

Table 1. 2018 OECD Overall Effective Tax Rates (in Percent)

	Combined Statutory Corporate Tax Rate	PDV of Depreciation		Overall Effective Tax Rates (Corporate Level)	
		Machinery	Industrial Buildings	EMTRs	EATRs
Australia	30.0	81.5	46.2	18.9	26.6
Austria	25.0	76.7	32.9	16.9	22.6
Belgium	29.6	81.5	52.6	20.8	26.8
Canada	26.8	84.7	56.5	25.2	26.3
Chile	25.0	60.3	32.9	31.4	27.3
Czech Republic	19.0	75.4	52.3	13.1	17.3
Denmark	22.0	77.9	46.2	19.3	21.2
Estonia	20.0	0.0	0.0	3.4	15.7
Finland	20.0	77.9	49.6	19.3	19.8
France	34.4	82.8	52.6	29.8	32.8
Germany	29.8	74.4	38.0	22.9	27.6
Greece	29.0	69.9	46.2	22.8	27.0
Hungary	11.1	73.2	22.1	12.4	11.5
Iceland	20.0	80.9	57.6	19.2	19.8
Ireland	12.5	74.4	46.2	13.0	12.7
Israel	23.0	81.8	52.6	20.6	22.2
Italy	27.8	71.9	44.7	18.4	24.7
Japan	29.7	75.7	34.3	37.8	33.0
Korea	27.5	86.4	52.6	11.4	23.0
Latvia	20.0	0.0	0.0	10.6	17.4
Lithuania	15.0	84.9	77.9	12.2	14.2
Luxembourg	26.0	82.0	46.2	16.3	23.1
Mexico	30.0	69.9	52.6	24.3	28.1
Netherlands	25.0	76.7	32.9	17.1	22.6
New Zealand	28.0	69.3	0.0	27.6	27.8
Norway	23.0	73.8	36.0	18.3	21.6
Poland	19.0	69.9	32.9	16.2	18.2
Portugal	31.5	83.4	52.6	19.6	27.8
Slovak Republic	21.0	82.1	52.6	13.7	18.9
Slovenia	19.0	81.8	38.0	12.1	17.0
Spain	25.0	73.5	38.0	20.0	23.4
Sweden ^a	21.5	80.9	46.2	14.8	18.9
Switzerland	21.1	80.9	53.0	11.3	18.4
Turkey	22.0	81.5	46.2	-8.3	15.0
United Kingdom	19.0	71.7	0.0	27.9	22.1
United States	25.8	93.6	33.5	27.2	26.3
OECD Average	26.4	82.3	37.8	23.9	25.8
OECD Average Excl. U.S.	26.7	76.4	40.0	22.1	25.5
G-7 Average	27.1	84.9	34.8	27.9	27.5
G-7 Average Excl. U.S.	28.4	76.2	36.0	28.5	28.6

Source: U.S. Department of the Treasury, Office of Tax Analysis

Notes: PDV = present discounted value; EMTRs = effective marginal tax rates; EATRs = effective average tax rates. The EMTRs and EATRs shown **include** real estate taxes and net wealth taxes on corporations.

a. The corporate income tax rate for Sweden takes account of the profit periodization reserve (tax allocation reserve), which allows companies to allocate to a reserve up to 25percent of net profits.

Table 2. 2018 OECD Effective Marginal Tax Rates (in Percent) at the Corporate Level

