Lecture 13: Tax avoidance

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Course schedule

Syllabus

Week	Date	Topic	Chapters	Lecturer
1	Feb 18	Economic rationale for the government	1, 2, 3, 4, 5	Miroslav Palanský
2	Feb 25	Public budgets	10, 26, 27	Natalia Li
3	Mar 3	Inequality		Marek Šedivý
4	Mar 10	Old-age pensions		Ondřej Schneider
5	Mar 17	Health economics	12	Ondřej Schneider
6	Mar 24	Public choice theory	7, 8	Miroslav Palanský
7	Mar 31	Cost-benefit analysis	6, 10, 11	Petr Janský
8	Apr 7	Externalities	9	Miroslav Palanský
9	Apr 14	Public procurement		Miroslav Palanský
10	Apr 21	Taxation, tax incidence	17, 18, 19	Miroslav Palanský
11	Apr 28	Optimal taxation, personal income taxation	20, 22	Miroslav Palanský
12	May 5	Corporate taxation	21, 23	Petr Janský
13	May 12	Tax avoidance	24, 25	Petr Janský

Course requirements

▸ Syllabus

Requirement	Maximum points	Announced	Deadline
Problem Set 1	10	Mar 24	Mar 31, 23:59
Problem Set 2	10	Apr 14	Apr 21, 23:59
Wiki Edits	20	Feb 18	Apr 28, 23:59
Final Exam	60	Exam 1 on May 19, 14:00 Exams 2, 3 in June Exam 4 in September	
Total	100		

Today's lecture

Questions

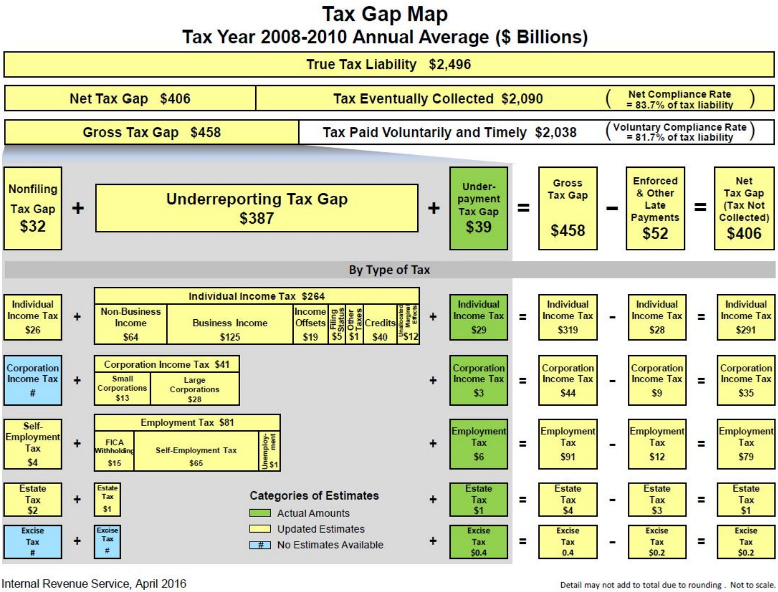
- What is tax avoidance and tax evasion?
- What is international tax competition?

Definitions

- Tax evasion
- Tax avoidance
- Denis Healey, former UK Chancellor of the Exchequer once said "The difference between tax avoidance and tax evasion is the thickness of a prison wall."
- Tax gap

Tax evasion and tax gap

- Review papers: Andreoni et al. (1998) and Slemrod and Yitzhaki (2002)
- Enforcement is costly - both administration by the government and compliance by individuals and firms
- Tax gap $=$ taxes evaded / taxes owed
- Tax evasion substantial - in particular in countries with no third party reporting, with high self-employment and at the top of wealth distribution
- Frequent methodology: randomised audit studies (e.g. USA, Denmark)



