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TAX BASED SWITCHING OF BUSINESS INCOME

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ABSTRACT

Discussions of genuine tax reform often focus upon broadening the individual and corporate tax bases and lowering tax rates. These discussions also tend to assume that reform will be “revenue neutral”, meaning that the new tax structure would generate the same receipts for the government as the old structure. Because firms can currently either incorporate or operate as a pass-through entity, one question that results from these discussions is how firms will react to the relative change in the corporate and non-corporate tax rates. Our results suggest that a 10 percent reduction in the tax wedge between the net corporate and individual tax rate will result in a 0.5 to 0.9 percent increase in the share of positive business income accruing to corporations.

I Introduction

Discussions of genuine tax reform often focus upon broadening the individual and corporate tax bases and lowering tax rates. These discussions also tend to assume that reform will be "revenue neutral", meaning that the new tax structure would generate the same receipts for the government as the old structure. Because firms can currently either incorporate or operate as a pass-through entity, one question that results from these discussions is how firms will react to the relative change in the corporate and non-corporate tax rates. As the wedge between the corporate and the non-corporate business tax rates changes, taxpayers have an incentive to move business income between the corporate and non-corporate business sectors. The dynamic revenue effect that results from this transfer of taxable income between the corporate and individual tax bases must be accounted for to ensure revenue neutrality. The size of this effect is a relatively open question, however, which is the motivation for this paper.

The theoretical effect that a change in the wedge between the corporate and non-corporate business tax rates has on the share of business income that accrues to corporations has been well known to economists for a long time, and there is a substantial literature that discusses it.[1] In fact, the literature that estimates the elasticity of taxable income for individual taxpayers implicitly includes the effect of individual tax rate changes on the flow of business income between the corporate and non-corporate sectors.[2] Because this literature only focuses on individual taxpayers and not businesses, it is impossible to decompose the elasticity into its constituent parts.[3] Although the broad elasticity of taxable income literature is well established, there have only been a couple of attempts to separately estimate the effect of changes in the wedge between the corporate and non-corporate business tax rates on the movement of business income between the corporate and individual tax bases. For simplicity, we call this this the elasticity of the corporate share of business income. Mackie-Mason and Gordon (1997) were the first to estimate this effect and used data from 1960 through 1987. Goolsbee (1998) did a similar analysis but used data from 1900 to 1939, because that period included more variation in the observed wedge between the corporate and non-corporate business tax rates. This paper updates the work of Mackie-Mason and Gordon (1997) using data from 1960 through 2012, but because we are motivated by the revenue estimating problems created by the transfer of business income between the corporate and individual tax bases, we discuss the effect that transactions costs should have on the elasticity of the corporate share of business income. In particular, we discuss the extent to which our empirical results are useful for estimating the revenue effects of major tax reform proposals which aim to drastically change the wedge between the corporate and non-corporate business tax rates. We also point out the

[1] See Mackie-Mason and Gordon (1997), Goolsbee (1998), Gordon and Slemrod (2000), Carroll and Joulfaian (1997), Romanov (2006), Slemrod (1995), Slemrod (1996), Kopczuk (2004), Slemrod (1998), Slemrod (1992), Sammartino and Weiner (1997), and Carroll and Hrung (2005).

[2] See Gruber and Saez (2002), Auten and Carroll (1999), and Carroll and Hrung (2005). It is important to correct for the inclusion of tax baseswitching when using the elasticity of taxable income to calculate the dynamic revenue effects of a marginal tax rate change.

[3] There are a number of possible ways for individual taxpayers to respond to changes in the marginal tax rate, including adjusting labor supply, changing the composition of total compensation between wages and fringe benefits, adjusting investment portfolios, adjusting itemized deductions, and moving income between the corporate and individual tax bases.

importance of correcting partnership data for the double-counting of income, and show its effect on empirical results.

Section II presents a brief model of how the wedge between the corporate and non-corporate business tax rates should affect firm decisions to incorporate or become a pass-through entity, which directly affects the share of business income that accrues to corporations. This section also discusses the effects that transactions costs may have on firm decisions, and whether the elasticity of the corporate share of business income should be linear, non-linear, or even discontinuous as the change in the tax wedge increases. Section III outlines the empirical strategy that we use to estimate the elasticity of the corporate share of business income, which is very similar to that used by Mackie-Mason and Gordon (1997) and Goolsbee (1998). We also discuss the data in this section, focusing particularly upon the recent increase in the importance of non-individual partners in U.S. partnerships and why this must be addressed to prevent the double counting of business income. Section III presents the empirical results, including a discussion of their implications for stylized tax reform proposals. Section IV discusses the limitations of the analysis, especially with respect to its usefulness in estimating the revenue effects of tax reform proposals that include large changes in the tax wedge between corporate and non-corporate business income.

II A Firm's Choice of Business Structure

We present a simple model of a firm's choice of business structure following the work of Mackie-Mason and Gordon (1997) and Goolsbee (1998). The idea behind the model is that taxpayers will choose to incorporate only if the benefit to doing so is greater than the cost. A common assumption in models of a firm's choice of business form is that there are non-tax related benefits to incorporation. The reason for this is that corporate income is double taxed in the U.S. to such an extent that the net corporate tax rate has been significantly higher than the non-corporate business tax rate since at least the late 1950s. Thus, without a non-tax benefit to incorporation, it is hard to imagine why any business would be incorporated. It is generally argued that limited liability and access to broad capital markets are two important non-tax benefits to incorporation, although limited liability can now be gained through S-corporation status and some partnership forms. After outlining the model, we then discuss the potential role that transactions costs may play in an existing firm's decision to switch business form, and how this might affect the overall shape of the elasticity of the corporate share of business income.

1 A Simple Model of a New Firm's Choice of Business Structure

Because corporate business income is double taxed, the net tax rate on corporate business income is a function of the corporate tax rate(τ_c), the individual capital gains tax rate(τ_{cg}), and the individual dividends tax rate(τ_d). Because only a portion of corporate income is paid out as dividends and unrealized capital gains benefit from tax deferral, the net corporate tax rate (τ_{nc}) can be written:

(1) $$\tau_{nc} = \tau_c + (1 - \tau_c)(\alpha \tau_d + (1 - \alpha)\beta \tau_{cg})$$

where α is the share of corporate income paid out as dividends and β is a measure of the benefits of capital gains deferral.

Assume that a firm earns income I regardless of its business structure. Further assume that corporate firms also receive a non-tax related benefit G. The taxpaying owners of a firm will choose to incorporate when:

(2) $$G + (1 - \tau_{nc})I \geq (1 - \tau_i)\, I, (2)$$

where τ_i is the individual income tax rate. Rearranging this expression shows that the decision to incorporate is a function of the wedge between the net corporate and individual tax rates:

(3) $$\frac{G}{I} \geq \tau_{nc} - \tau_i = W,$$

where W is the aforementioned tax wedge.