	Machinery				Industrial Buildings				Inventories			
	Retained Earnings	New Equity	Debt	Overall Average	Retained Earnings	New Equity	Debt	Overall Average	Retained Earnings	New Equity	Debt	Overall Average
Australia	26.3	26.3	-31.6	12.9	27.2	27.2	-28.7	14.1	37.4	37.4	0.0	27.9
Austria	25.9	25.9	-13.0	15.7	29.3	29.3	-5.3	20.1	25.0	25.0	-15.0	14.6
Belgium	22.3	22.3	-30.8	9.5	40.9	40.9	13.9	33.6	26.4	26.4	-19.7	14.9
Canada	20.2	20.2	-34.6	6.9	44.0	44.0	21.0	37.6	33.8	33.8	0.0	24.9
Chile	41.2	41.2	19.0	34.9	37.2	37.2	11.1	30.0	36.3	36.3	9.4	28.9
Czech Republic	20.6	20.6	-7.2	12.7	17.3	17.3	-13.4	8.6	24.6	24.6	0.0	17.5
Denmark	21.9	21.9	-12.6	12.5	31.3	31.3	5.7	24.1	28.2	28.2	0.0	20.3
Estonia	0.0	25.8	0.0	3.4	0.0	25.8	0.0	3.4	0.0	25.8	0.0	3.4
Finland	19.9	19.9	-11.0	11.3	32.9	32.9	12.1	26.8	25.8	25.8	0.0	18.4
France	28.9	28.9	-16.5	17.7	41.6	41.6	13.6	34.1	42.2	42.2	15.5	35.0
Germany	32.9	32.9	-3.3	23.5	34.4	34.4	0.1	25.5	29.8	29.8	-10.8	19.5
Greece	35.6	35.6	-1.6	26.1	34.4	34.4	-4.9	24.5	29.0	29.0	-19.1	17.3
Hungary	13.1	13.1	0.9	9.2	20.0	20.0	9.7	16.7	14.8	14.8	3.2	11.1
Iceland	17.7	17.7	-15.3	8.5	34.1	34.1	14.2	28.3	25.8	25.8	0.0	18.4
Ireland	14.2	14.2	-3.5	8.7	22.8	22.8	8.7	18.4	16.6	16.6	0.0	11.4
Israel	19.7	19.7	-20.6	9.0	35.6	35.6	11.7	28.9	29.4	29.4	0.0	21.3
Italy	28.0	28.0	2.4	20.7	27.7	27.7	1.6	20.3	22.3	22.3	-8.4	13.8
Japan	43.1	43.1	14.0	35.5	44.7	44.7	17.4	37.4	46.9	46.9	22.4	40.3
Korea	18.8	18.8	-42.0	4.5	24.7	24.7	-25.1	12.5	27.5	27.5	-17.5	16.3
Latvia	0.0	25.8	0.0	3.4	20.1	37.7	20.1	22.3	0.0	25.8	0.0	3.4
Lithuania	10.7	10.7	-14.4	3.3	27.4	27.4	11.5	22.5	15.0	15.0	-7.4	8.3
Luxembourg	22.1	22.1	-25.8	10.1	31.7	31.7	-2.9	22.6	26.0	26.0	-16.0	15.3
Mexico	36.7	36.7	-1.7	27.1	29.3	29.3	-22.4	17.1	37.4	37.4	0.0	27.9
Netherlands	25.9	25.9	-13.0	15.7	29.7	29.7	-4.4	20.7	25.0	25.0	-15.0	14.6
New Zealand	35.0	35.0	-0.4	25.8	38.7	38.7	8.1	30.6	35.1	35.1	0.0	26.0
Norway	26.0	26.0	-6.8	17.1	25.5	25.5	-8.0	16.4	29.4	29.4	0.0	21.3
Poland	24.1	24.1	-0.9	16.9	27.2	27.2	4.3	20.5	19.0	19.0	-10.1	10.7
Portugal	25.5	25.5	-42.3	10.6	29.6	29.6	-28.4	16.4	39.0	39.0	0.0	29.4
Slovak Republic	17.6	17.6	-18.5	7.8	22.0	22.0	-9.7	13.2	27.0	27.0	0.0	19.4
Slovenia	16.1	16.1	-15.5	7.2	19.1	19.1	-10.0	10.8	24.6	24.6	0.0	17.5

Table 2. 2018 OECD Effective Marginal Tax Rates (in Percent) at the Corporate Level, Cont'd.

	Machinery				Industrial Buildings				Inventories			
	Retained Earnings	New Equity	Debt	Overall Average	Retained Earnings	New Equity	Debt	Overall Average	Retained Earnings	New Equity	Debt	Overall Average
Spain	28.4	28.4	-7.2	19.0	27.4	27.4	-9.6	17.7	31.7	31.7	0.0	23.2
Sweden	19.1	19.1	-17.0	9.3	24.1	24.1	-7.0	15.5	26.8	26.8	-1.1	19.0
Switzerland	21.1	21.1	-16.6	11.0	19.4	19.4	-20.3	8.8	23.3	23.3	-11.8	13.9
Turkey	-16.4	-16.4	-18.8	-17.2	-9.6	-9.6	-11.7	-10.3	1.7	1.7	0.0	1.1
United Kingdom	23.0	23.0	-2.9	15.6	46.9	46.9	35.5	43.4	24.6	24.6	0.0	17.5
United States	22.6	22.6	-7.6	14.2	45.8	45.8	28.4	40.7	29.8	29.8	-1.8	21.2
OECD Average	25.2	25.3	-8.1	16.4	36.9	36.9	11.3	30.0	30.4	30.4	-0.3	22.2
OECD Average Excl. U.S	26.6	26.7	-8.4	17.6	32.2	32.2	2.4	24.4	30.7	30.8	0.4	22.7
G-7 Average	27.3	27.3	-5.0	18.6	43.0	43.0	21.3	36.9	32.5	32.5	1.7	24.2
G-7 Average Excl. U.S.	32.0	32.0	-2.4	23.1	40.2	40.2	14.2	33.2	35.1	35.1	5.2	27.1

Source: U.S. Department of the Treasury, Office of Tax Analysis

Notes: EMTRs = effective marginal tax rates; EATRs = effective average tax rates. The EMTRs and EATRs shown **include** real estate taxes and net wealth taxes on corporations.