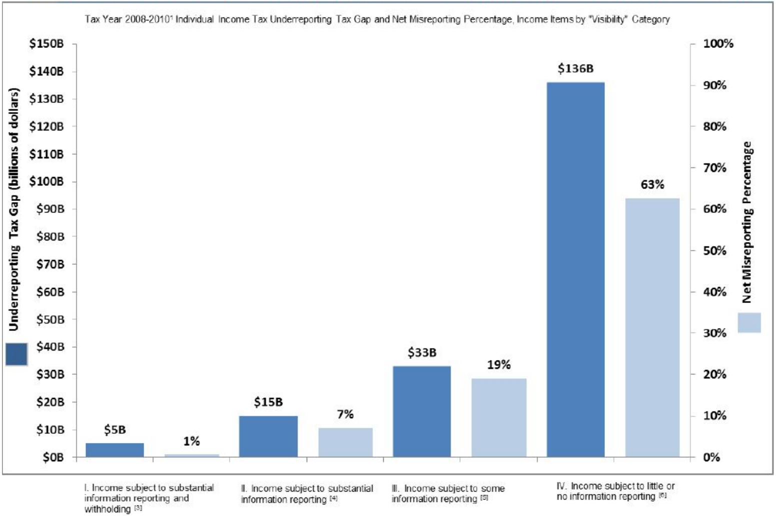
Source: USA's Internal Revenue Service (https://www.irs.gov/newsroom/the-tax-gap)

Table 2.Tax Year 2008–2010[1] Tax Gap Estimates
[Money amounts are in billions of dollars]

Tax Gap Component	TY 2008-2010[1]	Share of Gross Tax Gap
Estimated Total True Liability	**2,496**	
Gross Tax Gap	**458**	**100%**
Overall Voluntary Compliance Rate	**81.7%**	
Net Tax Gap	**406**	
Overall Net Compliance Rate	**83.7%**	
Nonfiling Gap	**32**	**7%**
Individual Income Tax	26	6%
Self-Employment Tax	4	1%
Estate Tax	2	[2]
Underreporting Gap	**387**	**85%**
Individual Income Tax	**264**	**58%**
Non-Business Income	64	14%
Business Income	125	27%
Income Offsets (Adjustments, Deductions, Exemptions)	19	4%
Filing Status	5	1%
Other Taxes	1	[2]
Unallocated Marginal Effects	12	3%
Credits	40	9%
Corporation Income Tax	**41**	**9%**
Small Corporations (assets under $10M)	13	3%
Large Corporations (assets of $10M or more)	28	6%
Employment Tax	**81**	**18%**
Self-Employment Tax	65	14%
FICA and Unemployment Tax	16	3%
Estate Tax	1	[2]
Underpayment Gap	**39**	**9%**
Individual Income Tax	29	6%
Corporation Income Tax	3	1%
Employment Tax	6	1%
Estate Tax	1	[2]
Excise Tax	[3]	[2]

Source: USA's Internal Revenue Service (https://www.irs.gov/newsroom/the-tax-gap)

Figure 1. Effect of Information Reporting on Individual Income Tax Reporting Compliance, Tax Years 2008–2010



Source: USA's Internal Revenue Service (https://www.irs.gov/newsroom/the-tax-gap)

How does the IRS estimate the tax gap?

- Only a fraction of evasion is detected in audits
- Detection controlled estimation model by Feinstein (1991)
- If all auditors were like top auditors, 3 x detected evasion
- IRS extrapolates its detected evasion rates (3.28)
- Results sensitive and real detection rates uncertain

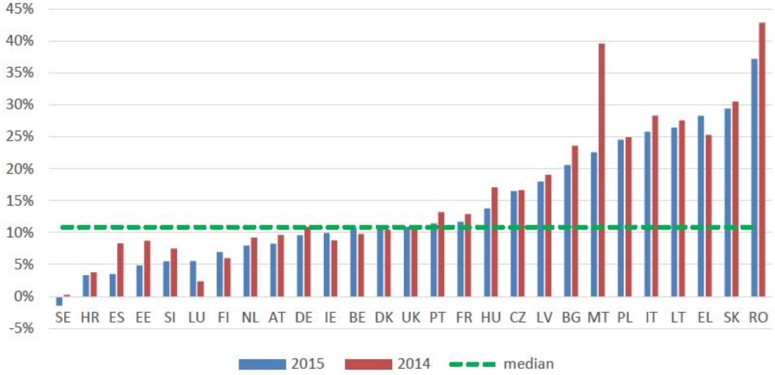
Other estimates of tax gap

- Types of tax gaps (policy, evasion, avoidance, unpaid)
- Corporate income tax
- Value added tax
- European Union

