LECTURE 10

TAX POLICY

Corporate Taxation

I'll probably kick myself for having said this, but when are we going to have the courage to point out that in our tax structure, the corporation tax is very hard to justify?
President Ronald W. Reagan

Corporations

- Corporation – An independent legal entity, a form of business organization, usually with limited liability for shareholders (owners) and an independent legal status
- Limited liability
- Corporations are "artificial legal persons"

Corporations – basic definitions

- Corporation – is a for-profit business owned by shareholders with limited liability (if business goes bankrupt, share price drops to zero but shareholders not liable for unpaid bills/debt)
- Shareholders: Individuals who have purchased ownership stakes in a company.
- Ownership vs. control: owners are shareholders. Managers (CEO and top executives) in general do not own the company but run the corporation on behalf of shareholders
- Agency problem: A misalignment of the interests of the owners and the managers of a firm

Corporate tax as capital taxation

- The corporate income tax is often interpreted as a tax on capital in the corporate sector, i.e. it falls under the category of capital taxation, which includes many other forms of taxation like:
  - Taxes on the stock of capital (wealth taxes, taxes on bequests, etc.)
  - Taxes on incomes from savings (e.g. taxation of interest and dividends, taxation of capital gains, etc.)

Why do we have a corporate tax?

Corporations are not people but are ultimately owned by people. In principle, we want to tax people based on their economic resources but:

- 1) Tax collection convenience: Historically, corporations are more convenient to tax than individuals because they are large, visible, and have detailed accounts (for transparency for their shareholders). So taxing corporate income (profits) was attractive
- 2) Taxing foreign owners: Corporations often have foreign owners. Countries want to tax economic activity on their territory. E.g., consider developing country with foreign owned mineral/oil extraction companies

Why do we have a corporate tax?

3) Back-up for individual taxes: If corporations were not taxed on their earnings, then individuals who owned shares in corporations could postpone taxes indefinitely by having the corporations never pay out their earnings

4) Taxing Pure Profits: Some firms have market power (e.g., Microsoft) and hence earn pure profits. Taxing pure profits does not distort behavior because firms maximize profits anyway

7

Table 53: Taxes on capital as % of GDP - Total

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Difference 2011-2021 (pp)	Ranking 2021	Revenue 2021 (million EUR)
EU-27	7.2	7.1	7.4	7.8	7.9	7.9	8.1	8.1	8.2	8.2	8.1	8.0	8.5	1.1		1 240 485
EA-19	7.4	7.3	7.6	8.0	8.1	8.2	8.3	8.4	8.4	8.5	8.3	8.2	8.8	1.2		1 079 757
Belgium	8.5	8.8	9.2	10.1	10.6	10.6	10.5	10.5	11.1	11.3	10.5	9.9	10.6	1.4	2	53 377
Bulgaria	3.9	3.6	3.6	3.8	4.2	4.4	4.5	4.6	4.7	4.7	5.0	5.0	5.6	2.0	18	3 963
Czechia	5.5	5.1	5.1	5.1	5.2	5.1	5.3	5.4	5.4	5.4	5.2	4.4	5.3	0.2	21	12 508
Denmark	5.2	7.7	7.6	8.2	7.5	9.3	8.6	8.5	8.7	7.4	10.1	9.2	10.4	2.8	4	35 025
Germany	5.6	5.6	6.1	6.3	6.3	6.2	6.6	6.9	7.0	7.1	6.9	6.7	7.7	1.6	13	276 961
Estonia	2.7	2.3	2.1	2.3	2.6	2.6	3.0	2.5	2.3	2.8	2.6	2.6	3.1	1.0	26	989
Ireland	5.9	5.7	5.8	6.0	6.2	6.3	5.8	5.6	5.5	5.9	5.7	5.5	6.2	0.4	17	26 262
Greece	7.1	6.6	7.6	7.5	8.0	8.3	8.4	8.9	8.3	8.4	8.2	7.3	7.7	0.1	12	13 994
Spain	7.0	6.6	6.5	7.4	7.5	7.7	8.0	7.9	8.0	8.4	7.8	7.9	9.0	2.5	8	108 762
France	9.3	9.4	10.0	10.4	10.5	10.4	10.4	10.3	10.7	10.4	10.6	10.7	10.5	0.5	3	262 266
Croatia	4.4	3.7	4.1	3.8	4.0	3.7	4.1	4.7	4.7	4.8	4.8	4.7	4.3	0.2	23	2 492
Italy	10.0	9.2	9.3	10.5	10.7	10.5	10.6	10.3	10.0	9.6	9.5	9.7	9.9	0.6	5	176 796
Cyprus	8.3	8.2	8.6	8.2	9.1	9.2	8.8	8.1	8.7	8.4	8.2	8.2	9.0	0.4	7	2 166
Latvia	2.7	2.8	3.4	3.6	3.6	3.6	3.5	3.7	3.7	3.0	2.4	2.4	2.6	-0.8	27	871
Lithuania	4.0	2.9	2.6	3.1	3.0	3.1	3.4	3.5	3.3	3.4	3.5	3.5	4.2	1.6	24	2 347
Luxembourg	9.8	10.0	9.6	9.5	9.0	8.8	9.6	10.2	11.0	12.8	12.4	11.0	11.5	1.9	1	8 310
Hungary	7.7	7.1	6.9	7.1	6.4	6.5	6.7	7.0	6.7	5.9	5.8	5.8	5.5	-1.4	19	8 447
Malta	8.8	9.1	8.2	8.4	8.6	8.8	8.5	8.9	8.8	8.1	8.0	6.9	7.4	-0.8	14	1 106
Netherlands	4.6	5.0	4.6	4.4	4.7	6.0	5.9	6.8	7.3	7.6	7.9	7.5	8.3	3.7	9	71 427
Austria	6.4	6.4	6.5	6.6	6.9	6.9	7.2	7.0	7.2	7.5	7.6	6.9	7.9	1.4	11	32 022
Poland	7.8	7.2	7.4	7.9	7.5	7.4	7.8	8.0	8.1	8.5	8.6	8.9	9.1	1.7	6	52 558
Portugal	6.4	6.4	7.0	7.0	7.6	7.2	7.2	7.0	7.0	7.2	7.0	6.7	6.5	-0.5	16	13 932
Romania	4.4	4.0	4.4	3.9	4.2	4.8	5.1	5.2	4.3	3.7	3.8	3.3	4.0	-0.4	25	9 691
Slovenia	4.6	4.7	4.5	4.4	4.2	4.5	4.6	4.7	4.8	4.9	5.1	5.1	5.4	0.9	20	2 833
Slovakia	3.7	3.6	3.6	3.8	4.4	4.8	5.0	4.8	4.7	4.6	4.3	4.3	4.9	1.3	22	4 784
Finland	5.7	6.5	6.6	6.1	6.8	6.7	7.0	7.0	7.5	7.2	7.2	7.3	8.2	1.6	10	20 552
Sweden	5.5	6.1	5.6	5.2	5.4	5.6	6.2	6.3	6.2	6.0	6.0	5.8	6.7	1.1	15	36 043
Iceland	:	:	:	:	:	:	:	:	:	:	:	:	:	:		
Norway	12.3	13.2	14.0	13.6	11.6	10.0	8.2	7.8	8.6	10.1	9.7	6.8	13.2	-0.8		54 656

