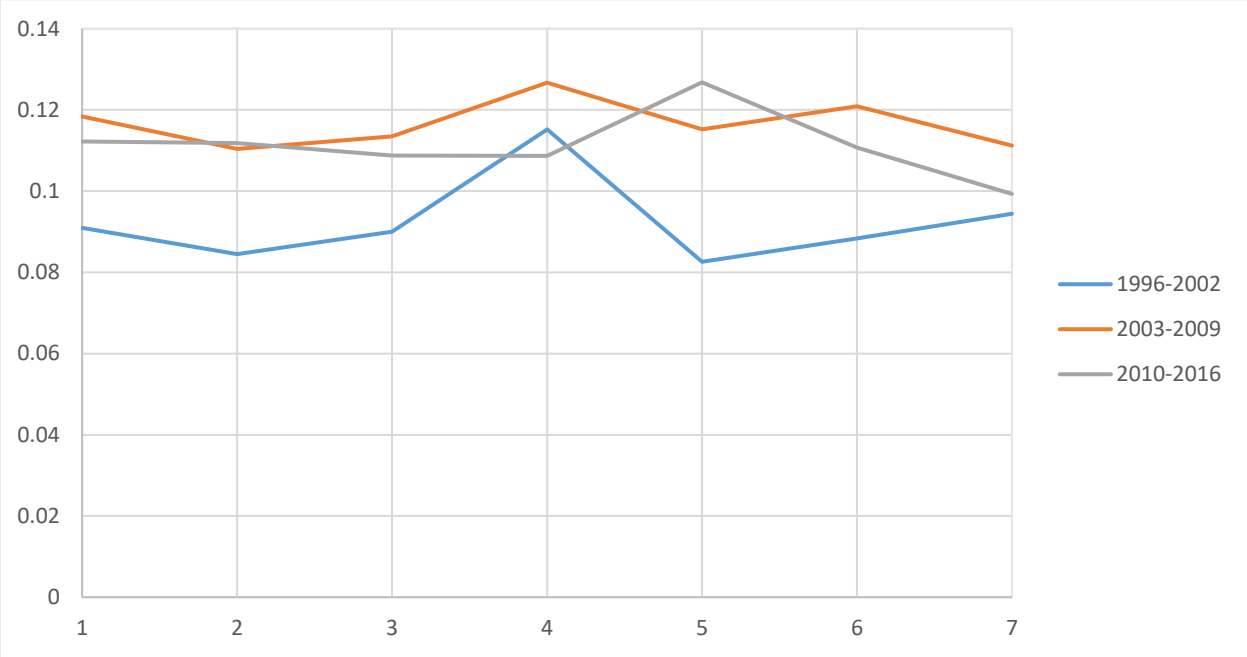


Figure 2: Labor Share of Top 40 Firms with Highest CEO Compensation

This figure presents the evolvement of the labor share of 40 firms whose CEO compensation has increased the most during each 7-year subperiod. In Panel A, the increase in CEO compensation is defined by dollar amounts, and in Panel B, the increase in CEO compensation is defined by growth rates.