Member state	Taxes covered
Czech Republic	VAT
Estonia	VAT, income tax and social security
Finland	VAT
Germany	VAT and corporation tax
Italy	VAT, income tax and corporation tax
Latvia	VAT, income tax and social security
Poland	VAT
Portugal	VAT
Slovakia	VAT
Slovenia	VAT
UK	VAT, income tax, corporation tax, social security

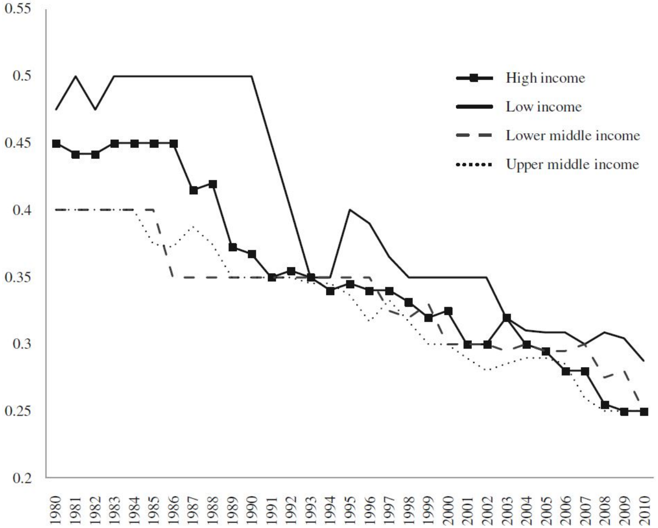
Source: Murphy and Petersen (2018)

Figure 2.1. VAT Gap as a percent of the VTTL in EU-27 Member States, 2015 and 2014



Source: Poniatowski et al. (2017)

Statutory corporate income tax rates



Source: Keen and Konrad (2013)

Questions

- What is international tax competition?
- How companies avoid paying taxes?

Examples of corporate tax avoidance

Source: LastWeekTonight (https://www.youtube.com/watch?v=RKjk0ECXjiQ)

Questions

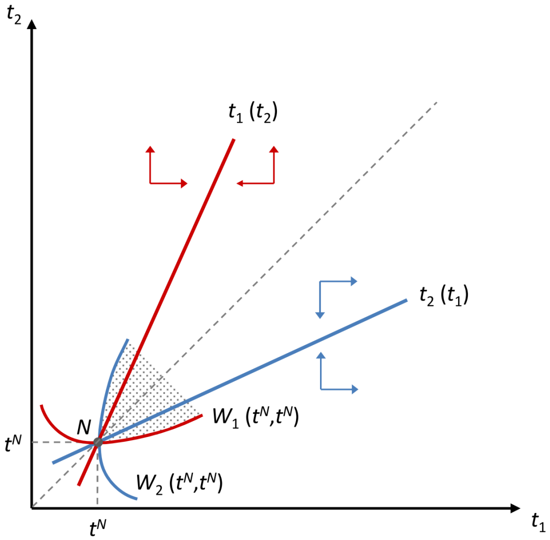
- What is international tax competition?
- How companies avoid paying taxes?
- What can governments do about it?

Theory of international tax competition

- Evidence of corporate tax competition and strategic rate spillovers: Crivelli et al. (2016)
- Theory review: Keen and Konrad (2013)
- Model: Zodrow and Mieszkowski (1986), Wilson (1986)

