

# Dual Personal Income Taxation and Corporations Income Shifting and Implications for Progressivity

---

Darío Serrano-Puente & Dirk Foremny



Universitat de Barcelona School of Economics



Institut d'Economia de Barcelona (IEB)



48th Simposio de la Asociación Española de Economía @ #SAEe2023

📅 December 14<sup>th</sup>, 2023

🏛️ Universidad de Salamanca, USAL

📍 Edificio I+D+i, Universidad de Salamanca, Calle Espejo 2, 37007 Salamanca, Spain

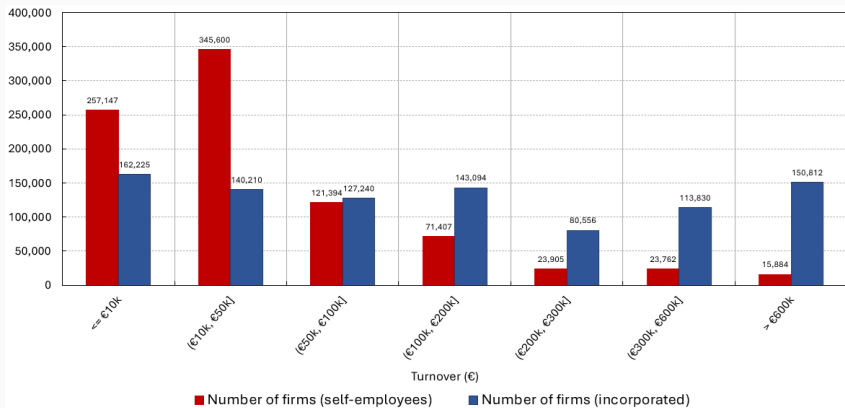
- **Context** → **Dual PIT (Personal Income Tax) + Lowered CIT (Corporate Income Tax) rates** → **Eroded progressivity**.
- **Background** → **Tax incentives** to become incorporated → **Combined CIT & PIT** (on corporation's profits + dividends + convenient salaries) lower than only PIT (on regular labor or self-employment income or real estate income).
- **Empirical question** → **Behavioural responses** of taxpayers? Implications for **efficiency** and **progressivity** of the income tax? Aggregate effects on **tax revenue** and **inequality** ?
- **Data** → Very detailed **administrative micro-data from Spain** on income, wealth and other socioeconomic characteristics.
- **Method** → *difference-in-difference* and event study methods exploiting **over-time** and **cross-regional** variation.
- **Preliminary results** → 2% of total taxpayers react to these incentives → Responses to taxation (ETI) not completely "real", but including other dominant behavioural responses as **income shifting**.

## Context

- **Income inequality** can harm societies<sup>a</sup> → **Progressive redistribution**.
- **Economic efficiency** might suffer from **increasing tax progressivity**.
- Effectiveness of taxation in reducing inequalities → (i) **degree of progressivity** and (ii) **taxpayers' behaviour**.
- **Dual PIT (Personal Income Tax) + lowered CIT (Corporate Income Tax) rates** → **eroded progressivity**.
- **Tax incentives** to become incorporated → **income shifting** (i) **between PIT bases** and (ii) **between PIT and CIT**.

<sup>a</sup>See Alesina and Perotti (1996), Stiglitz (2012), and Pástor and Veronesi (2021).

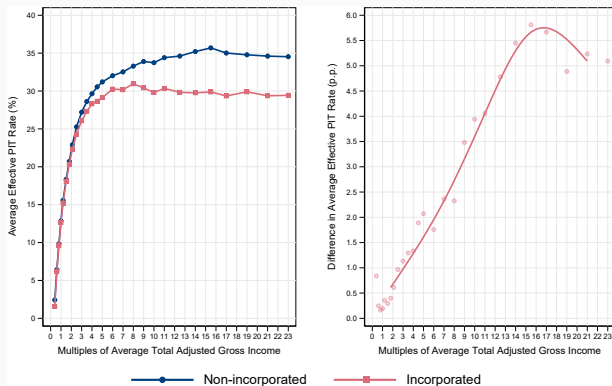
Figure: Number of small and medium (comparable) firms in Spain by turnover level (2017)



Source: *Estadística de PYMES societarias y no societarias*, AEAT (2023).

➔ **Incorporated** taxpayers face a considerable **lower PIT average effective tax rate** than those who are not incorporated.

Figure: Average effective PIT rate by multiples of average total adjusted gross PIT income (2007-2019)



➔ 2% of total taxpayers seem to react to these tax incentives.