Another useful way to express the idea of the tax wedge is as the additional after-tax benefit of a dollar non-corporate business income relative to a dollar of corporate business income. Defining this expression to be T, it can be written as:

(4) $$T = \frac{(1 - \tau_i) - (1 - \tau_{nc})}{1 - \tau_{nc}} = \frac{W}{1 - \tau_{nc}}$$

Either way one thinks about it, the model suggests that the share of business income accruing to corporations should be responsive to changes in W (or T). It is this relationship that we attempt to estimate in the Results section.

2 Transactions Costs of Changing Business Structure

The simple model described above may be useful for thinking about the choices facing a new firm, but the situation facing existing firms may be more complex. First, there are likely to be transactions costs to switching business form for already existing firms. While the transactions costs for switching from pass-through status to corporate status may have been diminished somewhat with the introduction of "check-the-box" regulations, the transactions costs involved in turning a publicly held corporation into a pass-through entity are likely to be quite large.

Because a large percentage of corporate income is earned by a relatively small number of firms, transactions costs could discourage the switching of much of this corporate income to non-corporate income even when increases in W are relatively large. At some point, though, increases in W are likely to become so large that the tax savings from going private would cover the transactions costs of switching out of the corporate form. It is at least plausible for many corporations to bunch around such a point, creating the possibility of a tipping point whereby a substantial fraction of corporations would suddenly switch structure. That is, at some point the tax wedge, W, could be so large that most taxpaying owners of existing corporations would

prefer to change their business structure to pass-through form. These ideas could be formalized in a multi-period model where a firm makes an initial decision about its structure in period with imperfect information about the tax structure in subsequent period. In later periods the firm would have to choose whether or not to switch its structure given changes in the tax structure and the transactions costs associated with the switch.

If we suppose that new firms do not face the same transactions costs problems that existing firms do, then we should expect new firms to respond to small changes in the business tax wedge, while existing firms would not respond until the change in the tax wedge was larger. This line of reasoning suggests that the effect of a change in the tax wedge, W, on the share of business income going to corporations should not be linear, but rather non-linear and possibly discontinuous. If one thinks of the current state of the world as an equilibrium, we might expect small changes in the tax wedge to produce small shifts in the share of business income going to corporations as new firms change their incorporation behavior. This behavior was explored in Carroll and Joulfaian (1997). As changes in the tax wedge get larger, however, we should see the shifting of business income increase as larger firms respond, until some point after which most of the shifting has occurred. In addition, because (as we argue above) the transactions costs are likely to be larger for corporations than for pass-through entities, the tax wedge effect may not be symmetrical, meaning that it might be easier for pass-through entities to switch status than for corporations.

Figure I presents a graphical representation of these ideas. The x-axis measures the tax wedge between corporate and non-corporate business income, W. Assume that $W = 0.09$ is the current tax wedge or steady-state. The y-axis measures the percentage of business income that is from corporations. The figure shows that at the current tax wedge, $W = 0.09$, 48 percent of business income goes to the corporate sector. The figure is drawn to show that small changes in the tax wedge, say from 0.06 to point 0.12, result in only small changes in the percentage of income that goes to corporate firms. As the change in the tax wedge increases, however, the change in the percentage of business income going to corporations accelerates, becoming almost a cliff. Although this is only a rough representation of the ideas discussed above, it hopefully gives an indication of the dynamics that are possible as the result of significant changes in the business tax structure.

One last issue that should be discussed is whether or not all firms would incorporate (or become pass-through entities) if the tax wedge was small (or large) enough. Figure I is drawn so that even for very small or very large tax wedges, not all business income is in either the corporate or non-corporate sectors. One rationale for such behavior is that there may be small businesses that find it prohibitively expensive in terms of transactions costs to be a corporation (think about the bookkeeping costs, for example). Alternatively, there may be some very large corporations that would have trouble becoming a pass-through entity that could support its structure. Fortunately, it seems unlikely that policymakers would legislate such a lopsided tax wedge. If policymakers were interested in a real overhaul of business taxation, it is more likely that they would legislate a single tax structure for all businesses.[4]

[4]A large change in the corporate rate might induce entities to 'check the box' and as a result, few if any firms would structure as a pass through.

Although we have no concrete idea about the shape of the elasticity of the corporate share of business income to the tax wedge between corporate and non-corporate business income, we think the above discussion provides a useful framework within which to consider the empirical results. As we will discuss in more detail below, there has not been much variation in the business tax wedge in the U.S. over the past fifty years, which makes it impossible to estimate the elasticity of the corporate share of business income to the tax wedge for changes in the tax wedge that are outside of the observed range. The implications of all of this will be discussed further in the Limitations section.

III Empirical Strategy

1 Empirical Model

Our estimation strategy is similar to that of Mackie-Mason and Gordon (1997) and Goolsbee (1998). Defining C to be the percentage of business income (or loss) that is in the corporate sector, we assume that it is a function of the wedge between the corporate and non-corporate business tax rates (W), a function of time (t), the percentage change in gross domestic product (GDP), and the rate of inflation (i):

$$C_t = \alpha_0 + \alpha_1 t + \alpha_2 t^2 + \alpha_3 GDP_t + \alpha_4 i_t + \gamma W_t + \epsilon_t, \quad (5)$$

where ϵ is a normally distributed error term. The coefficient on the tax wedge, γ, should be negative when C measures the corporate share of positive business income, because a larger tax wedge should imply that a smaller share of business income goes to corporations. γ should be positive when C measures the corporate share of negative business income, because a larger tax wedge should imply that a larger share of business income goes to corporations. The real GDP and inflation measures are meant to control for macroeconomic fluctuations that affect the distribution of business income across the corporate and non-corporate sectors. The time trend is intended to control for changes in the non-tax related benefits of incorporation, such as the benefit from limited liability or better access to capital markets.

It should be noted that at least some of the time series data in equation 5 is likely to be non-stationary. Thus, spurious correlation is a potential problem. An alternative specification would difference each data series until stationarity is achieved and estimate the following regression:

$$\Delta C_t = \beta_0 + \beta_1 \Delta GDP_t + \beta_2 \Delta i_t + \gamma \Delta W_t + \nu_t, \quad (6)$$

where $\Delta C_t = C_t - C_{t-1}$ and ν is a normally distributed error term. Again, γ ought to be negative (positive) when C measures the corporate share of positive (negative) business income, because an increase in the tax wedge should cause a decrease (increase) in the share of positive (negative) business income going to corporations.

2 Data Sources and Issues

2.1 Business Income and Loss

We collected income and loss data by type of business entity from the Statistics of Income Bulletin and other various Internal Revenue Service publications for the period 1959 through 2012. We group businesses into four groups: C-corporations, S-corporation, partnerships, and sole proprietorships. We also split the data into firms with positive income and firms with negative income. These data are presented in figures II and III. The figure shows that the percentage of business income accruing to corporations has declined steadily since the mid-1980's, while the share going to partnerships has increased gradually over the same period.