Theory of international tax competition

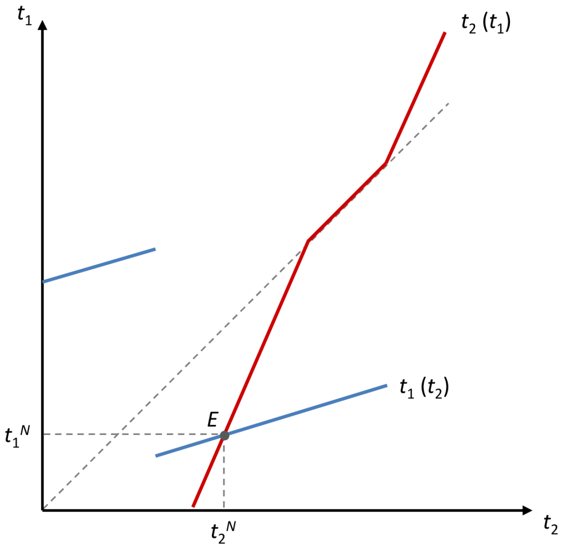
- Production function $f_i(k_i)$; marginal product of capital $f_i'(k_i)$
- All investors the same after-tax rate of return on capital ρ
- Source taxation t_i, tax revenue $t_i k_i$; $f_i'(k_i)$ - $t_i = \rho$
- Governments choose t to maximise welfare of r. consumer W
- A country gains from a collective increase in t certainly only if it is importing capital k
- Tax rates lower for countries with more capital, more productive technologies, value public spending less, are smaller
- Iso-welfare curves and reply functions: Nash equilibrium
- Potential inefficiency arises (t too low): shaded improvement



Source: Keen and Konrad (2013) (The Zodrow, Mieszkowski, and Wilson Model)

Theory of international tax competition

- Zodrow and Mieszkowski (1986), Wilson (1986) model does not capture paper profit shifting
- Kanbur and Keen (1993) model of commodity tax competition
- Costs of profit shifting, small (1) and large (2) country
- Equilibrium with smaller country having a lower tax rate



Source: Keen and Konrad (2013)

Tax gap

- Zodrow and Mieszkowski (1986), Wilson (1986) model: no profit shifting
- Kanbur and Keen (1993) model: only real profit shifting
- Real and paper shifting of tax bases

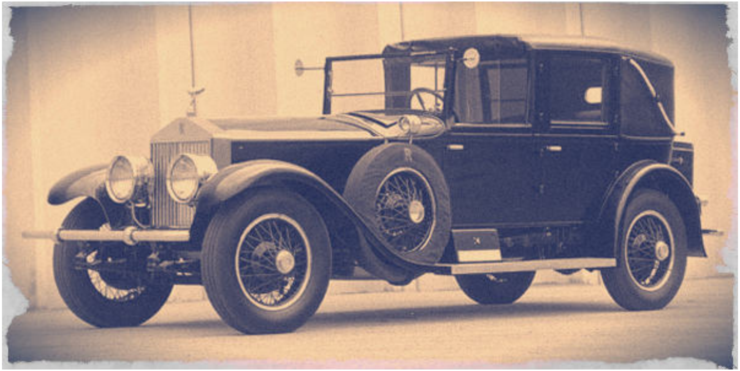
Tax gap

- Tax avoidance, tax evasion, tax fraud
- Multinational enterprises, other firms, individuals
- What is the scale of corporate tax gap due to tax havens?

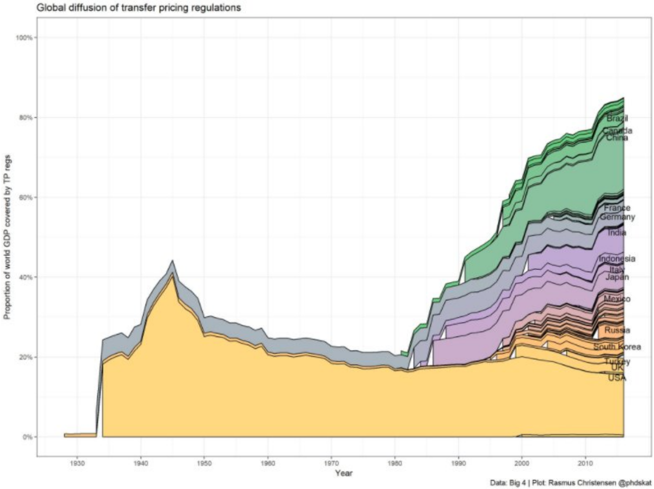
How are MNEs taxed?

