## Corporate Taxation and Tax Avoidance

Jiaming Mao

Xiamen University

Copyright © 2014–2018, by Jiaming Mao

This version: Fall 2018

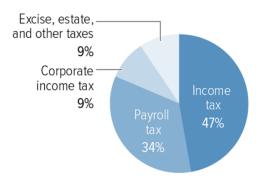
Contact: jmao@xmu.edu.cn

Course homepage: jiamingmao.github.io/principles-of-economics



All materials are licensed under the Creative Commons Attribution-NonCommercial 4.0 International License.

## Sources of Federal Tax Revenue, 2016



Note: "Other Taxes" category includes profits on assets held by the Federal Reserve. Figures do not total 100% due to rounding.

Source: Office of Management and Budget

CENTER ON BUDGET AND POLICY PRIORITIES I CBPP.ORG

#### Personal Income Tax

#### Single

20	18 – Prior Law	2018 – New Law	
Tax Rate	Rate If taxable income is:		If taxable income is:
10%	\$0 to \$9,525	10%	\$0 to \$9,525
15%	\$9,526 to \$38,700		\$9,526 to \$38,700
25%	\$38,701 to \$93,700	22%	\$38,701 to \$82,500
28%	\$93,701 to \$195,450	24%	\$82,501 to \$157,500
33%	\$195,451 to \$424,950	32%	\$157,501 to \$200,000
35%	\$424,951 to \$426,700	35%	\$200,001 to \$500,000
39.6%	\$426,701 or more	37%	\$500,001 or more

U.S. federal personal income tax rates before and after the Tax Cuts and Jobs Act (TCJA) of 2017. The table reports marginal rates.

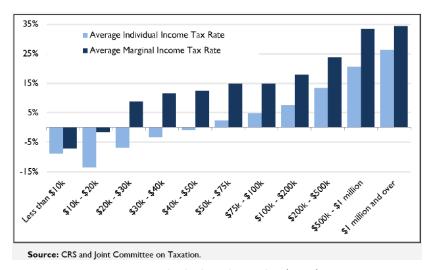
#### Personal Income Tax

#### Married Taxpayers Filing Jointly

2018 – Prior Law		2018 – New Law	
Tax Rate	If taxable income is:	Tax Rate	If taxable income is:
10%	\$0 to \$19,050 <b>10</b> %		\$0 to \$19,050
15%	\$19,051 to \$77,400	12%	\$19,051 to \$77,400
25%	\$77,401 to \$156,150	22%	\$77,401 to \$165,000
28%	\$156,151 to \$237,950	24%	\$165,001 to \$315,000
33%	\$237,951 to \$424,950	32%	\$315,001 to \$400,000
35%	\$424,951 to \$480,050	35%	\$400,001 to \$600,000
39.6%	\$480,051 or more	37%	\$600,001 or more

For a history of U.S. federal personal income tax rates, see here.

### Personal Income Tax



Source: Sherlock and Marples (2018)

## Capital Gains and Dividends Tax

Married Filing	ointly	Single		
Taxable Income Tax Ra		Taxable Income Tax		
Less than \$77,200	0%	Less than \$38,600	0%	
\$77,200 to \$479,000   15%		\$38,600 to \$425,800	15%	
Above \$479,000 20%		Above \$425,800	20%	

Source: Internal Revenue Code.

Figure 1: Maximum tax rates on long-term capital gains and qualified dividends after TCJA

Ta	xable In	come	Tax Rate
\$	0-	50,000	15%
5	0,001-	75,000	25
7	′5,001–	100,000	34
10	0,001–	335,000	39
33	5,001-10	0,000,000	34
10,00	0,001-1	5,000,000	35
15,00	0,001-18	3,333,333	38
18,33	3,334+		35

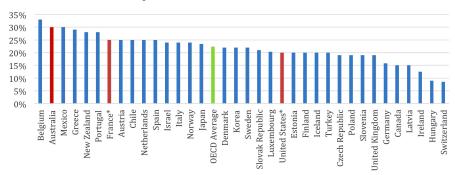
U.S. federal corporate income tax rates before TCJA. The table reports marginal rates. For a history of U.S. federal corporate income tax rates, see here.

Ta	(I) axable Income	(2) Marginal Tax Rate	(3) Total Tax	(3)/(I) Average Tax Rate
\$	45,000	15%	\$ 6,750	15.00%
	70,000	25	12,500	17.86
	95,000	34	20,550	21.63
	250,000	39	80,750	32.30
	1,000,000	34	340,000	34.00
	17,500,000	38	6,100,000	34.86
	50,000,000	35	17,500,000	35.00
	100,000,000	35	35,000,000	35.00

Marginal and average tax rates before TCJA. For large U.S. corporations (taxable income > 18.3mil), both the average and marginal tax rates are 35%.