## Behavioural responses of taxpayers to taxation

- For example, **taxpayer** facing **PIT rate increase** might behave differently.
  1. **Output reduction** → “real” response → drop in economic efficiency.
  2. **Income shifting** → same output (real income constant) → sheltering income from taxation.

## Income Shifting Mechanism

- Regular, self-employment or real estate income in PIT → transfer business income into corporation → CIT on corporate profits → transfer corporate after-tax income into personal income as dividends (financial capital income) and convenient salaries (labor income).
- Given dual PIT → dividends enter PIT in savings/special tax base (lower and less progressive PIT schedule than labor/general tax base) → **combined CIT and PIT burden can be lower than declaring all income as self-employment labor income.**

## Contribution

- Literature on **income shifting** → (1) choice of organizational form<sup>a</sup>, (2) choice to remunerate business owners<sup>b</sup>, (3) moving income between spouses within marriage<sup>c</sup>, (4) timing to realize dividend payments or capital gains<sup>d</sup>.
- Literature on **elasticity of taxable income (ETI)**, which is not only capturing “real” economic behaviour<sup>e</sup> → **Depict ETI part driven by income shifting in Spain<sup>f</sup>**.
- Crucial results for debate on optimal marginal tax rates → estimated **effects of income shifting on welfare, economic activity, redistribution, tax revenue, inequality and tax progressivity**.

<sup>a</sup> See Gordon and MacKie-Mason (1994), Gordon and Slemrod (1998), and Thoresen and Alstadsæter (2010). In Spain, Domínguez Barrero and Laborda (1999), Domínguez Barrero et al. (2003), Domínguez Barrero and Laborda (1999), Laborda et al. (2014), and López-Laborda et al. (2018).

<sup>b</sup> See Alstadsæter and Jacob (2016), and Harju and Matikka (2016).

<sup>c</sup> See Stephens and Ward-Batts (2004).

<sup>d</sup> See Alstadsæter and Jacob (2016), Chetty and Saez (2005), Kari et al. (2008), le Maire and Schjerming (2013), Auerbach et al. (1998), Jacob (2016), and Jacob (2018).

<sup>e</sup> See Pirttilä and Selin (2011), Slemrod (2001), Gruber and Saez (2002), Chetty (2009), Saez et al. (2012), Harju and Matikka (2016), and Bergolo et al. (2022).

<sup>f</sup> Rationalizing estimates of Almunia and Lopez-Rodriguez (2019).

## Spain as a case study

- Spanish public finance system **follows outlined global trends in PIT and CIT** → Also many **changes over time in PIT and CIT** schedules.
- **Tax decentralization** → Many different regional PIT and wealth tax schemes.
- Many **legal/statutory changes** different from changes in tax schemes.
- New **very rich administrative tax microdataset** on income and wealth, with very granular data on self-employment activities.
- Findings can be **extrapolated to other economies**.



## Panel de hogares 2016-2020, Instituto de Estudios Fiscales (IEF) (2022)

- 15 of 17 Spanish autonomous communities (+ Ceuta & Melilla).<sup>a</sup>
- From **1998** to **2020**.
- **5% longitudinal sample** of whole census (not only PIT filers) provided by AEAT & INE with admin **individual-level** info on<sup>b</sup>:
  - PIT returns + Administrative forms for PIT withholdings + Special PIT returns for non-resident taxpayers
  - Wealth tax returns and other wealth registries (not only wealth tax filers)
  - Very granular data on different types of owned wealth and business activities
  - Spouse matching and household composition (only as of 2016)
  - Other socio-economic characteristics

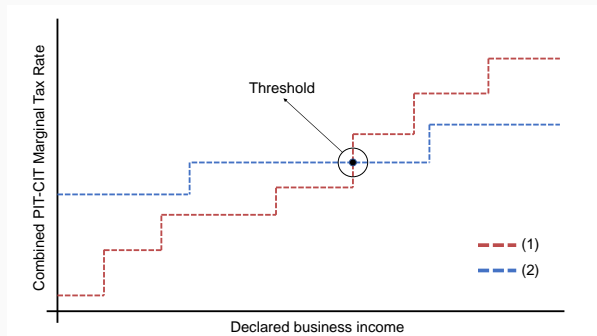
<sup>a</sup> Only data for regions in the Common Fiscal Regime. **Regional governments of Basque Country and Navarre do not disclose data.**

<sup>b</sup> A detailed description of the already published and open-access dataset is provided in Pérez López et al. (2022).