Source: Taxation trends in the EU 2023

8

Corporate tax as capital taxation

- At first sight, one might complain that the taxation of capital goes down over time, while taxation of labour income seems to increase.
- This would be unfair, if workers pay the tax on labour income and capitalists pay the tax on capital.
- Higher taxation of labour might also encourage substitution of capital for labour, thus reducing labour demand and creating unemployment.
- What does optimal theory tell us about the optimal tax rate on capital?

9

Optimal tax theory on capital taxation

- Consider Mrs. Thrifty and Mrs. Bigspender.
- Assume they have the same discounted lifecycle labour income.
- Mrs. Thrifty saves her income for retirement.
- Mrs. Bidspender spends her income within each period.
- They both pay the same tax on labour income.
- If the tax system taxes income from savings, Mrs. Thrifty will pay more income tax on the income she draws from her accumulated savings.

10

Optimal tax theory on capital taxation

- Double taxation of income saved certainly introduces a new distortion.
- But taxing labour income also introduces a distortion by reducing labour supply.
- In a second-best world, is it possible that introducing capital taxation helps to correct for the first distortion, thus improving welfare?
- More rigorous analysis necessary.

11

Optimal tax theory on capital taxation

- The effect of taxation of income from savings is to increase the price of future consumption relative to that of current consumption.
- Should we tax future consumption more than current consumption?
- Go back to Ramsey results (identical individuals). Yes, if future consumption is more complementary to leisure than current consumption (Corlett-Hague result).
- How do we test this empirically?

12

Optimal tax theory on capital taxation

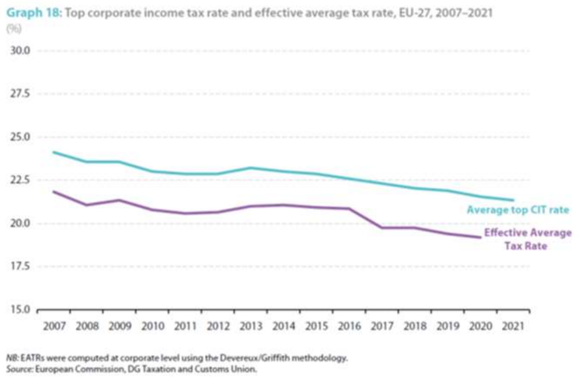
- Check whether a permanent wage increase translates into an increase of future consumption smaller than that in current consumption.
- No convincing answer.
- What if future and current consumption are equally complementary to leisure, but individuals are heterogeneous?
- The Ramsey formula indicates that future consumption should be discouraged more if the rich tend to defer their consumption more than the poor.
- Indeed rich save more, so this is an argument to tax capital.

13

Optimal capital taxation and practice

- What has happened in capital tax rates in the real world over the last years?
- OECD data on statutory corporate taxation show that these rates fell sharply from mid 1980s until 2022.
  - United Sates 49.8% ⟶ 25.8%.
  - United Kingdom 40% ⟶ 19%.
  - Australia 46% ⟶ 30%.
  - Germany 60% ⟶ 29.8%.
  - France 50% ⟶ 25.8%.
  - Greece 49% ⟶ 22%.