One problem with the data in figures 2 and 3 is that there is likely to be some double-counting of income due to the fact that some firms may be partial owners of other firms. Partnership income is likely to be the biggest problem. Because partnerships, C-corporations, and S-corporations can all be partners in a partnership, any partnership income that is distributed to these types of partners will be double-counted. To see if this double-counting problem bias's our estimates, we use the Statistics of Income (SOI) Partnership Tax Files for the years 1988 through 2012 to recalculate income and loss after excluding payments to corporate partners, partnership partners, and exempt organization partners.[5] The intent is to include only income that "passed-through" to individual income tax returns, and thus faced the individual income tax.

While there is also a double-counting issue with C-corporations because they pay dividends to one another, this double-counting is likely to be small, because corporations receive a "dividends received deduction" that is used to off-set much of the double-counting.[6] There should not be a double-counting problem with S-corporation income, because, in general, only individuals may be shareholders in an S-corporation. The same is true of sole proprietorships.

Figures IV and V present the data after correcting for the double-counting of partnership income after 1987.[7] Comparing figure IV to figure II shows that for positive income there is very little difference between the published SOI data and the corrected data in 1988, meaning that we do not have worry about a seam problem when combining the pre-1988 published SOI data with the post-1988 corrected data. Correcting the partnership data does seem to have a significant effect on the share of business income that accrues to the various business forms, especially after 1995. Unfortunately, a comparison of figures III and V shows that correcting for double-counting causes a significant change in the shares of losses going to the various business types starting in 1988. In particular, the share of losses going to partnerships decreases significantly and the share going to corporations increases significantly in the first year of corrected data. Because of this seam problem, we will only use the corrected data for losses for the years 1988 to 2012.

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[5] The income definition we use is line 1of the Analysis of Net Income on Form 1065 and the associated analysis by partner type (line 2).

[6] The dividends received deduction is between 70 percent and 100 percent of the dividends received, depending upon how much of the dividend-paying corporation is owned by the dividend-receiving corporation.

[7] We were only able to correct the data starting in 1988 because prior to that distributed income was not attributed to the various types of partners.

Descriptive statistics for the sample are presented in table I. We present the descriptive statistics for three periods: (i) 1959-1986; (ii) 1986-2012; and (iii) 1959-2012. Between 1959 and 1986, corporations received 65% of positive business income, but between 1986 and 2012 corporations received only 49% of positive business income. The percentage of positive business income going to sole proprietorships also decreased across the two sub-periods (from an average of 22% to 16%) while share going to S-corporations (2% to 12%) and partnerships (11% to 23%) both increased.[8]

This suggests that the largest change in the decision to incorporate occurred with the 1986 tax reform but the share of corporate income remains relatively the same. The relative share of positive business income going to partnerships and S-corporations have been more volatile in the post 1986 time period. As one might expect, the largest variation occurs in the share of business losses accruing to the various business types.

2.2 Tax Rates

As our main measure of the individual marginal tax rate, τ_i, we use the average marginal tax rate for the top 1 percent of taxpayers by income, as computed by Emmanuel Saez (2004). Saez's data series stops in 2000, so for 2001 through 2012 we use the U.S. Treasury Department's Individual Tax Model (ITM) to calculate the MTR for the top 1 percent of taxpayers by income.[9] In our sensitivity analysis we also use the average marginal tax rate for the top 5 percent and the top 0.5 percent of taxpayers by income as computed by Saez (2004), with the post-2000 data also augmented as above. The individual marginal tax rate series is also used as the marginal tax rate on dividends, τ_d, through 2002. After 2002 we use the 15 percent marginal rate on dividends that was legislated by JGTRRA 2003.[10,11] For the marginal tax rate on capital gains we use the effective tax rate applying to high-income taxpayers, including the effects of provisions that alter effective rates for significant amounts of gains, including capital gains exclusions (1959-1986).[12]

To calculate the net corporate tax rate, τ_{nc} , we need measures of the share of corporate income paid out as dividends (α in equation 1) and the value of capital gains deferral (β in equation 1). To measure α we use data from the National Income and Products Accounts (NIPA) published by the Bureau of Economic Analysis (BEA). Specifically, we calculated the share of after-tax corporate profits that were paid out as dividends.[13] As figure VI shows, this series is not particularly smooth, which is more likely due to year-to-year fluctuations in corporate profits as opposed to year-to-year fluctuations in dividends which tend to be much smoother. Instead of using this series as is, we assume that the appropriate measure of α is what is expected by taxpayers, which should be much smoother than the actual dividend payout series in figure VI, because individuals will expect averages as opposed to actuals. Thus, we use a regression-smoothed estimate of the dividend payout ratio where only time and time-squared are

[8] The increase in the prevalence of partnerships is discussed in detail in DeBacker and Prisinzano (2015).
[9] For more information on the U.S. Treasury Department's individual tax model, see Cilke and Wyscarver (1987).
[10] The Jobs and Growth Tax and Reconciliation Relief Act (JGTRRA) of 2003 lowered the top marginal tax rate on long-term capital gains and dividends to 15 percent, among other tax changes.
[11] The American Taxpayer Relief Act of 2012 did not extend the 15% rate of Capital Gains and Dividends.
[12] These were provided by Gerald Auten.
[13] These are lines 19 and 20 of NIPA table 1.10. “Gross Domestic Income by Type of Income”.

included in the regression. In our sensitivity analysis we also use the actual NIPA dividend payout series and the average dividend payout ratio over the period 1959 to 2012 (51 percent).

In the literature, it is often assumed that the benefits of capital gains deferral, β, is 0.25. This value is attributed to Poterba et al (1983), who make a "quite conservative assumption" that the effective rate on capital gains is roughly 20 to 25 percent of the statutory rates. We follow this convention and use 0.25 as our measure of β in the main results, but use alternate assumptions in our sensitivity analysis to demonstrate its effect on the results.

III Results

We present a number of sets of results below. First, we estimate the effect of the tax wedge on the corporate share of business income using equation 5 for both the published SOI data and the SOI data corrected for the double-counting in the partnerships data. Second, to verify that the results are the not affected by spurious correlation from non-stationary data, we estimate the effect of changes in the tax wedge on the change in the corporate share of business income using equation 6 for both sets of data. Following Mackie-Mason and Gordon (1997), we perform separate regressions and present separate results for the corporate share of positive business income and the corporate share of negative business income.

