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This note revisits the incidence calculations in Suárez Serrato and Zidar (AER 2016, SZ hereafter). SZ combines reduced-form and model assumptions to calculate the effects of state corporate income tax cuts on the welfare of workers, the income of landowners, and the profits of firm owners.

After computing the benefits to each of these three agents, SZ then compare the benefits to each one of these agents to the simple sum of the total benefits to the three agents. This calculation implicitly assumes that we have one representative agent of each type with equal income. This calculation is useful from the perspective of understanding the identities of the agents that benefit the most from a tax cut. However, this calculation does not capture the overall gains to all workers relative to all landowners and all firm owners in the economy.

In this note, we revisit SZ (2016) by weighting the gains to each of these three types of agents by their relative importance in the economy. We thank David Albouy for suggesting that we clarify this point and for initial suggestions on how to do so. Section 1 derives the income shares and Section 2 present income-share-weighted results.

Relative to our baseline estimate in SZ, income-weighted shares give less incidence to landowners, which instead accrues to workers and firm owners. We encourage future researchers to analyze incidence using income-share weights both empirically and theoretically.

1   Income Shares

Consider the three agents in SZ:

- **Workers.** Workers have income of wN derived from labor earnings.

- **Landowners.** Since workers spend α on housing, landowners receive income of αwN.

- **Firm Owners.** Firms owners receive profits and returns from capital. Recalling $\varepsilon^{PD} < 0$ is the product demand elasticity, given the CES structure of the model firm owners profits are $\pi = \frac{\text{Total Expenditure}}{-\varepsilon^{PD}}$. Returns to capital, ρK, are $\delta\times$ Costs. Costs are $-(\varepsilon^{PD} + 1)\pi$.[1]

We assume that firm owners and landowners spend their earnings in the product market. Total expenditure in the product market is then:

$$\text{Total Expenditure} = (1 - \alpha)wN + \alpha wN + \pi - (\varepsilon^{PD} + 1)\pi\delta = wN + \pi\left(1 - (\varepsilon^{PD} + 1)\delta\right).$$

Profits are then:

$$\pi \;\; = \;\; \frac{wN}{-(\varepsilon^{PD} + 1)(1 - \delta)}.$$

Total income is then:

$$wN\left[1 + \alpha + \frac{1 - \delta(\varepsilon^{PD} + 1)}{-(\varepsilon^{PD} + 1)(1 - \delta)}\right].$$

Income shares are then:

$$(s_W, s_R, s_F) = \left(\frac{1}{1 + \alpha + \frac{1 - \delta(\varepsilon^{PD}+1)}{-(\varepsilon^{PD}+1)(1-\delta)}}, \frac{\alpha}{1 + \alpha + \frac{1 - \delta(\varepsilon^{PD}+1)}{-(\varepsilon^{PD}+1)(1-\delta)}}, \frac{\frac{1 - \delta(\varepsilon^{PD}+1)}{-(\varepsilon^{PD}+1)(1-\delta)}}{1 + \alpha + \frac{1 - \delta(\varepsilon^{PD}+1)}{-(\varepsilon^{PD}+1)(1-\delta)}}\right). \tag{1}$$

2   Income-Share Weighted Incidence Estimates

Table 1 implements the shares in Equation 1 as a function of the model parameters. We show how these shares vary for the different parameter values used in Table 7 of SZ. Relative to the equal-weighed approach in SZ, the

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[1]This follows since sales equal costs plus profits, and sales equal $-(\varepsilon^{PD})\pi$.

income-weighted approach puts more weight on the response on worker welfare and somewhat less on landowners and firm owners to a smaller extent and depending on the specification. Intuitively, higher levels of α (share of housing expenditure) increase the income share of landowners. More elastic product demand elasticities (larger $-\varepsilon^{PD}$ in absolute value) lowers markups and decreases the share of income going to firm owners.