After TCJA, the U.S. federal corporate income tax rate is a flat 21%

#### Corporate income tax rate in the OECD



- The corporate income tax is one of the primary ways of taxing capital.
- Without the corporate income tax, the personal income tax can be dodged or postponed by individuals incorporating themselves and keeping their income within firms.
- When corporate profits are paid out, they are typically taxed at a lower rate than earned income (Figure 1), as tax authorities recognize double taxation.

### Corporate tax raison d'être:

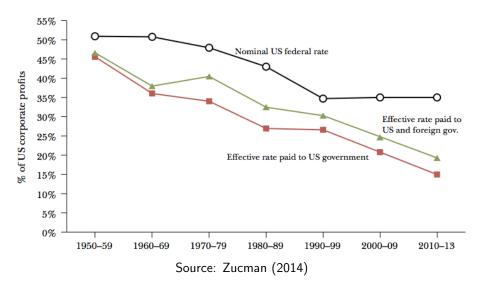
- A prepayment for the personal income tax
- A way to tax rents (such as extractive industries) and business activities that generate negative externalities
  - ► Tax credits can then be used as subsidies for business activities that generate positive externalities.
- A tax on foreign shareholders who benefit from the public goods provided by the country

Because of various tax deductions and loopholes, the effective tax rates paid by U.S. corporations are significantly lower than the statutory rates.

Industry	Number of Companies	Average Tax Rate
Electric utilities (Eastern U.S.)	24	33.8%
Trucking	33	32.7
Railroad	15	27.4
Securities brokerage	30	20.5
Banking	481	17.5
Medical supplies	264	11.2
Internet	239	5.9
Pharmaceutical	337	5.6
Biotechnology	121	4.5

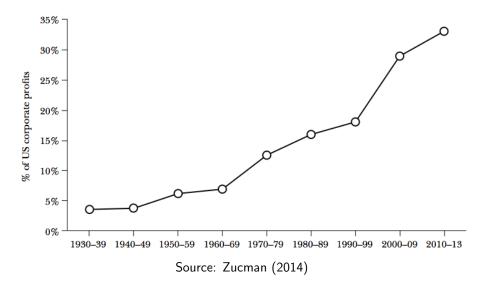
Effective Rates Paid by U.S. Corporations by Industry Source: Ross, Westerfield, and Jaffe (2011)

#### Nominal and Effective Corporate Tax Rates on US Corporate Profits

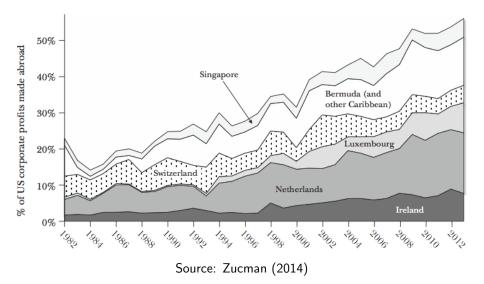


- The practicality and enforceability of the corporate income tax is increasingly challenged by globalization today.
- Corporations can avoid paying corporate taxes by shifting their profits from high-tax jurisdictions to low-tax jurisdictions.
- About two-thirds of the decline in the U.S. effective corporate tax rates over the last 15 years could be attributed to increased profit-shifting to tax havens such as Bermuda, Luxembourg and the Cayman Islands (Zucman, 2014).
  - ► An estimated 20 percent of all U.S. corporate profits prior to TCJA were parked in these tax havens (Zucman, 2014).

#### The Share of Profits Made Abroad in US Corporate Profits



#### The Share of Tax Havens in US Corporate Profits Made Abroad



#### Tax Relief

U.S. multinationals pay tax on larger shares of their foreign income in countries where the effective tax rate for them is lower

IIS firms'

effective tax rate for therms lower.			employees			
Jurisdiction	Effective tax	rate		Share of U.S. firms'	foreign income taxed	there
Luxembourg	1.1%				8.9%	13,700
The Netherlands	2.4	<b>¬</b> U.S. rate <b>23</b> %*			15.8	224,600
Ireland	2.4				11.2	105,400
U.K. Islands†	3.1			3.7		4,300
U.K.	15	i.5		6.0		1,248,200
China		21.2		1.8		1,338,700
France		36.1		0.9		451,900
Germany		38.1		1.1		632,200
Japan			57.1	1.2		320,400

Note: Data for jurisdictions are for 2012. \*Global effective tax rate for U.S. companies in 2010, according to GAO. †Includes Cayman Islands, British Virgin Islands, Turks and Caicos Islands and Montserrat

Sources: Bureau of Economic Analysis Government: Accountability Office (U.S. rate)