1 Corporate Share Regressions

We estimate equation 5 using a regression procedure that corrects for first-order serial correlation in the residuals. Tables II.A and II.B present the estimates for positive income using both the Prais-Winsten correction procedure and the Cochrane-Orcutt correction procedure. Regardless of which data and serial correlation correction method are used, the coefficient estimate on the tax wedge, W, is negative, as theory predicts, and it is statistically significantly different from zero at the 95 percent confidence level. The negative coefficient estimate means that an increase in the tax wedge (perhaps due to an increase in net corporate tax rate relative to the individual marginal tax rate) decreases the share of business income accruing to corporations. The implied elasticities associated with the estimates are given at the bottom of the table. The elasticity of -0.0942 using the corrected SOI data and the Prais-Winsten correction tells us that a 10 percent increase in the tax wedge should decrease the share of business income going to corporations by .942 percent.

Comparing the results using the original data and the corrected data shows that the coefficient estimate and the implied elasticity are larger using the corrected data. This suggests that the effect of the tax wedge on the percentage of positive business income going to corporations is stronger than the published SOI data suggests. The elasticity using the published SOI data is roughly 14 percent smaller than the elasticity using the corrected data. If one were to use the elasticity calculated from the published SOI data to estimate how much income should move between the corporate and non-corporate business sectors for a given tax change, he or she would understate the amount.

Tables III.A and III.B presents similar results for the share of business losses accruing to corporations. The coefficient estimates are positive, as theory predicts, but they are not

statistically significantly different from zero at the 95 percent confidence level using either data. The elasticity estimate of 0.0563 using the corrected SOI data suggests that a 10 percent increase in the tax wedge, W, would lead to a 0.56 percent increase in the share of business losses accruing to corporations. Comparing the results using the published SOI data and the corrected SOI data show that the estimates using the published data are roughly equal but the estimates are imprecise.

2 Change in the Corporate Share Regressions

As a check to see that the results presented above are not due to spurious correlation, we tested all of the variables for stationarity using Dickey-Fuller tests. The corporate share of business income, C, the tax wedge, W, and the percent change in inflation, i, were all non-stationary, which suggests that we should worry about spurious correlation. These variables were made stationary by first-differencing. We then estimated equation 6 with a first-order auto-regressive specification.

Tables IV.A and IV.B present the estimates for positive business income using both the original SOI data and the SOI data corrected for double-counting in the partnership data. As was the case for the results in section 1, the coefficient estimate on the change in the tax wedge,ΔW, is negative as theory predicts, and it is statistically significantly different from zero at the 95 percent confidence level. The negative coefficient estimate means that a positive change in the tax wedge (perhaps due to an increase in the net corporate tax rate relative to the individual marginal tax rate) leads to a negative change in the percentage of business income accruing to corporations. The implied elasticities associated with the estimates are given at the bottom of the table. The elasticity of -0.0537 using the corrected SOI data tells us that a 10 percent increase in the tax wedge should decrease the share of business income going to corporations by 0.54 percent. It turns out that the elasticity estimates ignoring non-stationarity are considerably higher than the elasticities that address stationarity. Although we conclude that spurious correlation does not seem to be driving the results presented in section 1, it does appear to bias the results. Thus, we consider the estimates in this section to be more reliable.

As was the case in section 1, comparing the results using the original data and the corrected data in tables IV.A and IV.B show that the coefficient estimate and the implied elasticity are larger using the corrected data. As we stated above, if one were to use the elasticity calculated from the published SOI data to estimate how much income should move between the corporate and non-corporate business sectors for a given tax change, he or she would understate the amount.

It should be stressed that using published SOI data without correcting for the double-counting in the partnership data yields elasticity estimates that are too small. In addition, ignoring non-stationarity also yields elasticity estimates that are too small. However, looking across the specifications and data we can see a naïve approach would yield an elasticity that is too high. Using the published SOI data and ignoring non-stationarity (table II.A) yields an elasticity of -0.0826, while using the corrected SOI data and addressing stationarity (table IV.B) yields an elasticity of -0.0537. The biased elasticity estimate is roughly 54 percent larger than the unbiased estimate.

Tables V.A and V.B presents similar estimates for the share of business losses that accrue to corporations. Addressing stationarity in the published SOI data yields a parameter estimate on W that is not statistically significantly different from zero at the 95 percent confidence level, although the estimate does have the correct sign according to economic theory.

3 Stylized Tax Reform Example

Under 2012 law, the top corporate was 35%; the share of corporate dividends paid out of corporate profits after tax was 40.4%; the marginal dividend and capital gains rates were 15% and the top marginal individual rate was 31.5. The net corporate rate was 40.9% and the tax wedge was .0935.[14] If the corporate rate were to drop by 10 percentage points to 25%, the new net corporate rate would 31.8% and the tax wedge would be .0025. Using the estimated effect from table IV.B, this implies an additional 3.4% of total business income would accrue to corporations. In 2012, there was 2.61 trillion of net business income implying almost 90 billion would accrue to corporate form. The amount is higher if only positive income is considered (115 billion).

IV Limitations

The empirical work in section IV suggests that a 10 percent reduction in the tax wedge between the net corporate and individual tax rate, W, should result in a 0.5 to 0.9 percent increase in the share of positive business income accruing to corporations. The applicability of this estimate to future changes in the tax wedge, W, must be understood in terms of the range of changes in W that have been observed over the past fifty years and the range of changes in W that policymakers hope to achieve (or at least propose).

Unfortunately, over the past fifty years or so the tax wedge has varied between 0.04 and 0.21, with the maximum wedge occurring in 1963 and the smallest wedge occurring in1979. The majority of changes in the tax wedge have been no more than .02 in absolute value. More importantly, no change in the tax wedge has ever been permanent, meaning that there has not been much of an incentive for firms to change their incorporation status in anticipation of long-term changes. The closest thing to permanent change has been the Bush tax cuts of 2001 and 2003, but these tax changes were allowed to expire in 2012.

It is also the case that over the past fifty years the U.S. has not seen the tax wedge turn negative, meaning that the net corporate rate is below the individual rate, but this is exactly what some policymakers have recently proposed. Predicting the effects of reducing the tax wedge to 0 or even lower is impossible given the limited data we observe over the past fifty years. It is not possible to estimate the non-linear effects of the tax wedge on the corporate share of positive business income.

[14] This calculation assumes β = .25.