Panel A: Top CEO Payers Defined by Increases in Dollar Amounts



Panel B: Top CEO Payers Defined by Growth Rates

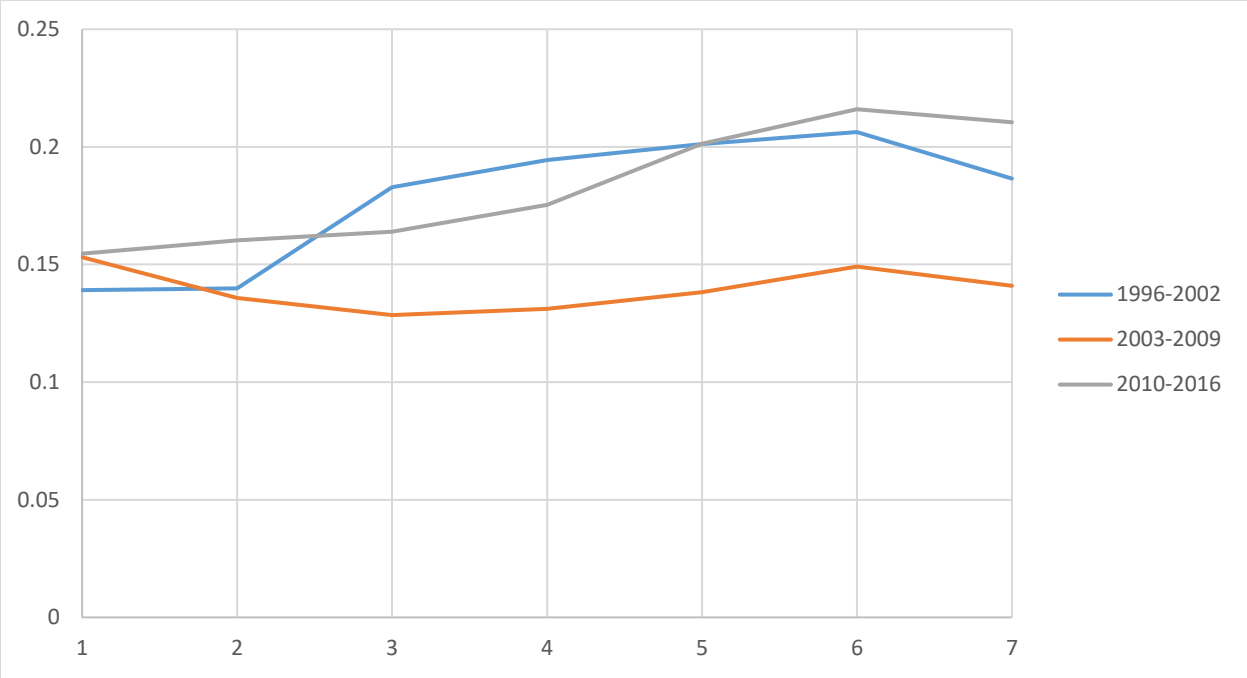


Table 1: Summary Statistics

This table presents the summary statistics for the sample used in this study. Due to the disclosure requirements of the Census Bureau, the number of observations is rounded to the nearest 1000s. The percentiles reported are pseudo, in the sense that each reported percentile is the mean of the two adjacent percentiles (e.g., pseudo 25th percentile is the average of the 24th percentile and the 26th percentile). See Appendix for detailed variable definitions.

	Mean	Std. Dev.	Pseudo 25thpercentile	Pseudo median	Pseudo 75thpercentile	N
LaborShare	0.440	1.355	0.106	0.197	0.323	145,000
ΔLaborShare	-0.024	1.052	-0.026	0.000	0.022	132,000
LaborShare_Adjusted	0.642	2.004	0.157	0.264	0.423	145,000
ΔLaborShare_Adjusted	-0.037	1.635	-0.037	0.000	0.035	132,000
ShareRep	0.018	0.053	0.000	0.000	0.006	145,000
ΔShareRep	0.001	0.058	0.000	0.000	0.000	128,000
CEOComShare (in percentage)	0.455	0.862	0.085	0.199	0.446	33,000
ΔCEOComShare (in percentage)	-0.015	0.621	-0.052	0.000	0.049	29,000
Market-to-Book	1.793	2.272	0.739	1.096	1.884	145,000
Size (2016 constant dollar in billions)	1.298	3.826	0.022	0.118	0.624	145,000
OperatingCF	-0.411	2.755	-0.009	0.066	0.154	122,000
ΔOperatingCF	0.035	1.096	-0.048	0.001	0.052	106,000
InvestingCF	-0.233	0.937	-0.181	-0.054	-0.011	122,000
ΔInvestingCF	0.055	1.099	-0.058	0.001	0.069	106,000
FinancingCF	0.612	3.097	-0.043	0.001	0.121	122,000
ΔFinancingCF	-0.131	1.986	-0.087	-0.001	0.071	106,000
NetDebtIssue	0.050	0.354	-0.018	0.000	0.026	138,000
ΔNetDebtIssue	-0.007	0.336	-0.032	0.000	0.033	121,000
CapitalExp	0.127	0.362	0.015	0.035	0.082	145,000
ΔCapitalExp	-0.014	0.173	-0.014	0.000	0.011	132,000
CashChange	0.020	0.769	-0.026	0.001	0.039	139,000
ΔCashChange	-0.016	0.918	-0.044	0.003	0.058	122,000

Table 2: Share Repurchases and Labor Share

This table reports the regression results on the relationship between share repurchases and labor share at the firm level. In Panel A, the dependent variables are labor share; in Panel B, the dependent variables are adjusted labor share; in Panel C, the dependent variables are alternative measures of labor share. In Columns (1) to (4), labor share and share repurchases are measured in changes. In Columns (5) and (6), labor share and share repurchase are measured in levels. Dependent variables and independent variables are measured in the same year. Change variables are calculated as the differences between the current year value and the previous year value. Standard errors are clustered at both the firm level and the year level, and p-values are reported in parentheses. ***, **, * correspond to statistical significances at the 1, 5, and 10 percent levels, respectively. See Appendix for detailed variable definitions.

Panel A: Labor Share

	(1) ΔLaborShare	(2) ΔLaborShare	(3) ΔLaborShare	(4) ΔLaborShare	(5) LaborShare	(6) LaborShare
ShareRep					0.7276***	0.5624***
					(0.000)	(0.000)
ΔShareRep	0.5093***	0.5031***	0.5134***	0.5073***		
	(0.000)	(0.000)	(0.000)	(0.000)		
Size			-0.0083**	-0.0105***		-0.5789***
			(0.012)	(0.005)		(0.000)
Market-to-Book			-0.0658***	-0.0715***		0.0329
			(0.000)	(0.000)		(0.112)
Observations	132000	132000	132000	132000	145000	145000
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	No	Yes	No	Yes	No	No
Firm FE	No	No	No	No	Yes	Yes
R-squared	0.003	0.003	0.004	0.004	0.552	0.632
Adjusted R-squared	0.002	0.002	0.003	0.003	0.489	0.581

