# Microeconomics of Public Policy
## *Part VI: Tax evasion*

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# Today's lecture

Why does it matter?

Tax evasion by individuals

Tax evasion by corporations

# Why does it matter?

# The costs of tax evasion

Tax evasion harms governments' capacity to raise revenue and provide public goods. It may also affect the tax composition: lower taxes on (mobile) capital and higher taxes on labour and consumption.

Tax evasion may undermine the perceived legitimacy of tax systems and erode tax morale

The EU Tax Observatory collects the most up-to-date research in the Global Tax Evasion Report 2024 and in the Atlas of the Offshore World

# Tax evasion by individuals

The canonical model of tax evasion is that by Allingham and Sandmo (1972):

- The taxpayer reports a level of income $y$ which is taxed at rate $\tau$ and which is either equal to or below their true level of income, $\bar{y}$
- With probability $p$, the taxpayer is audited, in which case any tax evasion will be uncovered and fined at a rate of $\tau\theta$

Expected utility will be equal to

$$EU = (1-p) * u(\underbrace{\bar{y} - \tau y}_{c_{\text{not caught}}}) + p * u(\underbrace{\bar{y}(1-\tau) - \tau\theta(\bar{y} - y)}_{c_{\text{caught}}})$$

A taxpayer should increase reported income if

$$
\begin{aligned}
(1-p)(-\tau)u'(C_{\text{not caught}}) + p\tau\theta u'(C_{\text{caught}}) &> 0 \\
p\tau\theta u'(C_{\text{caught}}) &> (1-p)\tau u'(C_{\text{not caught}}) \\
\frac{u'(C_{\text{caught}})}{u'(C_{\text{not caught}})} &> \frac{1-p}{p\theta}
\end{aligned}
$$

Starting from no evasion, $y = \bar{y}$ and $u'(C_{\text{caught}}) = u'(C_{\text{not caught}})$, so :

$$
\begin{aligned}
1 &> \frac{1-p}{p\theta} \\
p(1+\theta) &> 1
\end{aligned}
$$

In practice, the audit rate is 1-2%. Penalty rates are rarely higher than 100%.

$\Rightarrow$ All taxpayers should underreport their income

# The evasion puzzle

According to the best estimates, evasion in developed countries is low

1. **Third-party reporting** - Employers and financial institutions report income to the tax authority, limiting evasion opportunities for taxpayers (Kleven et al., 2011).
2. **Social norms and morality** - Taxpayers may refrain from evading taxes because it is illegal and they may see it as immoral. However, whether appealing to morality increases tax compliance is unclear (see e.g., De Neve et al. (2021))

Joel Slemrod (2019) provides a comprehensive literature review in *Tax Compliance and Enforcement*.

# Offshore evasion

One of the most striking forms of tax evasion is offshore tax evasion. According to Zucman (2013), 8% of households' financial wealth is held in tax havens. How does he obtain this estimate?

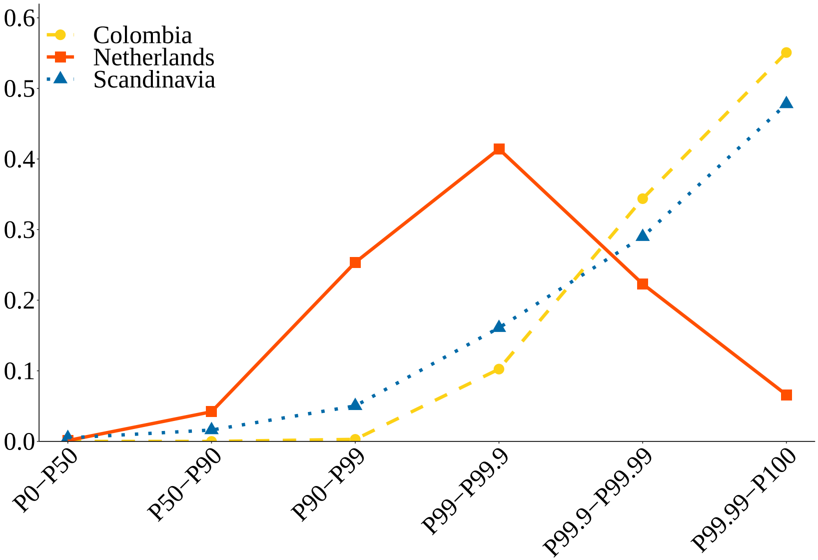
- Consider a French household with a Swiss bank account, invested in U.S. equities
- In aggregate financial statistics, this **should** be recorded as an asset for France on the U.S. and a liability for the U.S. towards France
- **But** in practice, French statisticians do not know that the U.S. equities belong to the French household and thus record no assets. American statisticians see that a Swiss bank owns U.S. equities and thus records a liability.