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TABLES

Table I: Summary Statistics

			Income	C Corp	S Corp	Sole Prop	Partnership
1959-1986	*Positive*	Mean	240.919	0.651	0.023	0.215	0.112
		SD	148.850	0.037	0.009	0.032	0.020
	Negative	Mean	-67.680	0.561	0.048	0.145	0.246
		SD	78.654	0.075	0.009	0.038	0.096
1986-2012	*Positive*	Mean	1758.929	0.494	0.124	0.155	0.227
		SD	908.549	0.066	0.030	0.038	0.069
	Negative	Mean	-526.146	0.499	0.112	0.070	0.319
		SD	290.846	0.054	0.018	0.013	0.049
Total	*Positive*	Mean	971.813	0.575	0.071	0.186	0.167
		SD	993.383	0.095	0.055	0.046	0.076
	Negative	Mean	-288.423	0.531	0.079	0.109	0.281
		SD	310.675	0.072	0.035	0.047	0.085

Table II.A: Corporate Share of Positive Business Income

	OLS		Prais-Winsten		Cochrane-Orcutt	
Tax Wedge	**-0.5903**	**-0.5169**	**-0.3714**	**-0.3627**	**-0.3974**	**-0.3887**
	0.093	0.097	0.123	0.121	0.138	0.137
Post 1986	.	**-0.0667**	.	-0.0131	.	-0.0109
		0.027		0.014		0.014
Time	0.002223	0.0024	**0.0060**	**0.0060**	0.0035	0.0037
	0.002	0.002	0.003	0.003	0.006	0.006
Time-Squared	-0.0001	-0.0001	-0.00015	-0.00015	-0.0001	-0.0001
	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002
GDP	-0.00002	-0.00002	0.000000	0.000000	-0.000002	-0.000002
	0.00002	0.00002	0.00003	0.00003	0.00003	0.00003
Inflation	0.000492	0.0009	-0.0019	-0.001815	-0.0009	-0.0009
	0.0011	0.0011	0.0017	0.0017	0.0025	0.0025
Intercept	**0.7361**	**0.7153**	**0.7110**	**0.7080**	**0.7229**	**0.7194**
	0.0176	0.0177	0.0315	0.0307	0.0387	0.0378
ρ			0.7151	0.7102	0.7088	0.7047
D-W Statistic			1.63	1.62	1.63	1.62
Elasticity	**-0.1345**	**-0.1178**	**-0.0846**	**-0.0826**	**-0.0905**	**-0.0886**

Table II.B: Corporate Share of Positive Business Income

Adjusted Data

	OLS		Prais-Winsten		Cochrane-Orcutt	
Tax Wedge	**-0.6323**	**-0.5634**	**-0.4787**	**-0.4573**	**-0.5175**	**-0.4942**
	0.077	0.082	0.102	0.101	0.111	0.111
Post 1986	.	**-0.0626**	.	-0.0313	.	-0.029050
		0.022		0.018		0.018
Time	0.001984	0.0022	0.0043	0.0043	0.0017	0.0020
	0.002	0.002	0.002	0.002	0.004	0.004
Time-Squared	0.0000	0.0000	-0.00003	-0.00003	0.0000	0.0000
	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002
GDP	-0.00002	-0.00002	-0.000016	-0.000017	-0.000018	-0.000019
	0.00002	0.00002	0.00003	0.00003	0.00003	0.00003
Inflation	0.000001	0.0004	-0.0014	-0.001111	-0.0003	-0.0002
	0.0011	0.0010	0.0014	0.0014	0.0019	0.0019
Intercept	**0.7495**	**0.7299**	**0.7325**	**0.7248**	**0.7438**	**0.7352**
	0.0144	0.0149	0.0253	0.0244	0.0275	0.0268
Rho			0.6059	0.5893	0.5915	0.5764
D-W Statistic			1.65	1.62	1.64	1.64
Elasticity	**-0.1303**	**-0.1161**	**-0.0986**	**-0.0942**	**-0.1066**	**-0.1018**

Table III.A: Corporate Share of Negative Business Income

	OLS		Prais-Winsten		Cochrane-Orcutt	
Tax Wedge	**0.3476**	**0.3777**	0.2121	0.2630	0.0690	0.1116
	0.194	0.215	0.206	0.195	0.216	0.213
Post 1986	.	-0.0274	.	**-0.0675**	.	-0.043962
		0.072		0.028		0.027
Time	-0.007602	-0.0075	-0.0090	-0.0084	-0.0365	-0.0348
	0.004	0.004	0.006	0.006	0.022	0.022
Time-Squared	0.0001	0.0001	0.00022	0.00023	0.0004	0.0004
	0.0002	0.0002	0.0002	0.0002	0.0003	0.0003
GDP	0.00000	0.00000	-0.000040	-0.000042	-0.000050	-0.000050
	0.00004	0.00004	0.00004	0.00004	0.00004	0.00004
Inflation	-0.000618	-0.0005	0.0034	0.003463	0.0113	0.0110
	0.0021	0.0021	0.0039	0.0039	0.0072	0.0074
Intercept	**0.6118**	**0.6032**	**0.5643**	**0.5519**	0.7576	**0.7399**
	0.0377	0.0438	0.0705	0.0685	0.1473	0.1548
Rho			0.8485	0.8503	0.8115	0.8122
D-W Statistic			1.40	1.43	1.11	1.11
Elasticity	**0.0744**	**0.0808**	**0.0454**	**0.0563**	**0.0148**	**0.0239**

Table IV.A: Change in Corporate Share of Positive Business Income

	OLS		Prais-Winsten		Cochrane-Orcutt	
Tax Wedge	**-0.3206**	**-0.3210**	**-0.3100**	**-0.3096**	**-0.3070**	**-0.3073**
	0.141	0.143	0.139	0.141	0.139	0.142
Post 1986	.	-0.0130	.	-0.0141	.	-0.013000
		0.018		0.018		0.019
Time	-0.001059	-0.0008	-0.0010	-0.0007	-0.0011	-0.0008
	0.001	0.001	0.001	0.001	0.001	0.001
Time-Squared	0.0000	0.0000	0.00001	0.00001	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
GDP	0.00001	0.00001	0.000013	0.000013	0.000013	0.000013
	0.00004	0.00004	0.00004	0.00004	0.00004	0.00004
Inflation	-0.001751	-0.0024	-0.0021	-0.002808	-0.0021	-0.0028
	0.0044	0.0045	0.0046	0.0047	0.0046	0.0047
Intercept	0.0118	0.0104	0.0117	0.0102	0.0130	0.0113
	0.0060	0.0063	0.0063	0.0066	0.0075	0.0081
Rho			0.0559	0.0582	0.0563	0.0582
D-W Statistic			1.98	1.98	1.98	1.98
Elasticity	**-0.0285**	**-0.0285**	**-0.0275**	**-0.0275**	**-0.0273**	**-0.0273**

Table IV.B: Change in Corporate Share of Positive Business Income

Adjusted Data

	OLS		Prais-Winsten		Cochrane-Orcutt	
Tax Wedge	**-0.3817**	**-0.3821**	**-0.3789**	**-0.3788**	**-0.3780**	**-0.3786**
	0.126	0.127	0.125	0.127	0.125	0.127
Post 1986	.	-0.0148	.	-0.0156	.	**-0.0155**
		0.018		0.019		0.019
Time	-0.000377	-0.0001	-0.0004	-0.0001	-0.0004	-0.0001
	0.001	0.001	0.001	0.001	0.001	0.001
Time-Squared	0.0000	0.0000	0.00000	0.00000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
GDP	-0.00001	-0.00001	-0.000010	-0.000009	-0.000010	-0.000009
	0.00004	0.00004	0.00004	0.00004	0.00004	0.00004
Inflation	-0.001965	-0.0027	-0.0021	-0.002822	-0.0021	-0.0028
	0.0043	0.0044	0.0044	0.0045	0.0044	0.0046
Intercept	**0.0078**	0.0062	0.0078	**0.0062**	**0.0082**	0.0062
	0.0060	0.0062	0.0061	0.0064	0.0073	0.0078
Rho			0.0267	0.0309	0.0268	0.0309
D-W Statistic			1.98	1.98	1.98	1.98
Elasticity	**-0.0541**	**-0.0542**	**-0.0537**	**-0.0537**	**-0.0536**	**-0.0537**