Panel B: Labor Share Adjusted						
	(1)	(2)	(3)	(4)	(5)	(6)
	ΔLaborShare_Adj	ΔLaborShare_Adj	ΔLaborShare_Adj	ΔLaborShare_Adj	LaborShare_Adj	LaborShare_Adj
ShareRep					1.124***	0.8927***
					(0.000)	(0.000)
ΔShareRep	0.7637***	0.7608***	0.7686***	0.7661***		
	(0.000)	(0.000)	(0.000)	(0.000)		
Size			-0.0106**	-0.0143**		-0.7987***
			(0.042)	(0.015)		(0.000)
Market-to-Book			-0.0758***	-0.0797***		0.1080***
			(0.004)	(0.009)		(0.001)
Observations	132000	132000	132000	132000	145000	145000
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	No	Yes	No	Yes	No	No
Firm FE	No	No	No	No	Yes	Yes
R-squared	0.003	0.003	0.003	0.004	0.531	0.603
Adjusted R-squared	0.002	0.002	0.003	0.003	0.465	0.547

Panel C: Alternative Labor Share Measure						
	(1)	(2)	(3)	(4)	(5)	(6)
	ΔLaborShare_Alt	ΔLaborShare_Alt	ΔLaborShare_Alt	ΔLaborShare_Alt	LaborShare_Alt	LaborShare_Alt
ShareRep					0.1249***	0.1437***
					(0.000)	(0.000)
ΔShareRep	0.2169***	0.2172***	0.2183***	0.2183***		
	(0.000)	(0.000)	(0.000)	(0.000)		
Size			-0.0056***	-0.0061***		-0.1748***
			(0.009)	(0.005)		(0.000)
Market-to-Book			-0.0618***	-0.0721***		-0.1965***
			(0.000)	(0.000)		(0.000)
Observations	110,000	108,000	110,000	108,000	120,000	120,000
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	No	Yes	No	Yes	No	No
Firm FE	No	No	No	No	Yes	Yes
R-squared	0.014	0.015	0.018	0.018	0.518	0.548
Adjusted R-squared	0.014	0.014	0.017	0.017	0.453	0.488

Table 3: EPS Driven Share Repurchases

This table reports the instrumental variable regression results using firms' incentives to repurchase their shares induced by meeting earnings expectations to instrument for share repurchases. The instrument, *MissRatio*, is the number of quarters in a year in which the firm's pre-repurchase meanings miss the consensus by one cent as a fraction of the number of quarters in a year in which the firm's pre-repurchase earnings are within one cent of the consensus in that year. The sample in this analysis contains firm-year observations in which the firm has at least one quarter with pre-repurchase earnings within one cent of the forecast consensus. Column (1) reports the first stage regression results, and Columns (2) to (5) report the second stage results. Dependent variables and independent variables are measured in the same year. Change variables are calculated as the differences between the current year value and the previous year value. Standard errors are clustered at both the firm level and the year level, and p-values are reported in parentheses. ***, **, * correspond to statistical significances at the 1, 5, and 10 percent levels, respectively. See Appendix for detailed variable definitions.

	(1)	(2)	(3)	(4)	(5)
	ShareRep	ΔLaborShare	ΔLaborShare	ΔLaborShare	ΔLaborShare
	1st Stage	2nd Stage	2nd Stage	2nd Stage	2nd Stage
MissRatio	0.0162***				
	(0.000)				
ShareRep (predicted)		0.2386	0.2724	0.251	0.2925
		(0.713)	(0.660)	(0.630)	(0.592)
Size				-0.009	-0.0113
				(0.272)	(0.190)
Market-to-Book				-0.0265	-0.0305
				(0.303)	(0.337)
Observations	16,000	16,000	16,000	16,000	16,000
Year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	No	No	Yes	No	Yes
R-squared		0.004	0.008	0.005	0.010
Adjusted R-squared		0.0027	0.0030	0.0038	0.0043
Cragg-Donald Wald F statistic	175.00				
Kleibergen-Paap Wald rk F statistic	59.39				

Table 4: Payout Policy and Labor Share

This table contrasts the payout policy and labor share of firms whose largest institutional shareholder is not exempt from dividend taxes (Treatment Group) with those of firms whose largest shareholder is exempt from dividend taxes (Control Group), before and after the 2003 Tax Reform. Dividend tax exempt institutions include pension funds, insurance companies, nonprofit organizations, nonfinancial corporations, and government agencies. The before period is from 1998 to 2002, and the after period is from 2003 to 2004. Panel A reports the impact of the tax reform on dividend initiation and share repurchases, and Panel B reports the impact of the tax reform on labor share. P-values are in parentheses. p-values are reported in parentheses. ***, **, * correspond to statistical significances at the 1, 5, and 10 percent levels, respectively. See Appendix for detailed variable definitions.

Panel A: Payout Policy

	Dividend Initiation			Share Repurchases		
	Treatment	Control	Treatment-Control	Treatment	Control	Treatment-Control
Before	0.0345	0.0371	-0.0026	0.0187	0.0195	-0.0008
	(obs.=12,000)	(obs.=550)	(0.7444)	(obs.=12,000)	(obs.=550)	(0.7323)
After	0.0615	0.0254	0.0361	0.0168	0.0151	0.0017
	(obs.=4,300)	(obs.=100)	(0.1052)	(obs.=4,300)	(obs.=100)	(0.7110)
After-Before	0.0270***	-0.0117	0.0387*	-0.0019**	-0.0043	0.0025
	(0.0000)	(0.5325)	(0.0594)	(0.0350)	(0.3770)	(0.6369)