### 3 Identification

*Difference-in-difference* → treatment being the **individual specific threshold** at which taxpayer is **indifferent** between:

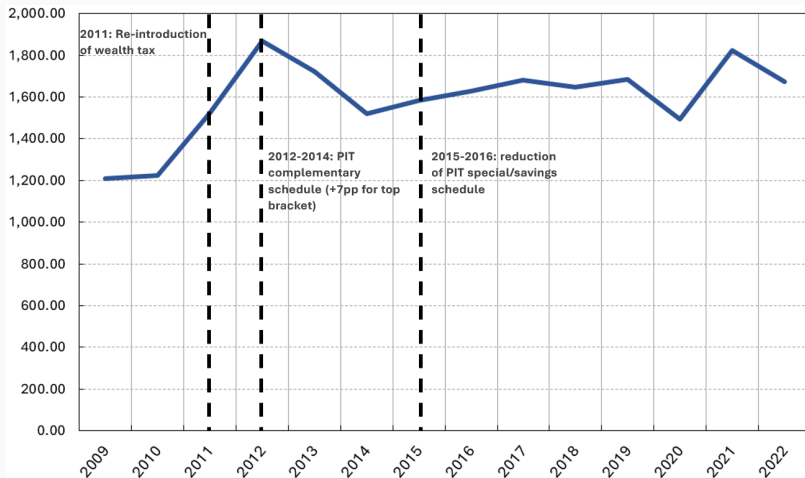
- (1) All income as regular, self-employed or real estate income in PIT general schedule.
- (2) Incorporating + CIT on corporate profits + dividends (special PIT schedule) and convenient salaries (general PIT schedule) from corporation to owner.



#### Sources of variation

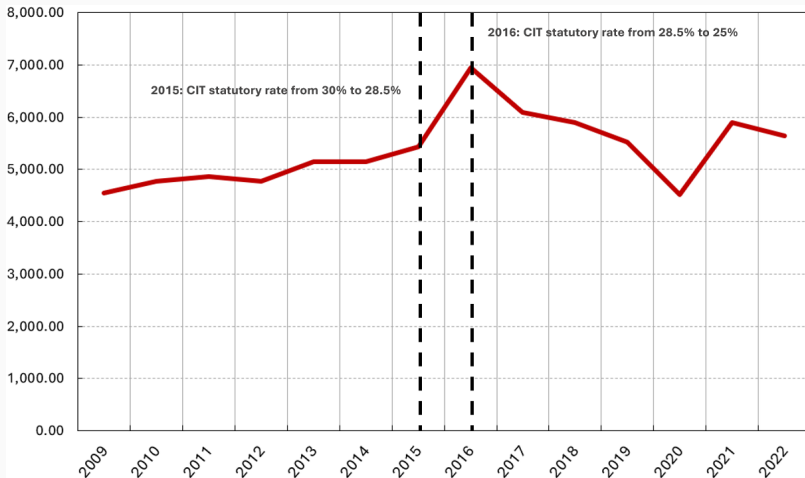
1. Different **PIT schemes** across regions and over time
2. Different **wealth tax** and **inheritance tax** exemptions across regions and over time for business-related assets and shares of own-controlled corporations.
3. **CIT scheme** changing over time.
4. **Legal reforms** over time in PIT law on **linked transactions**.
5. **Other legal changes** over time affecting the decision of incorporating ➔ Like changes in social security contributions for corporate owners/managers.

Figure: New created closely held corporations in Spain with capital over €300k



Source: *Estadística de sociedades mercantiles*, INE (2023).

Figure: New created closely held corporations in Spain with capital between €18k and €60k



Source: *Estadística de sociedades mercantiles*, INE (2023).

### 3 Identification

#### Controls



- Business activity(ies) (NACE code up to 4-digit).
- Detail of the self-employment business activity(ies).
- Personal wealth structure.
- Household composition: Spouse and other household members.
- Joint/single PIT filing.
- Country of birth and nationality in the tax year.
- Non-PIT-filers.
- Migration out of the panel or across regions.











#### What are we working on?

- Estimate **intensive and extensive margin** in the income shifting behaviour.
- Different types of income shifting tax avoidance motives: (1) **self-employment** income, (2) **real estate** income, (3) **wealth stock**.
- Quantify **role of each tax change** (PIT, CIT, wealth tax or inheritance tax).
- Explore **asymmetries in the behaviour** as there were tax changes with opposite sign.
- Explore differences in behaviour between **changes in tax schedules/schemes** vs. **changes in legal requirements**.
- Estimate part of **taxpayers' response to tax changes (ETI)** attributed to (1) **"real" economic-activity responses** and to (2) **income shifting**.
- Estimate **effects of income shifting** on **tax revenue, tax progressivity loss, and income (and wealth) inequality**.