Table V.A: Change in Corporate Share of Negative Business Income

	OLS		Prais-Winsten		Cochrane-Orcutt	
Tax Wedge	0.1745	0.1764	0.0882	0.0886	0.0474	0.0475
	0.232	0.238	0.210	0.212	0.207	0.208
Post 1986	.	0.0572	.	0.0402	.	0.0079
		0.040		0.052		0.044
Time	0.0000	-0.0011	-0.0015	-0.0020	0.0014	0.0013
	0.002	0.002	0.003	0.003	0.002	0.002
Time-Squared	0.0000	0.0000	0.00003	0.00003	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
GDP	-0.00005	-0.00005	-0.000051	-0.000052	-0.000057	-0.000057
	0.00005	0.00005	0.00006	0.00006	0.00005	0.00006
Inflation	0.0073	0.0101	0.0138	0.014607	0.0136	0.0137
	0.0065	0.0070	0.0071	0.0074	0.0068	0.0071
Intercept	-0.0059	0.0003	0.0030	0.0061	**-0.0372**	**-0.0358**
	0.0193	0.0209	0.0338	0.0342	0.0156	0.0169
Rho			0.3497	0.3206	0.3311	0.3253
D-W Statistic			1.98	1.98	1.98	1.98
Elasticity	**0.0049**	**0.0050**	**0.0025**	**0.0025**	**0.0013**	**0.0013**

Table V.B: Change in Corporate Share of Negative Business Income

Adjusted Data

	OLS		Prais-Winsten		Cochrane-Orcutt	
Tax Wedge	0.1468	0.1501	0.0349	0.0694	-0.0093	0.0098
	0.213	0.223	0.198	0.212	0.195	0.202
Post 1986	.	**0.1013**	.	0.0841	.	0.0501
		0.050		0.059		0.054
Time	0.000192	-0.0017	-0.0010	-0.0019	0.0017	0.0007
	0.002	0.002	0.003	0.003	0.002	0.002
Time-Squared	0.0000	0.0000	0.00002	0.00003	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
GDP	-0.00003	-0.00003	-0.000032	-0.000034	-0.000038	-0.000040
	0.00004	0.00004	0.00004	0.00004	0.00004	0.00004
Inflation	0.006832	0.0118	0.0123	0.013461	0.0123	0.0129
	0.0060	0.0068	0.0069	0.0072	0.0066	0.0070
Intercept	-0.0080	0.0030	-0.0011	0.0046	-0.0381	-0.0285
	0.0198	0.0207	0.0318	0.0276	0.0149	0.0134
Rho			0.2965	0.1819	0.2872	0.2188
D-W Statistic			1.98	1.98	1.98	1.98
Elasticity	**0.0032**	**0.0033**	**0.0008**	**0.0015**	**-0.0002**	**0.0002**