Panel B: Labor Share

	Treatment	Control	Treatment-Control
Before	0.2741	0.2397	0.0344***
	(obs.=12,000)	(obs.=550)	(0.0003)
After	0.2527	0.2147	0.0380**
	(obs.=4,300)	(obs.=100)	(0.0426)
After-Before	-0.0214***	-0.0250	0.0036
	(0.0000)	(0.2322)	(0.8686)

Table 5: CEO Compensation and Labor Share

This table reports regression results on the relationship between CEO compensation and labor share at the firm level. In Columns (1) to (4), labor share and CEO compensation as a fraction of sales are measured in changes. In Columns (5) and (6), labor share and CEO compensation as a fraction of sales are measured in levels. Dependent variables and independent variables are measured in the same year. Change variables are calculated as the difference between the current year value and the previous year value. Standard errors are clustered at both the firm level and the year level, and p-values are reported in parentheses. ***, **, * correspond to statistical significances at the 1, 5, and 10 percent levels, respectively. See Appendix for detailed variable definitions.

	(1) ΔLaborShare	(2) ΔLaborShare	(3) ΔLaborShare	(4) ΔLaborShare	(5) LaborShare	(6) LaborShare
CEOCompShare					0.1206***	0.0743***
					(0.000)	(0.000)
ΔCEOCompShare	0.0545***	0.0546***	0.0545***	0.0546***		
	(0.000)	(0.000)	(0.000)	(0.000)		
Size			-0.0013	-0.0013		-0.1929***
			(0.698)	(0.764)		(0.000)
Market-to-Book			-0.0081	-0.0056		-0.0285*
			(0.295)	(0.535)		(0.076)
Observations	29,000	29,000	29,000	29,000	33,000	33,000
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	No	Yes	No	Yes	No	No
Firm FE	No	No	No	No	Yes	Yes
R-squared	0.014	0.015	0.014	0.015	0.548	0.580
Adjusted R-squared	0.013	0.011	0.013	0.011	0.496	0.530

Table 6: Operating Cash Flow, Investing Cash Flow, and Financing Cash Flow

This table reports regression results on the relationship between cash flows from different sources and labor share at the firm level. In Panel A, the dependent variables are operating cash flows; in Panel B, the dependent variables are investing cash flows; in Panel C, the dependent variables are financing cash flows. In Columns (1) to (4), labor share and cash flows are measured in changes. In Columns (5) and (6), labor share and cash flows are measured in levels. Dependent variables and independent variables are measured in the same year. Change variables are calculated as the difference between the current year value and the previous year value. Standard errors are clustered at both the firm level and the year level, and p-values are reported in parentheses. ***, **, * correspond to statistical significances at the 1, 5, and 10 percent levels, respectively. See Appendix for detailed variable definitions.

Panel A: Operating Cash Flow

	(1) ΔOperatingCF	(2) ΔOperatingCF	(3) ΔOperatingCF	(4) ΔOperatingCF	(5) OperatingCF	(6) OperatingCF
ΔLaborShare	-0.6870***	-0.6935***	-0.6870***	-0.6936***		
	(0.000)	(0.000)	(0.000)	(0.000)		
LaborShare					-1.498***	-1.407***
					(0.000)	(0.000)
Market-to-Book			0.0529***	0.0557***		-0.1204***
			(0.000)	(0.000)		(0.000)
Size			-0.0102***	-0.0098***		0.2517***
			(0.000)	(0.000)		(0.000)
Observations	106,000	104,000	106,000	104,000	118,000	118,000
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	No	Yes	No	Yes	No	No
Firm FE	No	No	No	No	Yes	Yes
R-squared	0.367	0.371	0.369	0.372	0.846	0.849
Adjusted R-squared	0.367	0.371	0.369	0.372	0.824	0.827

Panel B: Investing Cash Flow						
	(1) ΔInvestingCF	(2) ΔInvestingCF	(3) ΔInvestingCF	(4) ΔInvestingCF	(5) InvestingCF	(6) InvestingCF
ΔLaborShare	-0.0989***	-0.0978***	-0.1010***	-0.1000***		
	(0.000)	(0.000)	(0.000)	(0.000)		
LaborShare					-0.1565***	-0.1428***
					(0.000)	(0.000)
Market-to-Book			-0.0420	-0.0511***		-0.1262***
			(0.126)	(0.003)		(0.000)
Size			-0.0271***	-0.0266***		0.0319***
			(0.000)	(0.000)		(0.000)
Observations	106,000	104,000	106,000	104,000	118,000	118,000
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	No	Yes	No	Yes	No	No
Firm FE	No	No	No	No	Yes	Yes
R-squared	0.010	0.011	0.013	0.014	0.380	0.382
Adjusted R-squared	0.009	0.010	0.013	0.013	0.290	0.292

Panel C: Financing Cash Flow						
	(1) ΔFinancingCF	(2) ΔFinancingCF	(3) ΔFinancingCF	(4) ΔFinancingCF	(5) FinancingCF	(6) FinancingCF
ΔLaborShare	0.7078***	0.7133***	0.7108***	0.7171***		
	(0.000)	(0.000)	(0.000)	(0.000)		
LaborShare					1.250***	1.121***
					(0.000)	(0.000)
Market-to-Book			-0.0615	-0.0266		0.5110***
			(0.165)	(0.501)		(0.000)
Size			0.0616***	0.0626***		-0.3400***
			(0.000)	(0.000)		(0.000)
Observations	106,000	104,000	106,000	104,000	118,000	118,000
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	No	Yes	No	Yes	No	No
Firm FE	No	No	No	No	Yes	Yes
R-squared	0.121	0.125	0.128	0.130	0.655	0.662
Adjusted R-squared	0.121	0.124	0.127	0.129	0.605	0.613