## Darío Serrano-Puente

 Universitat de Barcelona School of Economics  
 Institut d'Economia de Barcelona (IEB)

- |   |  |
|---|--|
|  Personal website  |  Google Scholar |
|  <a href="mailto:dario.serrano@ub.edu">dario.serrano@ub.edu</a>                        |  ORCID          |
|  <a href="https://twitter.com/darioserranopue">@darioserranopue</a>                    |  IDEAS/RePEc    |
|  <a href="https://www.linkedin.com/in/serranopuente">serranopuente</a>                 |  Publons        |
|  <a href="https://www.researchgate.net/profile/Dario-Serrano-Puente">serranopuente</a> |  SSRN           |



- ALESINA, A. AND R. PEROTTI (1996): "Income distribution, political instability, and investment," *European Economic Review*, 40 (6), 1203–1228, [https://doi.org/10.1016/0014-2921\(95\)00030-5](https://doi.org/10.1016/0014-2921(95)00030-5).
- ALMUNIA, M. AND D. LOPEZ-RODRIGUEZ (2019): "The elasticity of taxable income in Spain: 1999–2014," *SERIEs*, 10 (3-4), 281–320, <https://link.springer.com/article/10.1007/s13209-019-00208-x>.
- ALSTADSÆTER, A. AND M. JACOB (2016): "Dividend Taxes and Income Shifting," *Scandinavian Journal of Economics*, 118 (4), 693–717, <https://onlinelibrary.wiley.com/doi/full/10.1111/sjoe.12148>.
- AUERBACH, A., L. E. BURMAN, AND J. M. SIEGEL (1998): "Capital Gains Taxation and Tax Avoidance: New Evidence from Panel Data," *National Bureau of Economic Research Working Papers*, n. 6399, <https://EconPapers.repec.org/RePEc:nbr:wp:6399>.
- BERGOLO, M., G. BURDIN, M. DE ROSA, M. GIACCOBASSO, M. LEITES, AND H. RUEDA (2022): "How do Top Earners Respond to Taxation? Evidence from a Tax Reform in Uruguay," *SSRN Papers*, <https://dx.doi.org/10.2139/ssrn.4007698>.
- CHETTY, R. (2009): "Sufficient Statistics for Welfare Analysis: A Bridge Between Structural and Reduced-Form Methods," *Annual Review of Economics*, 1, 451–488, <https://doi.org/10.1146/annurev.economics.050708.142910>.
- CHETTY, R. AND E. SAEZ (2005): "Dividend Taxes and Corporate Behavior: Evidence from the 2003 Dividend Tax Cut," *The Quarterly Journal of Economics*, 120 (3), 791–833, <https://academic.oup.com/qje/article/120/3/791/1841479>.
- DOMÍNGUEZ BARRERO, F., J. L. LABORDA, AND F. R. SAUCO (2003): "Incidencia del IRPF y el Impuesto sobre Sociedades en la elección de la forma de empresa: dos aproximaciones empíricas," *Universidad de Zaragoza*, <https://dialnet.unirioja.es/descarga/articulo/3134066.pdf>.
- DOMÍNGUEZ BARRERO, F. AND J. L. A. LABORDA (1999): "Efectos de la reforma del IRPF sobre las decisiones de financiación e inversión societaria y sobre la elección de la forma de la empresa," *Universidad de Zaragoza*.
- GORDON, R. AND J. SLEMROD (1998): "Are 'Real' Responses to Taxes Simply Income Shifting Between Corporate and Personal Tax Bases?" *National Bureau of Economic Research Working Paper*, n. 6576, <https://www.nber.org/papers/w6576>.
- GORDON, R. H. AND J. K. MACKIE-MASON (1994): "Tax distortions to the choice of organizational form," *Journal of Public Economics*, 55 (2), 279–306, [https://doi.org/10.1016/0047-2727\(94\)90055-8](https://doi.org/10.1016/0047-2727(94)90055-8).
- GRUBER, J. AND E. SAEZ (2002): "The Elasticity of Taxable Income: Evidence and Implications," *Journal of Public Economics*, 84 (1), 1–32, [https://doi.org/10.1016/S0047-2727\(01\)00085-8](https://doi.org/10.1016/S0047-2727(01)00085-8).
- HARJU, J. AND T. MATIKKA (2016): "Business owners and income-shifting: evidence from Finland," *Small Business Economics*, 46, 115–136.
- INSITUTO DE ESTUDIOS FISCALES (IEF) (2022): "Panel de hogares 2016-2020," [https://www.ief.es/Investigacion/Est\\_panelHogares.vbhtml](https://www.ief.es/Investigacion/Est_panelHogares.vbhtml).
- JACOB, M. (2016): "Cross-base tax elasticity of capital gains," *Applied Economics*, 48 (28), 2611–2624, <https://doi.org/10.1080/00036846.2015.1125438>.