  $\Rightarrow$ At the world level, recorded liabilities $>$ recorded assets

Can we know who owns this offshore wealth?

- Tax amnesties
- Leaks (HSBC leak, Panama Papers, etc.)

# Who owns offshore wealth?




Sources: Alstadsæter, Johannesen and Zucman (2019), Londoño-Vélez and Ávila-Mahecha (2021), Leenders et al. (2023)

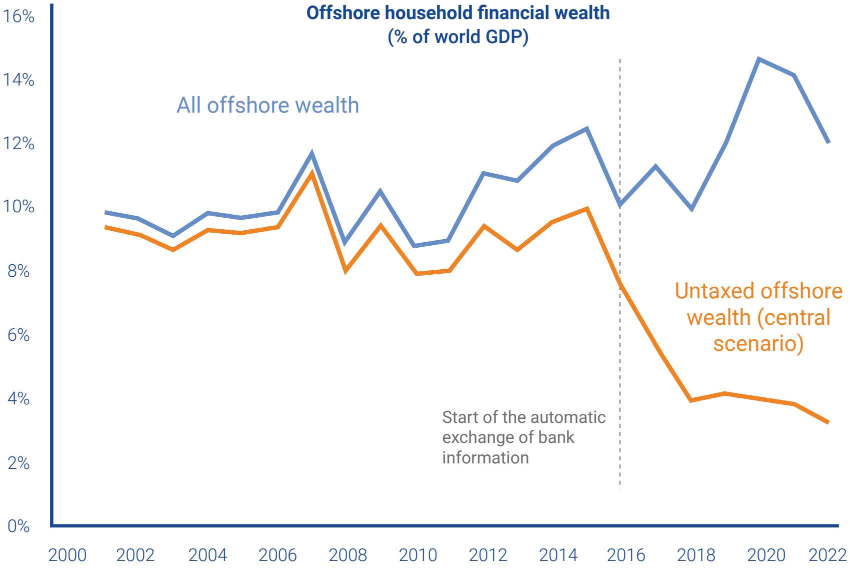
# Recent developments

Since 2014, countries have started to automatically exchange information under the Foreign Account Tax Compliance Act (FATCA) and the Common Reporting Standard (CRS). Switzerland will now inform France that a French household has a bank account in Switzerland.

Many, but not all countries have signed up to these international agreements. Not all types of assets are covered by the exchange of information. Importantly, real estate is excluded.

Several papers have now documented that real estate in London and Dubai is used to avoid the automatic exchange of information (Alstadsæter et al., 2022; Bomare and Le Guern Herry, 2022).

# The success of the automatic exchange of bank information




Source: EU Tax Observatory (2023)

# Tax evasion by corporations

# How do corporations avoid taxes?

The corporate tax is levied on firm profits. Multinational firms have affiliates in multiple countries - what share of the profits is taxed in which country?

Each affiliate is supposed to compute its profits separately according to the **arm's length principle**: all intra-firm transactions should be treated as if they were conducted between two unrelated parties

Concretely, consider a coffee company, *Coffee America*, that sources its coffee beans from its subsidiary in Brazil, *Coffee Rio*.

- Suppose 100,000 cups of coffee are sold for $4 each and that the costs per cup equal $3, $1.50 for the cultivation and transport of coffee beans and $1.50 for the marketing and sale in the United States. Global profits are thus $100,000.
- How much should *Coffee Rio* charge *Coffee America* for the beans? Suppose that the world market price for beans is $2. Then *Coffee Rio*'s profits are 100,000*(2-1.50) = $50,000 and *Coffee America*'s profits are 100,000*(4-2-1.50) = $50,000.