- Corporate income tax

Source: Michelangelo



Source: https://www.retrowaste.com



Source: Rasmus Christensen

Profit shifting channels

- One motivation - to shift reported profits to countries with low taxes
- Three main channels recognised in the literature
- Debt shifting, transfer mispricing, intangible assets
- Paper profit shifting (rather than real economic activity)

Evidence of profit shifting

- Hines and Rice (1994) and many follow-up papers
- Reported profits regressed on tax rate, capital, labour and control variables
- Semi-elasticity of reported profits to tax rates (around 0.8-3)
- Review paper by Dharmapala (2014)
- Also: Dharmapala et al. (2011)
- Homeland Investment Act of 2004, repatriation tax amnesty in 2005
- No: increased investment, employment or R and D
- Yes: increased payouts, almost all repatriated profits passed on to shareholders

How big is international corporate tax avoidance?

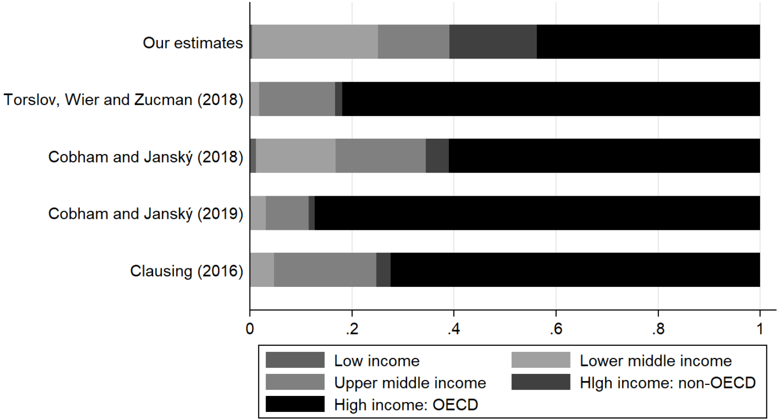
- 9 studies: 100 to 500 billion USD
- Cobham and Janský (2018): USD 500 billion
- UNCTAD (2015) and Janský and Palanský (2019): USD 125-200 billion
- Tørsløv et al. (2018): EUR 200 billion

Corporate tax gap due to tax havens

Reference	USD bn	Data	Country-level
Johansson et al. (2017), OECD	100-240	Orbis	No
Janský and Palanský (2019)	125+	FDI	Yes
Cobham and Janský (2019)	133+	FDI	Yes
IMF (2014)	180	National accounts	Yes
UNCTAD (2015)	200	FDI	No
Tørsløv et al. (2018)	230	Combination	Yes
Clausing (2016)	280+	FDI	Yes
Cobham and Janský (2018)	500	Revenue	Yes
IMF's Crivelli et al. (2016)	600	Revenue	No

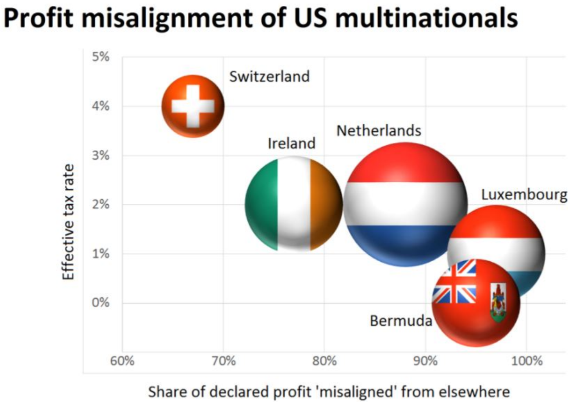
Source: Cobham and Janský (2020)

Corporate tax gap due to tax havens, overall estimates by income group



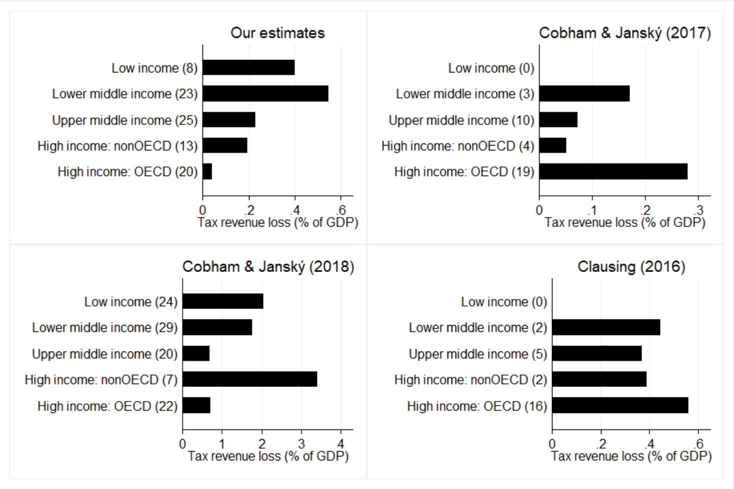
Source: Janský and Palanský (2019)

Who is harming?