14



Source: Taxation trends in the EU 2021

15

Corporation tax in Greece

- Who is liable for corporation tax? (Φόρος εισοδήματος νομικών προσώπων)
- Στην Ελλάδα σε αυτόν τον φόρο υπάγονται οι:
  - Ανώνυμες εταιρείες (ΑΕ)
  - Όλες οι εταιρείες εκτός από τις προσωπικές
  - Δημόσιες, δημοτικές και κοινοτικές επιχειρήσεις κερδοσκοπικού χαρακτήρα,
  - Αλλοδαπές επιχειρήσεις
  - Συνεταιρισμοί
  - Μη κερδοσκοπικά νομικά πρόσωπα
  - ΙΚΕ

16

Structure of the corporate income tax

Revenue (gross)
\- Expenses incurred earning revenues
Taxable Income
* Tax rate (e.g.20%)
Tax

17

Expenses incurred earning revenues (main categories)

- Employee compensation (wages and benefits)
- Interest, but not dividends.
  - When corporations borrow, interest payments to lenders are deducted from taxable income.
  - When corporations finance their activities by issuing stock, dividends paid to stockholders are *not* deductible from corporate earnings.

18

Expenses incurred earning revenues (main categories)

- Depreciation: the extent to which an asset decreases in value during a period of time.
- Tax life of an asset: the number of years an asset can be depreciated.
  - In Greece, it varies from 1% for dams in water works to 70% for DVD rentals.
- What is the value of depreciation allowances?
- Define T = tax life
- $D(n)$ = the proportion of the asset that can be written off against taxable income in the nth year.
- θ = corporation tax rate
- Present value of tax savings:
- $\psi = \dfrac{\theta * D(1)}{1+r} + \dfrac{\theta * D(2)}{(1+r)^2} + \ldots + \dfrac{\theta * D(T)}{(1+r)^T}$

Treatment of Dividends versus Retained Earnings

- Double taxation: taxing corporate income first at the corporate level and again when it is distributed to stockholders.
  - Dividends paid are not deductible from corporation income and hence are subject to the corporation income tax.
  - When distributed they are taxed at a personal level too.
- This creates incentives for firms to retain earnings rather than pay them out as dividends.
- In Greece, dividend income was not taxed at a personal level until 2009.

Dividend taxation with the personal income tax

- Varies a lot between countries (2023 data from OECD)
  - Unites States 28.87%
  - Australia 47%
  - Greece 5%
  - France 34%
  - Germany 26.38%

Overall (PIT+CIT) taxation of dividend income

- Varies a lot between countries (2023 data from OECD)
  - Unites States 47.20%
  - United Kingdom 54.51%
  - Australia 47%
  - Greece 25.90%
  - France 51.04%
  - Germany 48.42%

Η υψηλή φορολόγηση των μερισμάτων ενθαρρύνει τις επενδύσεις;
Διανομή μερίσματος ως δείκτης ευρωστίας των επιχειρήσεων;

Φορολογία εισοδήματος επιχειρήσεων

Πίνακας 3. Φορολογία κερδών και μερισμάτων

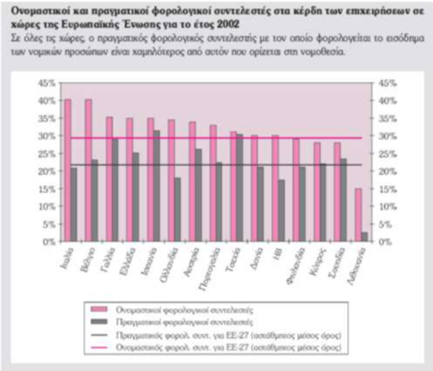
	Φορολογία κερδών στην εταιρεία					Φορολογία μερισμάτων				
	2005	2010	2012	2013	2022	2005	2010	2012	2013	2022
Αυστρία	25.0	25.0	25.0	25.0	25.0	43.8	43.8	43.8	43.8	45.6
Βέλγιο	34.0	34.0	34.0	34.0	25.0	43.9	43.9	50.5	50.5	47.5
Γαλλία	34.9	34.4	34.4	36.4	25.8	55.9	54.2	59.7	64.4	51.0
Γερμανία	38.9	30.2	30.2	30.2	29.8	52.4	48.6	48.6	48.6	48.3
Δανία	28.0	25.0	25.0	25.0	22.0	59.0	56.5	56.5	56.5	54.8
ΕΛΛΑΔΑ	***32.0***	***24.0***	***20.0***	***26.0***	***22.0***	***32.0***	***31.6***	***40.0***	***33.4***	***25.9***
Εσθονία	24.0	21.0	21.0	21.0	20.0	24.0	21.0	21.0	21.0	20.0
Ην. Βασίλειο	30.0	28.0	24.0	23.0		47.5	54.0	51.4		
Ιρλανδία	12.5	12.5	12.5	12.5	12.5	49.3	53.6	54.5	54.5	57.1
Ισπανία	35.0	30.0	30.0	30.0	25.0	50.0	43.3	48.9	48.9	44.5
Ιταλία	33.0	27.5	27.5	27.5	24.0	41.4	36.6	42.0	42.0	43.8
Λουξ/ργο	30.4	28.6	28.8	29.2	24.9	44.0	42.5	42.7	43.4	40.7
Ολλανδία	31.5	25.5	25.0	25.0	25.8	48.6	44.1	43.8	43.8	45.8
Ουγγαρία	16.0	19.0	19.0	19.0	9.0	45.4	39.3	32.0	32.0	22.7
Πολωνία	19.0	19.0	19.0	19.0	19.0	34.4	34.4	34.4	34.4	34.4
Πορτογαλία	27.5	26.5	31.5	31.5	31.5	42.0	41.2	48.6	50.7	50.7
Σλοβακία	19.0	19.0	19.0	23.0	21.0	19.0	19.0	19.0	23.0	26.5
Σλοβενία	25.0	20.0	18.0	17.0	19.0	49.4	36.0	34.4	37.8	41.3
Σουηδία	28.0	26.3	26.3	22.0	20.6	49.6	48.4	48.4	45.4	44.4
Τσεχία	26.0	19.0	19.0	19.0	19.0	37.1	31.2	31.2	31.2	37.6
Φιλανδία	26.0	26.0	24.5	24.5	20.0	37.8	40.5	41.4	41.4	43.1
ΕΕ-21 (Μ.Ο)	**27.4**	**24.8**	**24.5**	**24.8**	**22.0**	**43.2**	**41.1**	**42.5**	**42.5**	**41.3**