- (2018): "Tax Regimes and Capital Gains Realizations," *European Accounting Review*, 27 (1), 1–21, <https://doi.org/10.1080/09638180.2016.1203811>.
- KARI, S., H. KARIKALLIO, AND J. PIRTILÄ (2008): "Anticipating Tax Changes: Evidence from the Finnish Corporate Income Tax Reform of 2005\*," *Fiscal Studies*, 29 (2), 167–196, <https://doi.org/10.1111/J.1475-5890.2008.00072.X>.
- LABORDA, J. L., J. VALLÉS-GIMÉNEZ, AND A. Z. MARCO (2014): "IRPF dual y transformación de rentas generales en rentas del ahorro," *Fedea - Estudios sobre la Economía Española*, 14, <https://ideas.repec.org/p/fda/fdaeee/eee2014-11.html>.
- LE MAIRE, D. AND B. SCHJERNING (2013): "Tax bunching, income shifting and self-employment," *Journal of Public Economics*, 107, 1–18, <https://doi.org/10.1016/J.JPUBECO.2013.08.002>.
- LÓPEZ-LABORDA, J., J. VALLÉS-GIMÉNEZ, AND A. ZÁRATE-MARCO (2018): "Income Shifting in the Spanish Dual Income Tax," *Fiscal Studies*, 39 (1), 95–120, <https://doi.org/10.1111/j.1475-5890.2017.12147>.
- PIRTILÄ, J. AND H. SELIN (2011): "Income Shifting within a Dual Income Tax System: Evidence from the Finnish Tax Reform of 1993," *Scandinavian Journal of Economics*, 113 (1), 120–144, <https://doi.org/10.1111/J.1467-9442.2010.01635.X>.
- PÁSTOR, L. AND P. VERONESI (2021): "Inequality Aversion, Populism, and the Backlash against Globalization," *Journal of Finance*, 76 (6), 2857–2906, <https://doi.org/10.1111/jofi.13081>.
- PÉREZ LÓPEZ, C., J. VILLANUEVA GARCÍA, I. MOLINERO MUÑOZ, AND C. VEGA MARTÍNEZ (2022): "Panel de hogares: ejercicios 2016 a 2020," *Documentos de Trabajo - Instituto de Estudios Fiscales (IEF)*, 2/2023, [https://www.ief.es/docs/destacados/publicaciones/documentos\\_trabajo/2023\\_02.pdf](https://www.ief.es/docs/destacados/publicaciones/documentos_trabajo/2023_02.pdf).
- SAEZ, E., J. SLEMROD, AND S. H. GIERTZ (2012): "The Elasticity of Taxable Income with Respect to Marginal Tax Rates: A Critical Review," *Journal of Economic Literature*, 50 (1), 3–50, <https://doi.org/10.1257/jel.50.1.3>.
- SLEMROD, J. (2001): "A General Model of the Behavioral Response to Taxation," *International Tax and Public Finance*, 8, 119–128, <https://doi.org/10.1023/A:1011204301325>.
- STEPHENS, M. AND J. WARD-BATTS (2004): "The impact of separate taxation on the intra-household allocation of assets: evidence from the UK," *Journal of Public Economics*, 88 (9-10), 1989–2007, [https://doi.org/10.1016/S0047-2727\(03\)00067-7](https://doi.org/10.1016/S0047-2727(03)00067-7).
- STIGLITZ, J. E. (2012): "*The price of inequality*", published by W. W. Norton & Company, New York.
- THORESEN, T. O. AND A. ALSTADSÆTER (2010): "Shifts in Organizational Form under a Dual Income Tax System," *FinanzArchiv / Public Finance Analysis*, 66 (4), 384–418, <https://www.jstor.org/stable/20839200>.