Table 7: Labor Share and Net Debt Issuance

This table reports the regression results of the impact of labor share on net debt issuance. In Columns (1) to (4), labor share and net debt issuance are measured in changes. In Columns (5) and (6), labor share and net debt issuance are measured in levels. Dependent variables and independent variables are measured in the same year. Change variables are calculated as the difference between the current year value and the previous year value. Standard errors are clustered at both the firm level and the year level, and p-values are reported in parentheses. ***, **, * correspond to statistical significances at the 1, 5, and 10 percent levels, respectively. See Appendix for detailed variable definitions.

	(1)	(2)	(3)	(4)	(5)	(6)
	ΔNetDebtIssue	ΔNetDebtIssue	ΔNetDebtIssue	ΔNetDebtIssue	NetDebtIssue	NetDebtIssue
LaborShare					0.0177***	0.0129***
					(0.000)	(0.000)
ΔLaborShare	0.0172***	0.0171***	0.0172***	0.0170***		
	(0.000)	(0.000)	(0.000)	(0.000)		
Size			-0.0016	-0.0048		0.0141***
			(0.812)	(0.203)		(0.007)
Market-to-Book			-0.0001	-0.0009		-0.0146***
			(0.946)	(0.384)		(0.000)
Observations	121,000	118,000	121,000	118,000	133,000	133,000
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	No	Yes	No	Yes	No	No
Firm FE	No	No	No	No	Yes	Yes
R-squared	0.005	0.005	0.005	0.005	0.303	0.303
Adjusted R-squared	0.00454	0.00413	0.00452	0.00414	0.201	0.202

Table 8: Labor Share and Capital Investment

This table reports the regression results of the impact labor share on capital expenditures. In Columns (1) to (4), labor share and capital expenditures are measured in changes. In Columns (5) and (6), labor share and capital expenditur4es are measured in levels. Dependent variables and independent variables are measured in the same year. Change variables are calculated as the difference between the current year value and the previous year value. Standard errors are clustered at both the firm level and the year level, and p-values are reported in parentheses. ***, **, * correspond to statistical significances at the 1, 5, and 10 percent levels, respectively. See Appendix for detailed variable definitions.

	(1) ΔCapitalExp	(2) ΔCapitalExp	(3) ΔCapitalExp	(4) ΔCapitalExp	(5) CapitalExp	(6) CapitalExp
LaborShare					0.1135***	0.0999***
					(0.000)	(0.000)
ΔLaborShare	0.1035***	0.1038***	0.1036***	0.1039***		
	(0.000)	(0.000)	(0.000)	(0.000)		
Size			-0.0031	-0.0018		0.0179***
			(0.360)	(0.633)		(0.000)
Market-to-Book			0.0044***	0.0041***		-0.0425***
			(0.000)	(0.000)		(0.000)
Observations	132,000	130,000	132,000	130,000	141,000	141,000
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	No	Yes	No	Yes	No	No
Firm FE	No	No	No	No	Yes	Yes
R-squared	0.125	0.127	0.127	0.128	0.628	0.633
Adjusted R-squared	0.125	0.126	0.126	0.127	0.576	0.581

Table 9: Labor Share and Changes in Cash Holdings

This table reports the regression results of the impact of labor share on changes in cash holdings. In Columns (1) to (4), labor share and changes in cash holdings are measured in changes. In Columns (5) and (6), labor share and changes in cash holdings are measured in levels. Dependent variables and independent variables are measured in the same year. Change variables are calculated as the difference between the current year value and the previous year value. Standard errors are clustered at both the firm level and the year level, and p-values are reported in parentheses. ***, **, * correspond to statistical significances at the 1, 5, and 10 percent levels, respectively. See Appendix for detailed variable definitions.

	(1)	(2)	(3)	(4)	(5)	(6)
	ΔCashChange	ΔCashChange	ΔCashChange	ΔCashChange	CashChange	CashChange
LaborShare					-0.0464***	-0.0479***
					(0.000)	(0.000)
ΔLaborShare	-0.0860***	-0.0865***	-0.0844***	-0.0847***		
	(0.000)	(0.000)	(0.000)	(0.000)		
Size			-0.0091	0.0183**		0.1342***
			(0.179)	(0.016)		(0.000)
Market-to-Book			0.0157***	0.0170***		0.0031
			(0.000)	(0.000)		(0.386)
Observations	118,000	116,000	118,000	116,000	129,000	129,000
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	No	Yes	No	Yes	No	No
Firm FE	No	No	No	No	Yes	Yes
R-squared	0.009	0.011	0.011	0.012	0.167	0.169
Adjusted R-squared	0.00917	0.0101	0.0106	0.0113	0.0530	0.0556