Πηγή: Επεξεργασία στοιχείων από τη βάση δεδομένων του ΟΟΣΑ (OECD Tax Database)

Μεταβολές στα δηλωθέντα εισοδήματα ανά πηγή προέλευσης εισοδήματος, 2014-2021

Πηγή: Επεξεργασία δεδομένων – Εισόδημα Φυσικών Προσώπων, Ετήσια Στατιστικά Δελτία, ΑΑΔΕ (διάφορα τεύχη)

Effective versus Statutory Tax Rate on Corporate Capital



- Statutory rate ≠ effective rate, because of interest deductibility, depreciation allowances, inflation, double taxation.

25

Taxation of multinational corporations

- Bilateral double taxation agreements
  - Multinational corporations in principle pay taxes at standard rate of the parent company on global taxable income
  - The multinational company gets credit for taxes paid abroad
  - The tax credit cannot exceed the amount that would have been paid in the country of the parent company

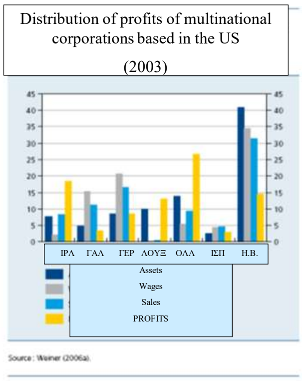
26

Taxation of multinational corporations

- Subsidiaries: A company owned by one corporation but incorporated separately from the parent corporation.
  - Deferral of taxes on income from foreign enterprise
  - Repatriation
- Income allocation
  - Arm's length system
  - Transfer-pricing problem

27

Taxation of multinational corporations



28

28

Corporate tax harmonisation in the EU

- Corporate tax systems (as all direct taxes) are the responsibility of Member States.
- Current system of corporate income taxation in the EU is based on separate accounting:
  - The taxable income of a multinational is determined as the income generated in each jurisdiction.
  - Arm's length prices used for intra-company transactions

29

Corporate tax harmonisation in the EU

- Corporate tax systems in Europe are claimed to be highly inefficient, primarily due to the fact the multinationals operating in different EU countries have to file separate accounts in each country they operate.
- Problematic because:
  - Multinationals face 27 different tax and accounting systems
  - There are opportunities for profit shifting to low-tax jurisdictions, causing disputes among governments and firms on the appropriate transfer prices for intra-company transactions.