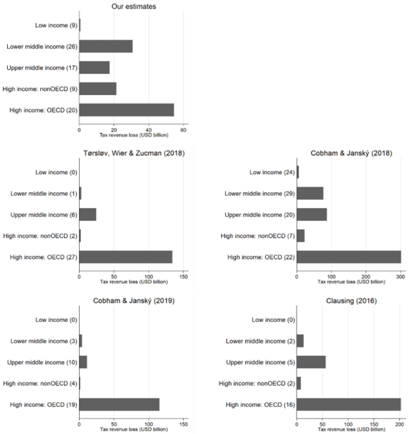
Source: Cobham and Janský (2018)

Who is harmed?



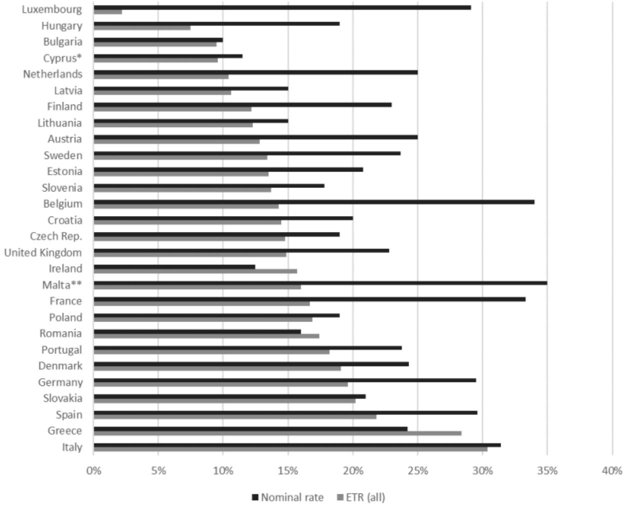
Source: Janský and Palanský (2019)

Corporate tax gaps due to tax havens by income group



Source: Janský and Palanský (2019)

Data-based effective tax rates 2011-15



Source: Janský (2019) on the basis of Garcia-Bernardo et al. (2020)

Conclusion

- Better data can improve the estimation of tax gap
- Promising country-by-country reporting data
- The tax gap can be reduced

Reform options

- Status quo
- Get rid of tax havens
- Adapt the current system: BEPS
- Take a unilateral approach: US
- Unitary taxation: EU

How can we evaluate these reforms?

- Computable general equilibrium models
- Static or dynamic simulations

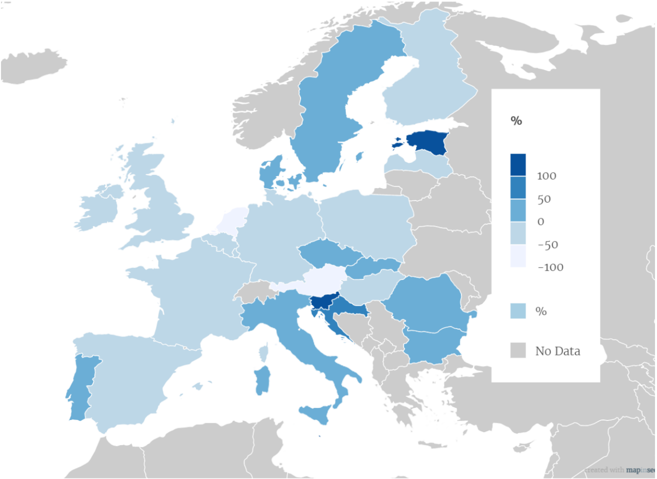
Challenge: Data

- Orbis: tax havens and developing countries
- Tørsløv et al. (2018): only 17% of global profits
- How much tax MNEs pay - no data, only estimates
- Global Recession and loss carry forward