Appendix: Variable Definitions

Variable Name	Definition
LaborShare	Total employee pay of each firm in a year from the LBD divided by total sales of the same firm in the same year from the Compustat.
LaborShare_Adj	LaborShare multiplied by an adjusting factor, where the adjusting factor = the number of employees of the firm from the Compustat divided by number of employees of the same firm from the LBD.
ShareRep	Share Repurchases of each firm in a year divided by total sales of the same firm in the same year, both from Compustat.
CEOCompShare	100 multiplied by total CEO compensation from the Execucomp (TDC1) of a firm in a year divided by total sales of the same firm in the same year from the Compustat.
Market-to-Book	The ratio of the sum of long-term debt, current liabilities, prefer stock, and equity market capitalization to the book value of total assets.
Size (in billions)	Total sales of a firm in a year from the Compustat in 2016 constant dollars.
OperatingCF	Operating cash flow of a firm in a year divided by total sales of the same firm in the same year, both from the Compustat.
InvestingCF	Investing cash flow of a firm in a year divided by total sales of the same firm in the same year, both from the Compustat.
FinancingCF	Financing cash flow of a firm in a year divided by total sales of the same firm in the same year, both from the Compustat.
NetDebtIssue	Net debt issuance of a firm in a year divided by total sales of the same firm from the same year, both from the Compustat.
CapitalExp	Capital expenditures of a firm in a year divided by total sales of the same firm from the same year, both from the Compustat.
CashChange	Changes in cash holdings of a firm in a year divided by total sales of the same firm from the same year, both from the Compustat.

Online Appendix

Table OA1: EPS Driven Share Repurchases - Adjusted Labor Share

This table replicates Table 3 using adjusted labor share as the main dependent variable. All other variables are the same as those in Table 3. Standard errors are clustered at both the firm level and the year level, and p-values are reported in parentheses. ***, **, * correspond to statistical significances at the 1, 5, and 10 percent levels, respectively. See Appendix for detailed variable explanations.

	(1)	(2)	(3)	(4)	(5)
	ShareRep	ΔLaborShare_Adj	ΔLaborShare_Adj	ΔLaborShare_Adj	ΔLaborShare_Adj
	1st Stage	2nd Stage	2nd Stage	2nd Stage	2nd Stage
MissRatio	0.0162***				
	(0.000)				
ShareRep (predicted)		-0.2934	-0.2156	-0.2476	-0.1646
		(0.753)	(0.806)	(0.743)	(0.833)
Size				-0.0092	-0.0114
				(0.406)	(0.336)
Market-to-Book				-0.0189	-0.0172
				(0.625)	(0.723)
Observations	16,000	16,000	16,000	16,000	16,000
Year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	No	No	Yes	No	Yes
R-squared		0.001	0.005	0.001	0.006
Adjusted R-squared		-0.0006	-0.0002	0.0006	0.0005

Table OA2: EPS Driven Share Repurchases - Labor Share Change from Year t-1 to Year t+1

This table replicates Table 3 using labor share change from the last year to the next year as the dependent variable. All other variables are the same as those in Table 3. Standard errors are clustered at both the firm level and the year level, and p-values are reported in parentheses. ***, **, * correspond to statistical significances at the 1, 5, and 10 percent levels, respectively. See Appendix for detailed variable explanations.

	(1) ShareRep 1st Stage	(2) ΔLaborShare 2nd Stage	(3) ΔLaborShare 2nd Stage	(4) ΔLaborShare 2nd Stage	(5) ΔLaborShare 2nd Stage
MissRatio	0.0160***				
	(0.000)				
ShareRep (predicted)		1.1440*	0.8910*	0.7837	0.6697
		(0.070)	(0.078)	(0.208)	(0.192)
Size				0.0084	0.0085
				(0.412)	(0.468)
Market-to-Book				-0.0646**	-0.0684*
				(0.040)	(0.059)
Observations	13,500	13,500	13,500	13,500	13,500
Year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	No	No	Yes	No	Yes
R-squared		0.002	0.005	0.004	0.007
Adjusted R-squared		0.0009	-0.0015	0.0028	0.0001

Table OA3: EPS Driven Share Repurchases - Reduced Form

This table reports the reduced-form results for Table 3 by regressing changes in labor share on the instrument, *MissRatio*, directly. All other variables are the same as those in Table 3. Standard errors are clustered at both the firm level and the year level, and p-values are reported in parentheses. ***, **, * correspond to statistical significances at the 1, 5, and 10 percent levels, respectively. See Appendix for detailed variable explanations.

	(1) ΔLaborShare	(2) ΔLaborShare	(3) ΔLaborShare	(4) ΔLaborShare
MissRatio	0.0039	0.0047	0.0042	0.0051
	(0.729)	(0.678)	(0.646)	(0.609)
Size			-0.0085	-0.0100
			(0.356)	(0.337)
Market-to-Book			-0.0224	-0.0233
			(0.347)	(0.406)
Observations	16,000	16,000	16,000	16,000
Year FE	Yes	Yes	Yes	Yes
Industry FE	No	Yes	No	Yes
R-squared	0.003	0.008	0.004	0.009
Adjusted R-squared	0.0021	0.0024	0.0030	0.0033

Table OA4: Labor Share around Dividend Tax Cut – Other Labor Share Measures

This table repeats the analysis in Panel B of Table 4 by using different measures of labor share: Adjusted Labor share (Panel A), Changes in Labor Share (Panel B), and Changes in Adjusted Labor Share (Panel C). All other variables are the same as those in Table 4. P-values are reported in parentheses. ***, **, * correspond to statistical significances at the 1, 5, and 10 percent levels, respectively. See Appendix for detailed variable definitions.