Table 3. 2018 OECD Effective Average Tax Rates (in Percent) at the Corporate Level

	Machinery				Industrial Buildings				Inventories			
	Retained Earnings	New Equity	Debt	Overall Average	Retained Earnings	New Equity	Debt	Overall Average	Retained Earnings	New Equity	Debt	Overall Average
Australia	28.74	28.74	18.29	25.08	29.04	29.04	18.60	25.38	32.94	32.94	22.50	29.29
Austria	25.30	25.30	16.60	22.25	26.52	26.52	17.81	23.47	25.00	25.00	16.30	21.95
Belgium	27.25	27.25	18.04	24.03	34.38	34.38	25.03	31.11	28.50	28.50	19.29	25.27
Canada	24.7	24.7	15.4	21.5	34.5	34.5	25.0	31.1	29.4	29.4	20.1	26.2
Chile	31.9	31.9	23.1	28.8	29.9	29.9	21.1	26.8	29.4	29.4	20.7	26.4
Czech Republic	19.5	19.5	12.9	17.2	18.5	18.5	11.9	16.2	20.9	20.9	14.3	18.5
Denmark	22.0	22.0	14.3	19.3	25.4	25.4	17.7	22.7	24.2	24.2	16.5	21.5
Estonia	15.0	22.0	15.0	15.7	15.0	22.0	15.0	15.7	15.0	22.0	15.0	15.7
Finland	20.0	20.0	13.0	17.5	24.8	24.8	17.8	22.3	22.0	22.0	15.0	19.5
France	32.5	32.5	23.5	29.3	37.5	37.5	28.4	34.3	37.8	37.8	28.8	34.7
Germany	31.0	31.0	21.8	27.8	31.6	31.6	22.4	28.4	29.8	29.8	20.7	26.6
Greece	31.6	31.6	21.5	28.0	31.1	31.1	20.9	27.5	29.0	29.0	18.9	25.5
Hungary	11.7	11.7	8.5	10.6	13.9	13.9	10.7	12.8	12.2	12.2	9.0	11.1
Iceland	19.3	19.3	12.3	16.9	25.4	25.4	18.3	22.9	22.0	22.0	15.0	19.5
Ireland	13.0	13.0	8.6	11.5	15.8	15.8	11.5	14.3	13.7	13.7	9.4	12.2
Israel	22.0	22.0	14.0	19.2	27.9	27.9	19.8	25.1	25.3	25.3	17.3	22.5
Italy	27.6	27.6	21.3	25.4	27.5	27.5	21.2	25.3	25.8	25.8	19.5	23.6
Japan	35.6	35.6	25.2	32.0	36.5	36.5	26.0	32.8	37.8	37.8	27.4	34.2
Korea	24.8	24.8	15.3	21.5	26.6	26.6	17.0	23.2	27.5	27.5	17.9	24.2
Latvia	15.0	22.0	15.0	15.7	20.0	27.1	20.0	20.7	15.0	22.0	15.0	15.7
Lithuania	13.8	13.8	8.6	12.0	19.3	19.3	14.0	17.4	15.0	15.0	9.8	13.2
Luxembourg	24.8	24.8	15.7	21.6	28.1	28.1	19.0	24.9	26.0	26.0	17.0	22.8
Mexico	32.7	32.7	22.2	29.0	29.8	29.8	19.3	26.1	32.9	32.9	22.5	29.3
Netherlands	25.3	25.3	16.6	22.3	26.7	26.7	18.0	23.6	25.0	25.0	16.3	22.0
New Zealand	30.7	30.7	20.9	27.3	32.3	32.3	22.6	28.9	30.7	30.7	21.0	27.3
Norway	24.0	24.0	16.0	21.2	23.8	23.8	15.8	21.0	25.3	25.3	17.3	22.5
Poland	20.7	20.7	14.1	18.4	21.8	21.8	15.2	19.5	19.0	19.0	12.4	16.7
Portugal	29.5	29.5	18.5	25.7	30.8	30.8	19.8	27.0	34.6	34.6	23.6	30.8
Slovak Republic	20.0	20.0	12.7	17.4	21.3	21.3	14.0	18.8	23.1	23.1	15.8	20.5
Slovenia	18.1	18.1	11.5	15.8	19.0	19.0	12.4	16.7	20.9	20.9	14.3	18.5

Table 3. 2018 OECD Effective Average Tax Rates (in Percent) at the Corporate Level, Cont'd.