FIGURES

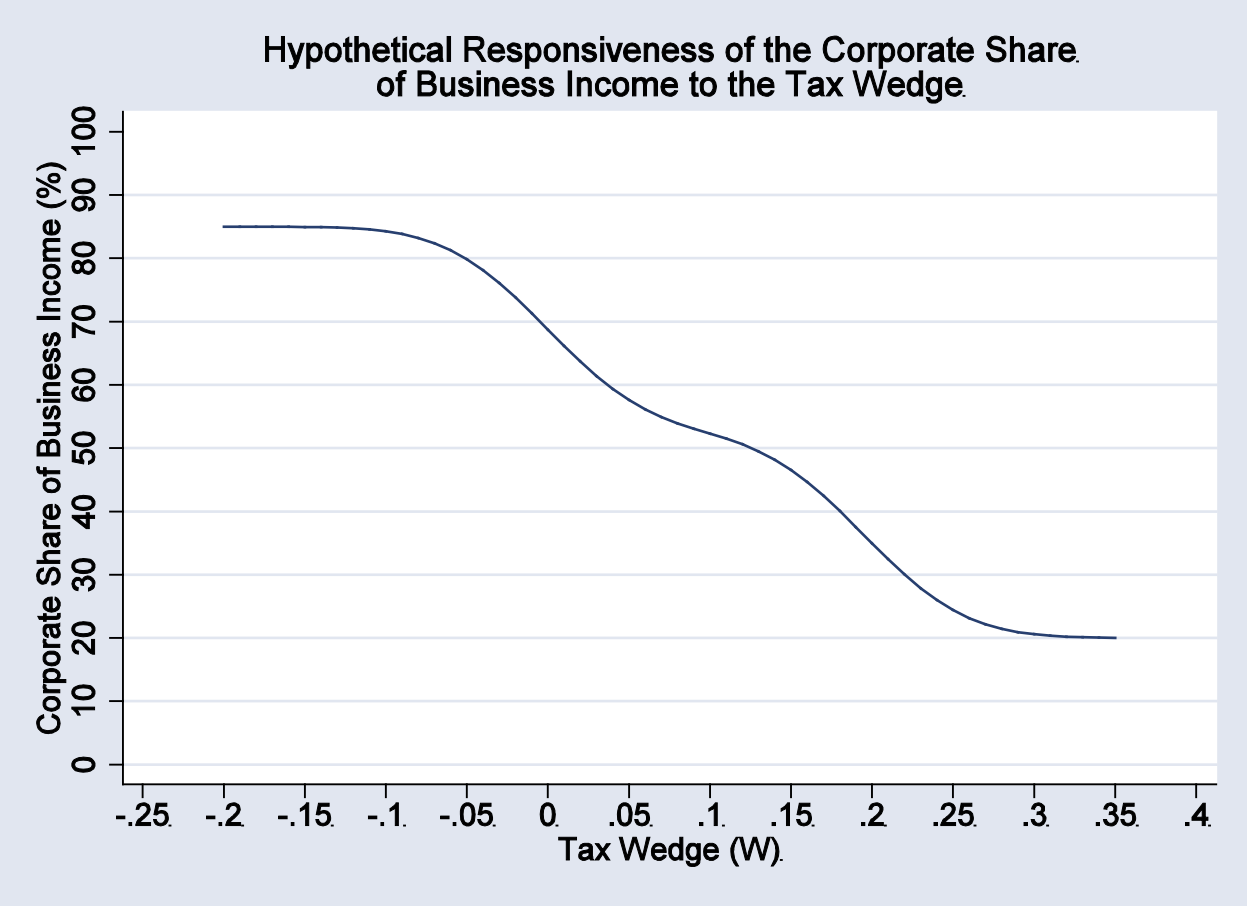

Figure I

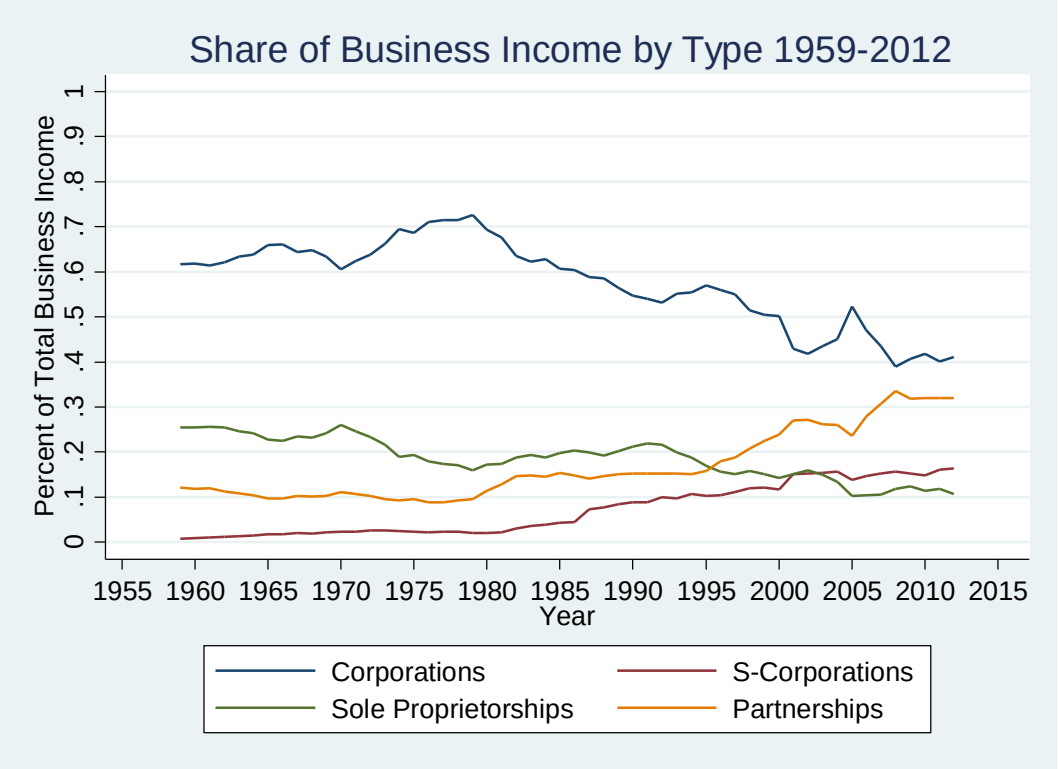

Figure II

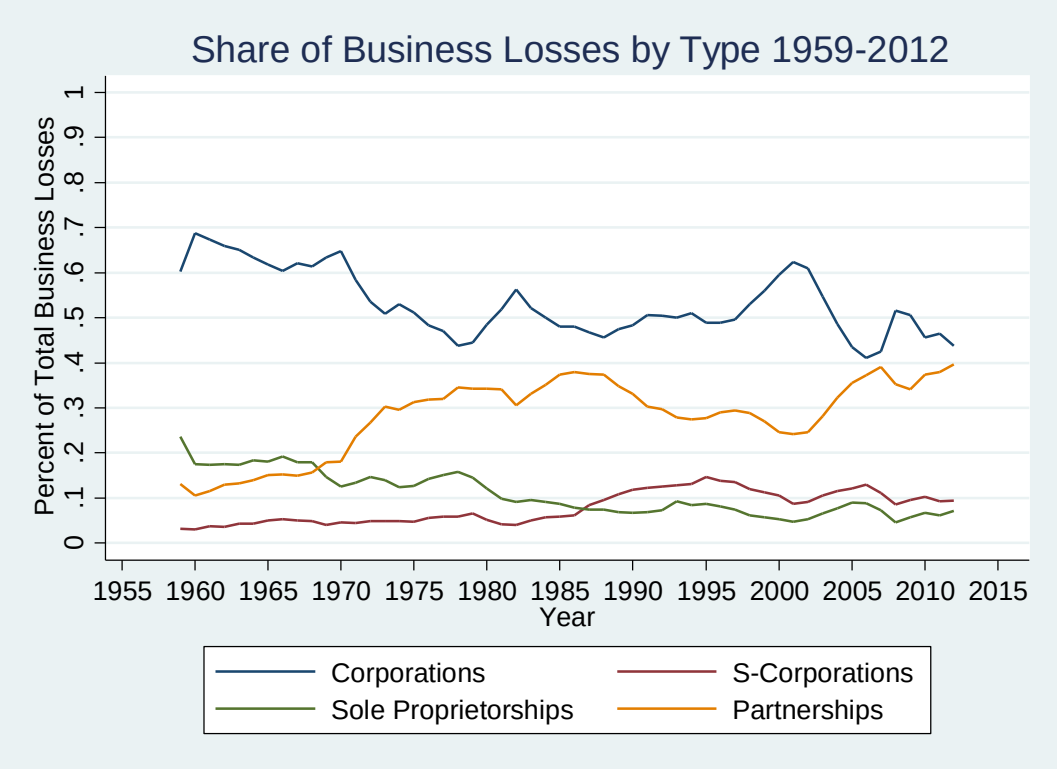

Figure III

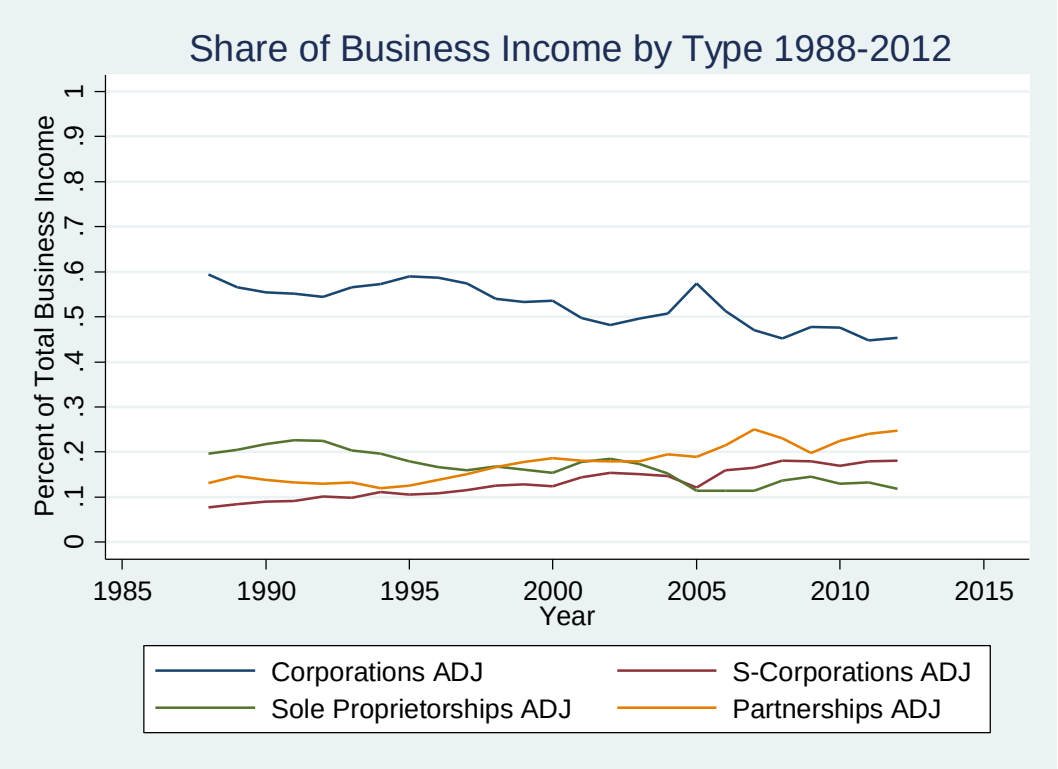

Figure IV

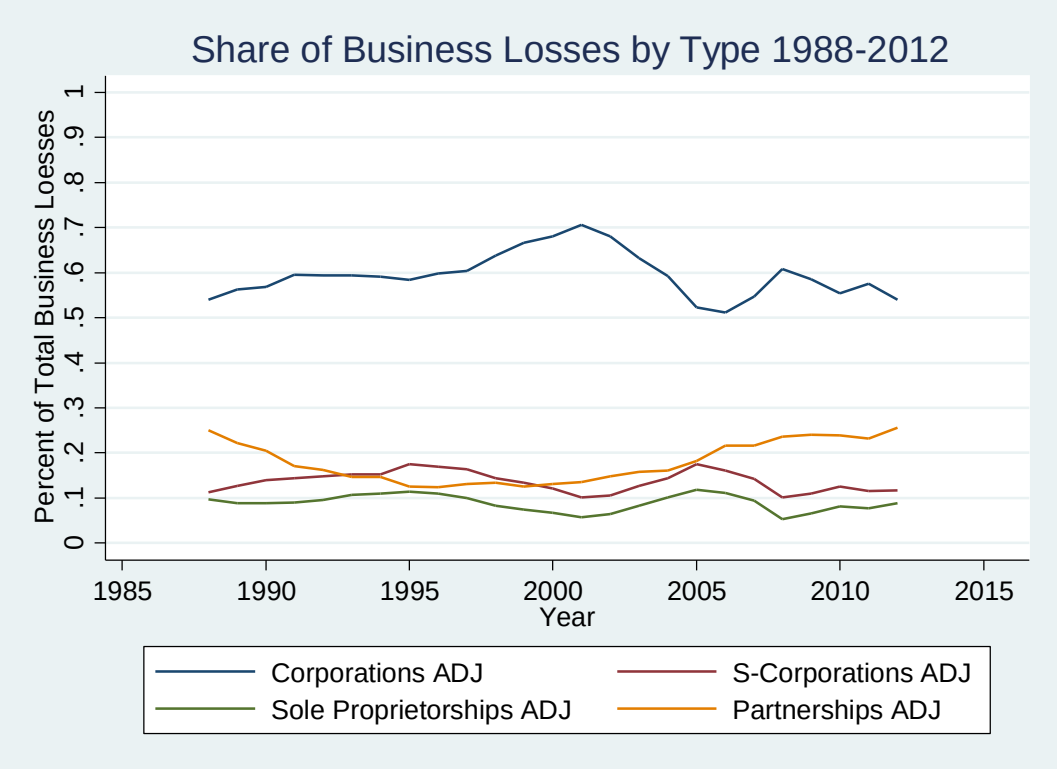