The Wall Street Journal

Caribbean/West Indies	Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, d.c British Virgin Islands, Cayman Islands, Dominica, Grenada, Montserrat, a Netherlands Antilles, St. Kitts and Nevis, St. Lucia, St. Vincent and Grenadines, Turks and Caicos, U.S. Virgin Islands a.c
Central America	Belize, Costa Rica, <sup>b,c</sup> Panama
Coast of East Asia	Hong Kong, <sup>b,e</sup> Macau, <sup>a,b,e</sup> Singapore <sup>b</sup>
Europe/Mediterranean	Andorra, <sup>a</sup> Channel Islands (Guernsey and Jersey), <sup>e</sup> Cyprus, <sup>e</sup> Gibralter, Isle of Man, <sup>e</sup> Ireland, <sup>a,b,e</sup> Liechtenstein, Luxembourg, <sup>a,b,e</sup> Malta, <sup>e</sup> Monaco, <sup>a</sup> San Marino, <sup>a,e</sup> Switzerland <sup>a,b</sup>
Indian Ocean	Maldives, a.d Mauritius, a.c.e Seychelles a.e
Middle East	Bahrain, Jordan, <sup>a,b</sup> Lebanon <sup>a,b</sup>
North Atlantic	Bermuda <sup>e</sup>
Pacific, South Pacific	Cook Islands, Marshall Islands, <sup>a</sup> Samoa, Nauru, <sup>c</sup> Niue, <sup>a,c</sup> Tonga, <sup>a,c,d</sup> Vanuatu
West Africa	Liberia

Countries Listed on Various Tax Haven Lists. Source: Gravelle (2015)

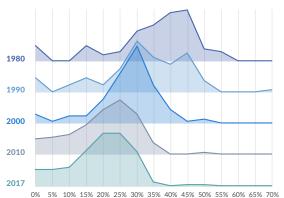
- A popular method of profit-shifting is through the manipulation of transfer pricing, the setting of prices at which companies exchange goods and services internally.
  - Consider a corporation, USCo, that grows coffee beans in Brazil at a cost of \$1/lb and sells them for \$12/lb in the U.S. The company has a subsidiary, BrazilCo, in Brazil.
  - ▶ To avoid paying taxes in either the U.S. or Brazil, USCo could set up another subsidiary, BermudaCo, in Bermuda and have BrazilCo sell beans to BermudaCo for \$1/lb, who would in turn sell them to USCo for \$12/lb.
  - ▶ Both USCo and BrazilCo would record zero profits, while BermudaCo earns \$11/lb in profits but is subject to zero corporate income tax.

- In practice, to prevent profit-shifting, transfer pricing is required to
  obey the arm's length principle: prices of goods and services traded
  by related companies must be based on market prices.
- Intangibles, such as patents and licenses, however, are hard to value as relevant market prices may not exist.
  - USCo could transfer its patent on coffee growing technology to BermudaCo and have BrazilCo pay royalties to BermudaCo for its usage.

- Profit-shifting could also be achieved via debt reallocation, through which a corporation would hold the majority of its debt in high-tax jurisdictions to lower its taxable income in those jurisdictions through deductible interest expenses.
- Another popular method of profit-shifting is through intragroup loans, whereby subsidiaries in low-tax jurisdictions grant loans to subsidiaries in high-tax jurisdictions, a practice known as earnings stripping.
- The existence of thousands of bilateral tax treaties between countries
  has also created a web of inconsistent rules that corporations can
  exploit by choosing the location of their affiliates, a practice known as
  treaty shopping.

## The Race to the Bottom: The Decline of Worldwide Corporate Tax Rates

The Worldwide Distribution of Statutory Corporate Income Tax Rates, 1980-2017



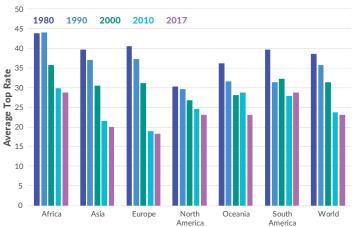
#### Top Marginal Corporate Tax Rate

Source: Tax Foundation. Data compiled from numerous sources including: PwC, KPMG, Deloitte, and the U.S. Department of Agriculture.

Source: Jahnsen and Pomerleau (2017)

# The Race to the Bottom: The Decline of Worldwide Corporate Tax Rates

#### Average Top Corporate Income Tax Rate by Region and Decade



Source: Tax Foundation. Data compiled from numerous sources including: PwC, KPMG, Deloitte, and the U.S. Department of Agriculture.

Source: Jahnsen and Pomerleau (2017)

### Reference

- Gravelle, J. G. 2015. "Tax Havens: International Tax Avoidance and Evasion," Congressional Research Service report, R40623.
- Jahnsen, K. and K. Pomerleau. 2017. "Corporate Income Tax Rates around the World, 2017," Tax Foundation, Fiscal Fact No. 559.
- KPMG. 2018. "Tax Reform KPMG Report on New Tax Law," KPMG LLP.
- Ross, S., R. Westerfield, and J. Jaffe. 2011. *Corporate Finance* (10<sup>th</sup> ed.). McGraw-Hill Education.
- Sherlock, M. F. and D. J. Marples. 2018. "Overview of the Federal Tax System in 2018," Congressional Research Service report, R45145.
- Zucman, G. 2014. "Taxing across Borders: Tracking Personal Wealth and Corporate Profits," *Journal of Economic Perspectives*, 28(4).