Panel A: Adjusted Labor Share			
	Treatment	Control	Treatment-Control
Before	0.4020	0.3678	0.0342**
			(0.0252)
After	0.3799	0.3442	0.0357
			(0.2335)
	-0.0221***	-0.0236	0.0015
After-Before	(0.0002)	(0.4848)	(0.9678)
Panel B: Changes in Labor Share			
	Treatment	Control	Treatment-Control
Before	-0.0015	-0.0029	0.0014
			(0.7092)
After	-0.0119	-0.0057	-0.0062
			(0.3643)
	-0.0104***	-0.0028	-0.0076
After-Before	(0.0000)	(0.7227)	(0.3602)
Panel C: Changes in Adjusted Labor Share			
	Treatment	Control	Treatment-Control
Before	-0.0043	-0.0016	-0.0027
			(0.6613)
After	-0.0078	-0.0022	-0.0055
			(0.6353)
	-0.0034	-0.0007	-0.0028
After-Before	(0.1564)	(0.9599)	(0.8427)

Table OA5: CEO Compensation and Adjusted Labor Share

This table replicates Table 5 by replacing labor share with adjusted labor share in the dependent variables. All other variables are the same as those in Table 5. Standard errors are clustered at both the firm level and the year level, and p-values are reported in parentheses. ***, **, * correspond to statistical significances at the 1, 5, and 10 percent levels, respectively. See Appendix for detailed variable definitions.

	(1)	(2)	(3)	(4)	(5)	(6)
	ΔLaborShare_Adj	ΔLaborShare_Adj	ΔLaborShare_Adj	ΔLaborShare_Adj	LaborShare_Adj	LaborShare_Adj
CEOCompShare					0.1619***	0.1036***
					(0.000)	(0.000)
ΔCEOCompShare	0.0759***	0.0751***	0.0759***	0.0751***		
	(0.000)	(0.000)	(0.000)	(0.000)		
Size			-0.0009	-0.0006		-0.2369***
			(0.842)	(0.912)		(0.000)
Market-to-Book			-0.0066	-0.0005		-0.0076
			(0.609)	(0.975)		(0.686)
Observations	29,000	29,000	29,000	29,000	33,000	33,000
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	No	Yes	No	Yes	No	No
Firm FE	No	No	No	No	Yes	Yes
R-squared	0.009	0.011	0.009	0.011	0.555	0.573
Adjusted R-squared	0.008	0.008	0.008	0.008	0.503	0.524

Table OA6: Operating Cash Flow, Investing Cash Flow, and Financing Cash Flow - Adjusted Labor Share

This table replicates Table 6 by replacing labor share with adjusted labor share in the dependent variables. All other variables are the same as those in Table 6. Standard errors are clustered at both the firm level and the year level, and p-values are reported in parentheses. ***, **, * correspond to statistical significances at the 1, 5, and 10 percent levels, respectively. See Appendix for detailed variable definitions.

Panel A: Operating Cash Flow						
	(1)	(2)	(3)	(4)	(5)	(6)
	ΔOperatingCF	ΔOperatingCF	ΔOperatingCF	ΔOperatingCF	OperatingCF	OperatingCF
ΔLaborShare_Adj	-0.4016***	-0.4042***	-0.4017***	-0.4044***		
	(0.000)	(0.000)	(0.000)	(0.000)		
LaborShare_Adj					-0.9300***	-0.8427***
					(0.000)	(0.000)
Market-to-Book			0.0708***	0.0770***		-0.0673**
			(0.000)	(0.000)		(0.012)
Size			-0.0084***	-0.0079***		0.4028***
			(0.000)	(0.000)		(0.000)
Observations	106,000	104,000	106,000	104,000	118,000	118,000
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	No	Yes	No	Yes	No	No
Firm FE	No	No	No	No	Yes	Yes
R-squared	0.310	0.313	0.312	0.314	0.818	0.826
Adjusted R-squared	0.310	0.312	0.312	0.314	0.792	0.800
Panel B: Investing Cash Flow						
	(1)	(2)	(3)	(4)	(5)	(6)
	ΔInvestingCF	ΔInvestingCF	ΔInvestingCF	ΔInvestingCF	InvestingCF	InvestingCF
ΔLaborShare_Adj	-0.0848***	-0.0842***	-0.0859***	-0.0854***		
	(0.000)	(0.000)	(0.000)	(0.000)		
LaborShare_Adj					-0.1196***	-0.1128***
					(0.000)	(0.000)
Market-to-Book			-0.0409	-0.0494***		-0.1188***

			(0.132)	(0.003)		(0.000)
Size			-0.0273***	-0.0269***		0.0235***
			(0.000)	(0.000)		(0.003)
Observations	106,000	104,000	106,000	104,000	118,000	118,000
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	No	Yes	No	Yes	No	No
Firm FE	No	No	No	No	Yes	Yes
R-squared	0.016	0.017	0.019	0.020	0.387	0.388
Adjusted R-squared	0.016	0.017	0.019	0.019	0.298	0.300