# How do corporations avoid taxes?

1. **Hybrid mismatches** - the exploitation of differences in the tax treatment of entities or instruments in different countries.
    - Jesse Frederik: *Bermuda? Guess again. Turns out Holland is the tax haven of choice for US companies*
2. **Transfer mispricing** - the manipulation of internal prices (e.g., claiming that the market price for coffee beans is $2.50)
3. **Intellectual property shifting** - by locating intellectual property in tax havens, non-haven affiliates have to pay royalties to the affiliate in the tax haven: Alphabet (until 2020)
4. **Revenue shifting** - directly booking sales in low-tax jurisdictions: Uber, Amazon
5. **Debt shifting** - firms in high-tax countries borrow heavily from their affiliates in low-tax countries so that they have to pay interest to them

# How big is corporate tax avoidance?

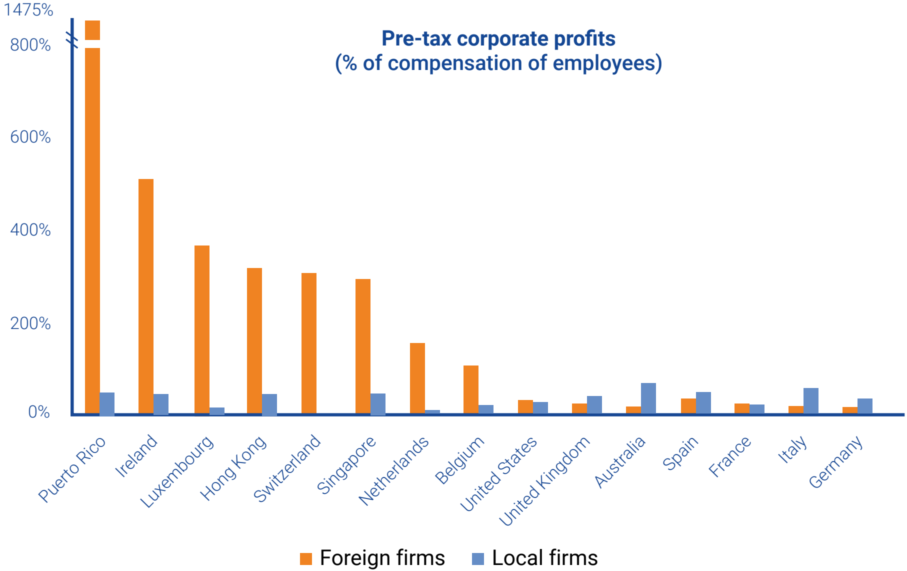
Until recently researchers had to study each channel in isolation using ad-hoc methodologies and data sets. In recent years, new data has come available:

1. **Foreign affiliate statistics** - Aggregate data that reports on the activities of multinational corporations separately from domestic firms.
2. **Country-by-Country reports** - Data on the income earned and taxes paid by country for a select group of large multinational corporations.

Tørsløv, Wier and Zucman (2023) propose a new methodology based on the idea that multinational profit shifting inflates the profitability of multinational affiliates in low-tax jurisdictions, while understating the profitability in high-tax countries. Profit shifting is then found by equating the profitability of foreign firms to that of local firms in each tax haven.

$\Rightarrow$ Tax revenue losses amount to 10% of global corporate tax revenue (missingprofits.world)

# The excess profitability of foreign firms in tax havens




Source: EU Tax Observatory (2023)

# Profit shifting by multinational companies has exploded and remains high


Source: EU Tax Observatory (2023)

# Recent developments

In October 2021, 137 countries agreed to a “two pillar” solution to address corporate tax avoidance

**Pillar One** is concerned with re-assigning profits and taxing rights

**Pillar Two** establishes a minimum tax rate of 15% for multinationals with revenue greater than €750mln

- If a company’s effective tax rate falls below 15%, other countries can levy “top-up” taxes
- The effectiveness of the minimum tax is undermined by **carve-outs**: profits related to “real activity” such as employing workers is exempt from the minimum tax

Today’s Financial Times: “*Global tax deal under threat from US politics and fraying consensus*”

**Allingham, Michael, and Agnar Sandmo.** 1972. “Income tax evasion: A theoretical analysis.” *Journal of Public Economics*, 1: 323–338.

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