30

Table 55: Taxes on capital as % of GDP - Income of corporations

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Difference 2011-2021 (pp)	Ranking 2021	Revenue 2021 (million EUR)
EU-27	2.2	2.4	2.5	2.5	2.6	2.5	2.6	2.7	2.8	2.8	2.8	2.5	3.0	0.5		436 044
EA-19	2.2	2.3	2.5	2.6	2.6	2.5	2.6	2.7	2.8	2.8	2.8	2.5	3.0	0.5		368 313
Belgium	2.3	2.5	2.8	3.0	3.1	3.1	3.3	3.4	4.1	4.3	3.7	3.2	3.8	1.0	6	19 094
Bulgaria	2.3	2.0	1.9	1.9	2.1	2.1	2.3	2.3	2.4	2.3	2.4	2.2	2.9	1.0	14	2 055
Czechia	3.3	3.2	3.2	3.1	3.2	3.3	3.4	3.5	3.4	3.5	3.3	3.1	3.7	0.5	7	8 912
Denmark	1.9	2.3	2.2	2.6	2.8	2.8	2.8	2.8	3.2	2.7	3.1	2.8	3.7	1.5	8	12 593
Germany	1.9	2.0	2.4	2.5	2.4	2.4	2.4	2.7	2.7	2.8	2.6	2.2	3.1	0.7	11	110 195
Estonia	1.8	1.3	1.2	1.4	1.7	1.7	2.1	1.7	1.5	2.0	1.8	1.6	1.5	0.3	26	481
Ireland	2.3	2.4	2.2	2.3	2.4	2.4	2.6	2.8	2.8	3.2	3.1	3.2	3.6	1.4	9	15 488
Greece	2.5	2.6	2.1	1.1	1.2	1.9	2.2	2.5	2.0	2.2	2.2	1.2	1.8	-0.3	**25**	3 245
Spain	2.2	1.8	1.8	2.1	2.0	2.0	2.2	2.2	2.2	2.5	2.1	2.0	2.7	0.9	17	32 339
France	1.8	2.5	2.8	2.8	2.9	2.8	2.8	2.8	3.1	2.9	3.0	2.9	3.0	0.2	12	75 420
Croatia	2.5	1.9	2.3	2.0	2.0	1.7	1.8	2.2	2.3	2.2	2.3	2.3	2.1	-0.2	24	1 205
Italy	2.9	2.8	2.7	2.9	3.1	2.7	2.7	2.6	2.5	2.4	2.5	2.5	2.4	-0.3	20	43 093
Cyprus	5.9	5.5	6.2	5.7	6.5	6.4	5.8	5.5	5.8	5.8	5.6	5.8	6.5	0.3	1	1 554
Latvia	1.5	1.0	1.4	1.6	1.6	1.5	1.6	1.7	1.6	1.1	0.2	0.7	0.8	-0.6	27	286
Lithuania	1.8	1.0	0.8	1.3	1.4	1.4	1.5	1.6	1.5	1.5	1.6	1.6	2.1	1.3	23	1 183
Luxembourg	5.3	5.4	4.8	4.9	4.5	4.1	4.2	4.4	5.0	6.3	6.0	4.8	4.5	-0.3	3	3 277
Hungary	4.1	2.9	2.9	3.1	3.2	3.4	3.6	4.1	3.8	3.1	3.1	3.0	2.9	0.0	13	4 481
Malta	5.9	5.6	5.3	5.7	6.0	5.9	5.9	6.2	6.2	5.3	5.5	4.6	5.1	-0.2	2	760
Netherlands	2.1	2.3	2.2	2.1	2.1	2.5	2.7	3.3	3.3	3.5	3.7	3.1	3.9	1.7	5	33 417
Austria	1.8	2.0	2.1	2.1	2.2	2.2	2.3	2.4	2.5	2.8	2.8	2.2	2.8	0.7	15	11 445
Poland	2.2	2.0	2.0	2.1	1.8	1.8	1.8	1.8	1.9	2.1	2.2	2.3	2.6	0.6	18	15 024
Portugal	2.8	2.7	3.1	2.8	3.3	2.8	3.1	3.0	3.2	3.3	3.1	2.8	2.4	-0.7	21	5 155
Romania	2.3	2.0	2.2	1.8	2.0	2.1	2.3	2.3	2.0	2.1	2.1	1.9	2.2	0.0	22	5 342
Slovenia	1.8	1.8	1.6	1.2	1.2	1.4	1.5	1.6	1.8	1.9	2.0	2.0	2.5	0.9	19	1 291
Slovakia	2.7	2.6	2.5	2.5	3.0	3.5	3.8	3.7	3.6	3.5	3.3	3.2	3.9	1.4	4	3 845
Finland	1.9	2.4	2.6	2.1	2.3	1.9	2.2	2.2	2.7	2.5	2.5	2.1	2.7	0.1	16	6 745
Sweden	2.6	3.1	2.9	2.4	2.6	2.6	2.9	2.9	2.9	3.0	3.1	3.0	3.4	0.5	10	18 119
Iceland	1.6	1.0	1.8	1.9	2.1	3.2	2.3	2.5	3.1	2.4	2.1	2.2	2.1	0.3		446
Norway	5.0	5.3	5.4	5.2	4.4	4.0	2.9	3.1	3.1	3.7	3.8	3.0	5.2	-0.2		21 378

Source: Taxation Trends in the EU, 2023

Corporate tax harmonisation in the EU

- There have been several attempts in the past to harmonise corporate taxes:
  - Van den Templen Report (1970) – included harmonisation of tax rates (on which base?)
  - Ruding Report (1992) (tax practices that harm competition, proposals to harmonise corporate tax base and impose a lower limit on the corporate tax rate of 30%)
  - Primarolo Group on unfair tax practices (1999)
- Attempts for harmonisation have failed primarily for two reasons:
  - Unanimity principle
  - Individuals Member States have widely divergent interests. (UK and New Member States vs founding States)

Corporate tax harmonisation in the EU

- European Commission proposes alternative system which includes
  - Consolidation (each multinational computes its EU-wide consolidated profits) and
  - Formula apportionment (profits are allocated to Member States according to an apportionment formula containing e.g. employment, payroll, assets, sales)
  - Each Member State taxes allocated profits at its own tax rate
- In determining the consolidated tax base, the European Commission aims at a common definition of the tax base and a single formula – Common Consolidated Corporate Tax Base (CCCTB)

Corporate tax harmonisation in the EU

- This is the case in the US and in Canada:
  - The consolidated tax base is apportioned to individual states or counties via a formula.
  - Factors used include sales, payroll and assets.
  - States can apply their own rate to the apportioned part of the corporate tax base.

Corporate tax harmonisation in the EU

- The choice of the apportionment formula is important because:
  - it determines the distribution of the tax base across jurisdictions (e.g. a state with high capital-intensive production will receive a relatively large share of profits if capital is used in the formula)
  - As long as tax rates differ across states, the allocation of employment and investment will be influenced by the formula apportionment.

Evidence in the US and Canada that the formula has an impact on factor allocation

Corporate tax harmonisation in the EU

- Even this less ambitious proposal has not gone through yet.
- Even if it went through, some problems would remain:
  - Transfer pricing vis-à-vis third countries would remain.
  - What if multinational start allocating profits according to factors in apportionment formula?
- Recent study (Bettendorf et al, 2010) finds that welfare gains from adopting CCCTB are not large.