Panel C: Financing Cash Flow

	(1)	(2)	(3)	(4)	(5)	(6)
	ΔFinancingCF	ΔFinancingCF	ΔFinancingCF	ΔFinancingCF	FinancingCF	FinancingCF
ΔLaborShare_Ad	0.4735***	0.4763***	0.4753***	0.4786***		
	(0.000)	(0.000)	(0.000)	(0.000)		
LaborShare_Adj					0.8430***	0.7526***
					(0.000)	(0.000)
Market-to-Book			-0.0766*	-0.0455		0.4628***
			(0.077)	(0.233)		(0.000)
Size			0.0608***	0.0619***		-0.3893***
			(0.000)	(0.000)		(0.000)
Observations	106,000	104,000	106,000	104,000	118,000	118,000
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	No	Yes	No	Yes	No	No
Firm FE	No	No	No	No	Yes	Yes
R-squared	0.133	0.138	0.140	0.143	0.659	0.667
Adjusted R-squared	0.133	0.137	0.140	0.142	0.610	0.619

Table OA7: Adjusted Labor Share and Net Debt Issuance

This table replicates Table 7 by replacing labor share with adjusted labor share in the dependent variables. All other variables are the same as those in Table 7. Standard errors are clustered at both the firm level and the year level, and p-values are reported in parentheses. ***, **, * correspond to statistical significances at the 1, 5, and 10 percent levels, respectively. See Appendix for detailed variable definitions.

	(1) ΔNetDebtIssue	(2) ΔNetDebtIssue	(3) ΔNetDebtIssue	(4) ΔNetDebtIssue	(5) NetDebtIssue	(6) NetDebtIssue
LaborShare_Adj					0.0134***	0.0106***
					(0.000)	(0.000)
ΔLaborShare_Adj	0.0126***	0.0125***	0.0126***	0.0124***		
	(0.000)	(0.000)	(0.000)	(0.000)		
Size			-0.0018	-0.0051		0.0134**
			(0.787)	(0.179)		(0.011)
Market-to-Book			-0.0001	-0.0009		-0.0136***
			(0.938)	(0.378)		(0.000)
Observations	121,000	118,000	121,000	118,000	133,000	133,000
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	No	Yes	No	Yes	No	No
Firm FE	No	No	No	No	Yes	Yes
R-squared	0.005	0.006	0.005	0.006	0.303	0.304
Adjusted R-squared	0.00505	0.00463	0.00503	0.00465	0.202	0.203

Table OA8: Adjusted Labor Share and Capital Investment

This table replicates Table 8 by replacing labor share with adjusted labor share in the dependent variables. All other variables are the same as those in Table 8. Standard errors are clustered at both the firm level and the year level, and p-values are reported in parentheses. ***, **, * correspond to statistical significances at the 1, 5, and 10 percent levels, respectively. See Appendix for detailed variable definitions.

	(1) ΔCapitalExp	(2) ΔCapitalExp	(3) ΔCapitalExp	(4) ΔCapitalExp	(5) CapitalExp	(6) CapitalExp
LaborShare_Adj					0.0786***	0.0700***
					(0.000)	(0.000)
ΔLaborShare_Adj	0.0696***	0.0696***	0.0696***	0.0696***		
	(0.000)	(0.000)	(0.000)	(0.000)		
Size			-0.0047	-0.0038		0.0136***
			(0.133)	(0.265)		(0.001)
Market-to-Book			0.0043***	0.0040***		-0.0445***
			(0.000)	(0.000)		(0.000)
Observations	132,000	130,000	132,000	130,000	141,000	141,000
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	No	Yes	No	Yes	No	No
Firm FE	No	No	No	No	Yes	Yes
R-squared	0.136	0.138	0.138	0.139	0.634	0.639
Adjusted R-squared	0.136	0.137	0.138	0.138	0.583	0.589

Table OA9: Adjusted Labor Share and Changes in Cash Holdings

This table replicates Table 9 by replacing labor share with adjusted labor share in the dependent variables. All other variables are the same as those in Table 9. Standard errors are clustered at both the firm level and the year level, and p-values are reported in parentheses. ***, **, * correspond to statistical significances at the 1, 5, and 10 percent levels, respectively. See Appendix for detailed variable definitions.

	(1) ΔCashChange	(2) ΔCashChange	(3) ΔCashChange	(4) ΔCashChange	(5) CashChange	(6) CashChange
LaborShare_Adj					-0.0098***	-0.0070***
					(0.000)	(0.000)
ΔLaborShare_Adj	-0.0261***	-0.0259***	-0.0253***	-0.0249***		
	(0.000)	(0.000)	(0.000)	(0.000)		
Size			-0.0071	0.0205***		0.1331***
			(0.292)	(0.007)		(0.000)
Market-to-Book			0.0166***	0.0180***		0.0230***
			(0.000)	(0.000)		(0.000)
Observations	118,000	116,000	118,000	116,000	129,000	129,000
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	No	Yes	No	Yes	No	No
Firm FE	No	No	No	No	Yes	Yes
R-squared	0.005	0.007	0.007	0.008	0.164	0.167
Adjusted R-squared	0.00481	0.00573	0.00635	0.00706	0.0505	0.0532