Figure V

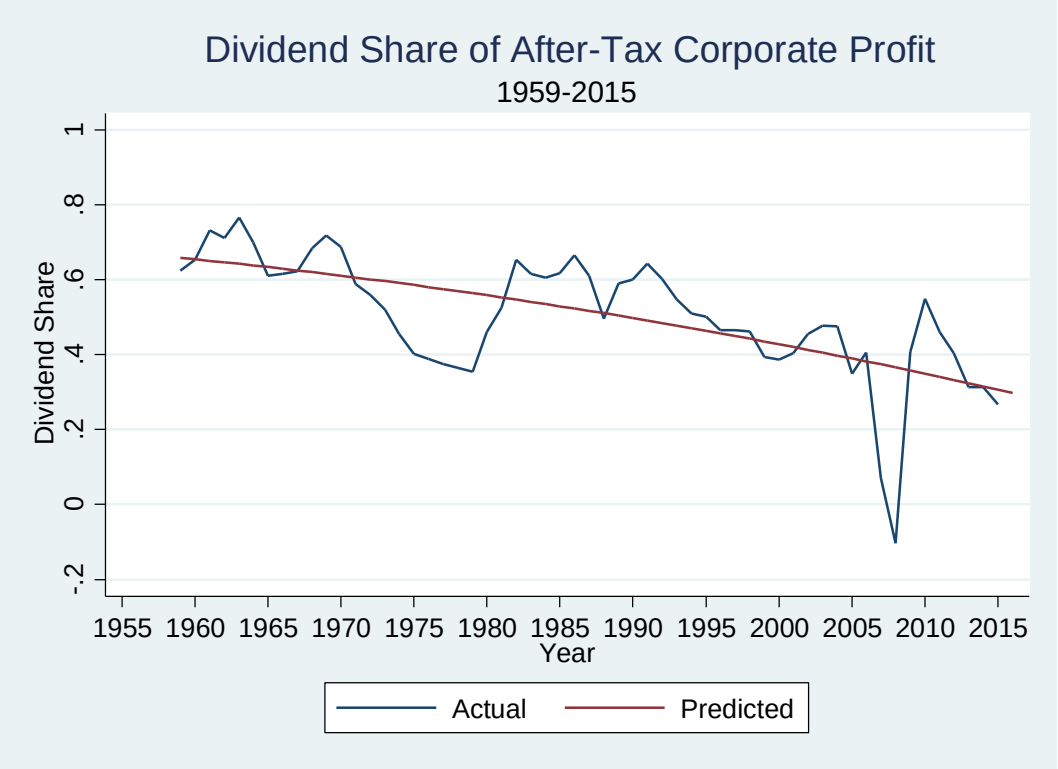
Dividend Share of After-Tax Corporate Profit
1959-2015
Dividend Share
-.2
0
.2
.4
.6
.8
1
1955
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
Year
Actual
Predicted

Figure VI