Corporate tax harmonisation in the EU

- 17 May 2019, European Commissioner J-P Moscovici presented the strategy "Business Taxation 21". It includes three pillars:
  - Design a tax system that will cover digital taxation (companies operating without physical presence)
  - Adopt a minimum corporate tax rate on corporate profits in the EU
  - Avoid distortions from double taxation

37

Gabriel Zucman "Taxing across borders: tracking personal wealth and corporate profits" JEcPer 2014

- Currently in the US, 1/3 of all tax revenues comes from capital taxes and less than 30% of these taxes came from the corporate income tax.
- Currently in Europe, 20% of all tax revenues comes from capital taxes and 1/3 of these taxes came from the corporate income tax.
- The practicality and enforceability of the corporate income tax is seriously challenged by globalization

38

Gabriel Zucman "Taxing across borders: tracking personal wealth and corporate profits" JEcPer 2014

- Arms-length taxation and bilateral agreements are the two core principles multinationals exploit.
- "Treaty shopping" – choice of thousands of bilateral treaties is used by carefully choosing the location of affiliates
- Example: Google's "double Irish Dutch sandwich" strategy, Google uses two Irish affiliates and a Dutch shell company

1. "Google Holdings" incorporated in Ireland (but for Irish tax purposes is a resident of Bermuda)
2. "Ireland Limited" is a subsidiary of "Google Holdings" and is granted the license to use Google's technologies – so that e.g. France pays royalties to this company for the right to use the firm's technologies.
3. Detour profits from "Ireland Limited" to "Google Holdings", but Ireland withholds a tax on royalty payments to Bermuda, so detour via a Dutch shell company named "Google BV" is necessary.

End result: according to Google's company filings, tax rate on foreign profits is between 2% and 8%.

39

Gabriel Zucman "Taxing across borders: tracking personal wealth and corporate profits" JEcPer 2014

- Next problem: how to repatriate profits, since in the US when offshore profits are repatriated, they are taxed at 35% with a credit against taxes previously paid.
- Way out:
  - Use profits to purchase foreign companies (in 2011 Microsoft bought Skype for $8.5 billion).
  - Shift head offices overseas by merging with a foreign corporation
  - Etc.

Huge amount of resources wasted in treat shopping and transfer pricing (e.g. the tax department of Gen. Electric employs 1000 individuals)

40

US, Inversions

Other way for U.S. corporations to dodge U.S. corporate tax: change country of incorporation to a tax haven

Cannot just say "I'm an Irish corporation now." Must merge with an Irish corporation first, called "corporate inversion"

Ex. Medtronic (maker of heart pacemakers) merged with Irish Covidien in 2014 → Declared legal headquarters in Ireland → Avoided U.S. tax on $14bn held overseas

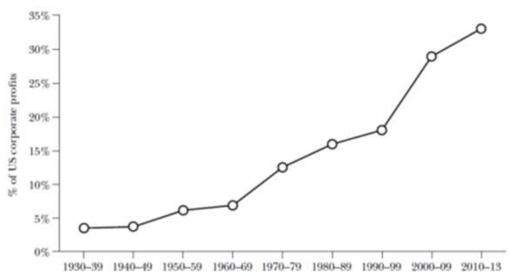
Potential rationale for low U.S. corporate tax rate: Corporations will move headquarters/jobs overseas

No evidence though that many actual jobs move (e.g. Medtronic kept operational headquarters in Minnesota)

41

Gabriel Zucman "Taxing across borders: tracking personal wealth and corporate profits" JEcPer 2014

Figure 1
The Share of Profits Made Abroad in US Corporate Profits

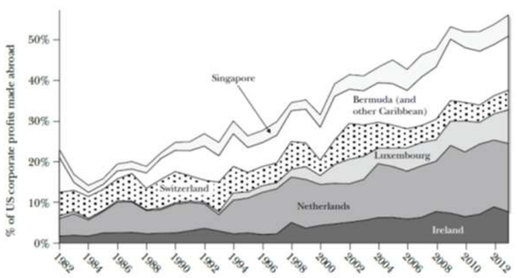


Source: Author's computations using National Income and Product Accounts data.

42

Gabriel Zucman "Taxing across borders: tracking personal wealth and corporate profits" JEcPer 2014

Figure 2
The Share of Tax Havens in US Corporate Profits Made Abroad



Source: Author's computations using balance of payments data. See online Appendix.

43

US repatriation holidays

Owners eventually want the income repatriated from abroad and paid out to them as dividends

Corporations typically pay 35% tax on foreign profits once repatriated

Massive amount of profits kept abroad (about \$2 Tr) → Temptation for politicians to offer repatriation tax holiday

American Jobs Creation Act of 2004: Reduced tax rate on repatriated profits from 35% to 5.25% for 2005 only: surge in repatriations in 2005 (by \$360bn)

2017 Trump tax plan proposed a new repatriation holiday with 10% tax rate

44

Gabriel Zucman "Taxing across borders: tracking personal wealth and corporate profits" JEcPer 2014

Figure 4
US Corporate Profits Retained in Tax Havens

Source: Author's computations using balance of payments data. See online Appendix.