Assessing the EU's proposal

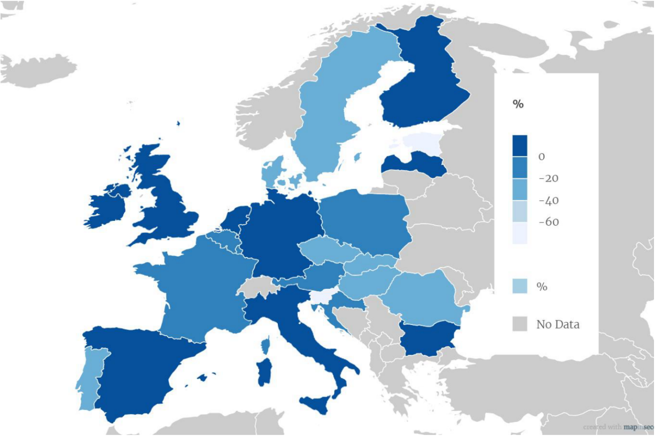
- The European Commission's proposed Common Consolidated Corporate Tax Base (CCCTB)
- CCCTB = unitary taxation at an EU level only
- Consolidate and apportion according to economic activity
- Three steps: (i) status quo, (ii) consolidation, (iii) apportionment
- Orbis data

Baseline results for the loss consolidation - % change relative to sum of positive profits

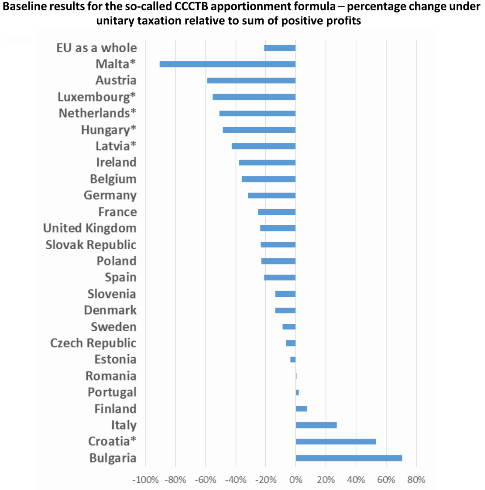


Source: Cobham, Jones, et al. (2017)

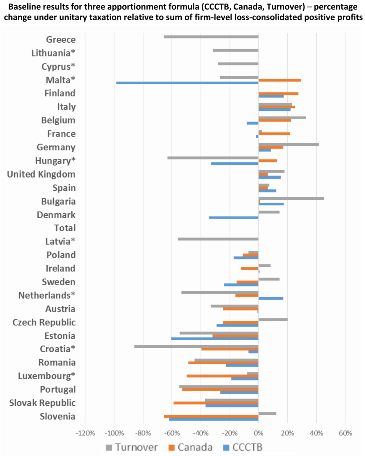
Baseline results for the CCCTB apportionment formula - percentage change under unitary taxation relative to sum of firm-level loss-consolidated positive profits



Source: Cobham, Jones, et al. (2017)



Source: Cobham, Jones, et al. (2017)



Source: Cobham, Jones, et al. (2017)

Assessing the EU's proposal

- Loss consolidation - 21% decrease in profits
- EU only - overlooking profit shifting out of the EU
- Better data needed - and on their way
- Country-by-country reporting data for large MNEs

US tax reform

- The recent US tax reform, Tax Cuts and Jobs Act of 2017
- It lowered the statutory corporate income tax rates (35% to 21%) and brought other important changes for the taxation of multinational enterprises worldwide
- Base erosion anti-abuse tax (BEAT), applies to all big companies operating in the US and targets crossborder payments to foreign affiliates
- Global intangible low-taxed income (GILTI) returns on intangible assets (e.g. patents or software) located abroad (the GILTI tax rate being 10.5% now and 13.125% from 2026 onwards)
- Foreign derived intangible income (FDII) deduction can be used by companies to lower their US taxes
- Uncertain impacts, race to the bottom?

Conclusions

- How we tax MNEs now leads to challenges for revenues, equity and fairness
- How to tax MNEs better is not straightforward
- How to evaluate potential reforms - opportunities for future research

Thank you!

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