Table 2 uses the model implied income shares to weight the incidence gains to workers, landowners, and firm owners. We then report the income-share weighted incidence estimates. Panel A reports these estimates for the incidence results in Table 7 of the published manuscript (SZ). In response to a comment by Malgouyres, Mayer, and Mazet-Sonilhac (2020, MMM-S hereafter), we have updated our incidence estimates using both reduced-form and structural approaches. Panel B first reports the income-weighted incidence estimates using the reduced-form results in Table 2 of the reply to MMM-S (Suárez Serrato and Zidar, 2021). Since this table does not require estimates of ε^{PD}, we report results when ε^{PD} equals -2.5 and -5. The last set of results use the structural results in Table 4 of our reply to MMM-S for different parameter values.

In SZ, our baseline result in the abstract reported that 40% of the benefits of a state corporate income tax cut accrued to firm owners, with 30-35% going to workers, and the remaining 25-30% going to landowners. Panel A of Table 2 shows that across our specification the range of incidence for firm owners is now 39-49%, with workers receiving 26-46%, and landowners receiving the remaining 10-29%. Panel B shows that when we use the product demand elasticity of -2.5 and the reduced-form results, the share going to firm owners is substantially larger. When we use a product demand elasticity of -5—which is close to the value we estimate empirically in SZ Table 7—Table 1 shows that worker income is 57% of total income, which is close to estimates of national income shares. Using this parameter value, Table 2 shows that the range of incidence estimates going to firm owners is between 38–57% and workers get between 23–38%.

Finally, Panel C of Table 2 shows that our structural estimates—which use additional moments to discipline model parameters—yield income-weighted shares of incidence to firm owners between 31–65% with workers receiving 18–52%, and landowners receiving 11–26%.

Table 1: Income Shares Implied by Model Parameters

	α	ε^{PD}	δ	Land	Workers	Firms
SZ (2016)				33%	33%	33%
Table 7 column (1)	0.30	-2.50	0.135	13%	45%	42%
Table 7 column (2)	0.65	-2.50	0.135	25%	39%	36%
Table 7 column (3)	0.30	-4.00	0.135	16%	54%	29%
Table 7 column (5)	0.30	-5.00	0.135	17%	57%	26%

Table 2: Incidence Estimates Weighted by Income Shares

	α	ε^{PD}	δ	Land	Workers	Firms
Panel A: SZ (2016)						
Table 7 column (1)	0.30	-2.50	0.135	18%	33%	49%
Table 7 column (2)	0.65	-2.50	0.135	29%	26%	45%
Table 7 column (3)	0.30	-4.00	0.135	10%	42%	48%
Table 7 column (5)	0.30	-4.70	0.135	11%	45%	44%
Table 5 column (3)	0.30	-4.00	0.075	15%	46%	39%
Panel B: Reply to MMM-S (Reduced-Form)						
Table 2 column (1)	0.30	-2.50	0.135	8%	24%	69%
Table 2 column (2)	0.65	-2.50	0.135	16%	15%	69%
Table 2 column (3)	0.30	-2.50	0.075	8%	26%	66%
Table 2 column (4)	0.30	-2.50	0.135	3%	23%	73%
Table 2 column (5)	0.65	-2.50	0.135	25%	20%	56%
Table 2 column (6)	0.30	-2.50	0.135	7%	22%	72%
Table 2 column (1)	0.30	-5.00	0.135	12%	37%	51%
Table 2 column (2)	0.65	-5.00	0.135	25%	23%	51%
Table 2 column (3)	0.30	-5.00	0.075	13%	41%	46%
Table 2 column (4)	0.30	-5.00	0.135	5%	38%	57%
Table 2 column (5)	0.65	-5.00	0.135	34%	28%	38%
Table 2 column (6)	0.30	-5.00	0.135	11%	34%	55%
Panel C: Reply to MMM-S (Structural)						
Table 4 column (1)	0.30	-2.50	0.135	16%	42%	42%
Table 4 column (2)	0.65	-2.50	0.135	17%	32%	51%
Table 4 column (3)	0.30	-4.00	0.135	17%	52%	31%
Table 4 column (4)	0.30	-5.00	0.135	20%	35%	45%
Table 4 column (5)	0.30	-2.50	0.135	11%	24%	65%
Table 4 column (6)	0.65	-2.50	0.135	26%	18%	57%