45

U.S. company foreign profits relative to GDP, 2010

	Profits as a percent of GDP
Canada	3.3
France	0.6
Germany	0.4
Italy	0.3
Japan	0.4
UK	2.1
Weighted average, G-7	0.7

	Profits as a percent of GDP
Cyprus	13.6
Ireland	41.9
Luxembourg	127.0
Netherlands	17.1
Switzerland	12.3
Panama	0.1
Singapore	4.7
Hong Kong	2.6

Larger countries on tax haven lists and Netherlands

Source: Jane G. Gravelle, *Tax Havens: International Tax Avoidance and Evasion*, Congressional Research Service, 1/15/2015

46

U.S. company foreign profits relative to GDP, 2010

	Profits as a percent of GDP
Canada	3.3
France	0.6
Germany	0.4
Italy	0.3
Japan	0.4
UK	2.1
Weighted average, G-7	0.7

	Profits as a percent of GDP
Cyprus	13.6
Ireland	41.9
Luxembourg	127.0
Netherlands	17.1
Switzerland	12.3
Panama	0.1
Singapore	4.7
Hong Kong	2.6

	Profits as a percent of GDP
Bahamas	70.8
Barbados	5.7
Bermuda	1,614.0
British Virgin Islands	1,803.7
Cayman Islands	2,065.5

Smaller countries on tax haven lists

Source: Jane G. Gravelle, *Tax Havens: International Tax Avoidance and Evasion*, Congressional Research Service, 1/15/2015

47

FORTUNE

Apple Leads These Companies With Massive Overseas Cash Repatriation Tax Bills

By LISA MARIE SEGARRA January 18, 2018

A new part of the GOP tax law has some of the United States' biggest companies, from Apple to Goldman Sachs, already reporting major losses. The expenses stem from a one-time tax charge to repatriate, or return to its home country, overseas cash or funds.

Overseas cash repatriation is an issue that's been important to multinational corporations for a long time. It's estimated that more than \$2.6 trillion in corporate profits have been sitting in foreign bank accounts waiting for a tax break to be freed up. Apple's overseas cash alone amounted to \$252.3 billion, a treasure trove the company had been loathe to repatriate due to how much it would lose paying foreign cash taxes.

The new GOP tax law allows U.S. companies to repatriate cash at reduced rates for a limited time. As a part of the tax reform, repatriation tax rates could be as low as 8%, compared to the 35% companies traditionally pay to repatriate that money, the New York *Times* reports.

While some companies have announced what they'll pay for the repatriation taxes, others are expected to report their losses in the near future. For instance, Microsoft has yet to announce exactly how it will be affected by the tax reform, but its latest quarterly report cites the company has \$132 billion in overseas funds. Here's a list of the companies with the biggest overseas tax bills, updated regularly as the bucks come home.

48

Apple

Apple has the largest overseas cash stash out of any United States company, according to Market Watch. The company reported it would pay $38 billion for a one-time tax payment to repatriate its cash holdings, according to The Wall Str *Journal*. The expense accounts for 15.5% of the $252.3 billion Apple had in overseas cash.

Citigroup

Citigroup reported an $18 billion quarterly toss Tuesday — after paying $22 billion in repatriation taxes, according to Reuters.

In tweet posted on Citi's account, CEO Michael Corbat said the "tax reform is a clear net positive."

Citi
@Citi

On balance, tax reform is a clear net positive for Citi and its shareholders and will help us achieve our goals of improving our return on and increasing our return of capital. – CEO Corbat
on.citi/2r8m81S
6:23 PM - Jan 16, 2018

7 See Citi's other Tweets

49

Goldman Sachs

Wall Street bank Goldman Sachs announced its first quarterly loss in six years, due to the one-time overseas cash tax payment. According to Reuters, the company paid $4.4 billion in repatriation taxes due to the new regulations, an amount that was entirely expected by Wall Street. As a result, the company posted a $1.93 billion loss, news that sent the company's stock down, despite the expected financial blow.

Bank of America

Repatriation tax took a big chunk out of Bank of American's quarterly profit, according to Reuters, which reported that the company will pay pay $2.9 billion due to the new legislation. That was enough to cut the bank's quarterly profits in half.

American Express

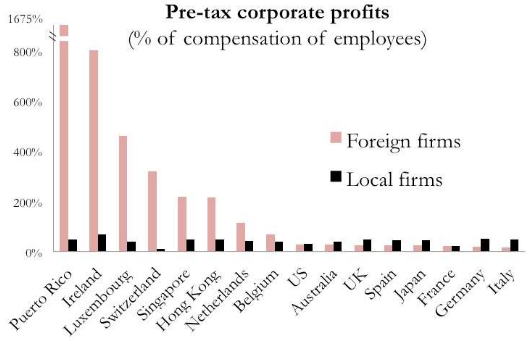
Credit card company American Express suffered its first quarterly loss in over two decades due to the new tax law, CNN Money reported. American Express is paying $2.6 billion in repatriation taxes, and saw a total loss of $1.2 billion, according to Reuters, leading to its first quarter in the red since 1992.

JP Morgan Chase

The largest U.S. bank said it will have to pay $2.4 billion for its overseas cash, CNN Money reported. Company CEO Jamie Dimon believes that repatriation could serve as a sort of economic stimulus for the U.S., according to CNBC.

50

Torlsov, Wier and Zucman (2020), The Missing Profit of Nations



51

Historic international tax agreement in 2021 GLOBAL MINIMUM TAX

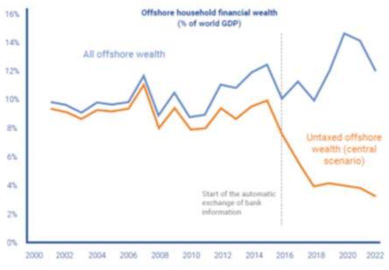
- In October 2021, 136 countries and jurisdictions agreed on the swift implementation of a major reform of the international corporate tax system, ie the introduction of a global minimum tax of 15%
- It starts in 2023 the proposal was designed to discourage tax-motivated profit shifting and base erosion by multinational corporations (MNCs).

- A global corporate minimum tax would apply a standard tax rate to a defined corporate income base worldwide.
- Implementing a global corporate minimum tax requires international agreement and enactment by each signatory country.
- In July 2021, more than 130 countries agreed to support an Organisation for Economic Co-Operation and Development (OECD) tax reform framework to impose a global corporate minimum tax on foreign profits of large multinational corporations (MNCs).[2]
- On October 8, 136 countries and jurisdictions signed on to the OECD proposal, which features a 15% corporate minimum tax.[1]
- The OECD framework is intended to discourage nations from tax competition through lower tax rates that results in corporate profit shifting and tax base erosion.
- The OECD estimates that its plan will provide countries with new tax revenues of USD 150 billion annually.

52

Zucman et al (2024) Global Tax Evasion Report Good news – the automatic exchange of bank information – a breakthrough

Figure 1
The success of the automatic exchange of bank information



Notes: This figure reports the evolution of global household offshore financial wealth (expressed as fraction of world GDP), and of untaxed offshore financial wealth in the central scenario detailed in chapter 1. In this scenario 27% of offshore financial wealth is untaxed in 2022, representing 3.2% of world GDP. Source: for global offshore financial wealth, Souleymane Faye, Sarah Godar, and Gabriel Zucman (2023), "Global Offshore Wealth 2001 – 2022", EU Tax Observatory working paper; for untaxed wealth: EU Tax Observatory computations; see chapter 1 for complete details.

53

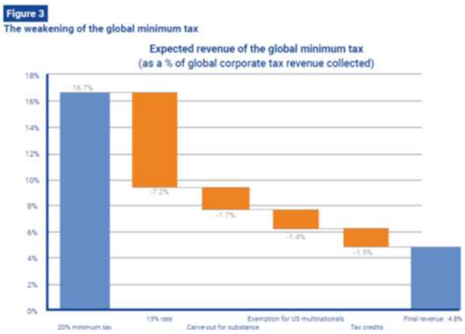
Zucman et al (2024) Global Tax Evasion Report Bad news – profit shifting by multinational companies has exploded and remains high

Figure 2
Profit shifting by multinational companies has exploded and remains high

Notes: This figure reports the evolution of the global tax revenue loss caused by corporate profit shifting to tax havens, expressed as a fraction of global corporate tax revenue collected. For reference we indicate the start of the Base Erosion and Profit Shifting process in 2015 and the Tax Cuts and Jobs Act in 2018. Source: Ludvig Wier and Gabriel Zucman (2023), *"Global Profit Shifting 1975-2020"*, EU Tax Observatory working paper, updated to 2022 by the EU Tax Observatory; see chapter 2 for complete details.

54

Zucman et al (2024) Global Tax Evasion Report Bad news continued– the global minimum tax on multinational firms has massively weakened



55

Zucman et al (2024) Global Tax Evasion Report Ugly news – Billionaires often avoid the income tax often by holding companies

Notes: This figure reports estimates of effective tax rates by pre-tax income groups and for billionaires in France, the Netherlands, and the United States. These estimates include all taxes paid at all levels of government and are expressed as a percent of pre-tax income. P0-10 denotes the 10% of adults at the bottom of the pre-tax income distribution, P10-20 the next decile, etc. Pre-tax income includes all national income (measured following standard national account definitions) before government taxes and transfers and after the operation of the pension system. National income excludes unrealized capital gains but includes the retained earnings of companies. Sources: see chapter 4.

56

Main references

- *Rosen, H.S. and T. Gayer, (2008), *Public Finance*, 8th edition, Mc Graw-Hill, Chapter 19 (pp. 438-461).
- *Rosen, H.S, T.Gayer, Β.Θ. Ράπανος και Γ. Καπλάνογλου, (2009), Δημόσια Οικονομική: Σύγχρονη Θεωρία και Ελληνική Πραγματικότητα, τόμος Β, κεφ. 18 (σ. 271-316), Εκδόσεις Κριτική.
- *Auerbach, A.J., M.P. Dereveux and H.Simpson, (2010), "Taxing Corporate Income", in *Dimensions of Tax Design, The Mirrlees Review*, pp. 837-893, Oxford University Press, UK.
- *Institute for Fiscal Studies, 2011, "Taxing Corporate Income", in *Mirrlees Review: Reforming the Tax System for the 21st Century, Tax by Design*, Chapter 17.
- EU Tax Observatory (2024) Global Tax Evasion Report.
- Barake, M., P-E Chouc, T. Neef and G.Zucman (2021), "Revenue effects of the global minimum tax: country-by-country estimates", EU-Tax Observatory, Note No. 2, October 2021.
- Gravelle, J.G. (2015), "Tax Havens: International Tax Avoidance and Evasion", Congressional Research Service, Cornell University, ILR School.
- Hassett, K.A. and G.E. Metcalf, (1999), "Investment with Uncertain Tax Policy: Does Random Tax Policy Discourage Investment?", *The Economic Journal,* Vol. 109, No. 457 (Jul., 1999), pp. 372-393.
- Mintz, J. (1995), "The Corporation Tax: A Survey", *Fiscal Studies*, Vol. 16, pp. 23–68.

57