	Machinery				Industrial Buildings				Inventories			
	Retained Earnings	New Equity	Debt	Overall Average	Retained Earnings	New Equity	Debt	Overall Average	Retained Earnings	New Equity	Debt	Overall Average
Spain	26.2	26.2	17.5	23.1	25.8	25.8	17.1	22.8	27.5	27.5	18.8	24.4
Sweden	20.2	20.2	12.9	17.7	21.8	21.8	14.5	19.3	22.3	22.3	15.0	19.8
Switzerland	21.1	21.1	13.1	18.3	20.6	20.6	12.5	17.8	21.9	21.9	13.8	19.0
Turkey	13.8	13.8	13.4	13.6	14.8	14.8	14.5	14.7	16.8	16.8	16.5	16.7
United Kingdom	20.3	20.3	13.7	18.0	32.1	32.1	25.4	29.8	20.9	20.9	14.3	18.5
United States	24.8	24.8	18.1	22.4	35.0	35.0	26.7	32.1	27.2	27.2	19.1	24.4
OECD Average	26.4	26.4	18.6	23.7	31.4	31.4	23.1	28.5	28.1	28.1	19.9	25.2
OECD Average Excl. U.S.	27.2	27.2	18.9	24.3	29.4	29.5	21.1	26.5	28.6	28.6	20.3	25.7
G-7 Average	27.4	27.4	19.6	24.7	34.3	34.3	25.8	31.3	29.3	29.3	20.8	26.4
G-7 Average Excl. U.S.	30.0	30.0	21.2	26.9	33.7	33.7	24.8	30.6	31.4	31.4	22.6	28.3

Source: U.S. Department of the Treasury, Office of Tax Analysis

Notes: EMTRs = effective marginal tax rates; EATRs = effective average tax rates. The EMTRs and EATRs shown **include** real estate taxes and net wealth taxes on corporations.

Table 4. 2018 OECD Overall Effective Tax Rates (in Percent)

	Combined Statutory Corporate Tax Rate	PDV of Depreciation		Overall Effective Tax Rates (Corporate Level)	
		Machinery	Industrial Buildings	EMTRs	EATR _s
Australia	30.0	81.5	46.2	18.9	26.6
Austria	25.0	76.7	32.9	15.7	22.2
Belgium	29.6	81.5	52.6	10.7	24.3
Canada	26.8	84.7	56.5	13.9	23.1
Chile	25.0	60.3	32.9	23.7	24.6
Czech Republic	19.0	75.4	52.3	12.4	17.1
Denmark	22.0	77.9	46.2	14.5	19.8
Estonia	20.0	0.0	0.0	3.4	15.7
Finland	20.0	77.9	49.6	12.7	17.9
France	34.4	82.8	52.6	24.4	31.1
Germany	29.8	74.4	38.0	20.9	27.0
Greece	29.0	69.9	46.2	19.4	26.0
Hungary	11.1	73.2	22.1	10.0	10.8
Iceland	20.0	80.9	57.6	11.0	17.5
Ireland	12.5	74.4	46.2	8.5	11.4
Israel	23.0	81.8	52.6	13.1	20.2
Italy	27.8	71.9	44.7	15.3	23.9
Japan	29.7	75.7	34.3	22.8	27.5
Korea	27.5	86.4	52.6	10.4	22.7
Latvia	20.0	0.0	0.0	3.4	15.7
Lithuania	15.0	84.9	77.9	3.3	12.0
Luxembourg	26.0	82.0	46.2	12.5	22.1
Mexico	30.0	69.9	52.6	22.7	27.6
Netherlands	25.0	76.7	32.9	15.7	22.2
New Zealand	28.0	69.3	0.0	27.6	27.8
Norway	23.0	73.8	36.0	17.6	21.4
Poland	19.0	69.9	32.9	13.4	17.4
Portugal	31.5	83.4	52.6	18.1	27.4
Slovak Republic	21.0	82.1	52.6	11.8	18.4
Slovenia	19.0	81.8	38.0	12.1	17.0
Spain	25.0	73.5	38.0	19.1	23.2
Sweden ^a	21.5	80.9	46.2	12.8	18.4
Switzerland	21.1	80.9	53.0	9.4	17.9
Turkey	22.0	81.5	46.2	-9.9	14.7
United Kingdom	19.0	71.7	0.0	18.1	18.7
United States	25.8	93.6	33.5	11.5	21.8
OECD Average	26.4	82.3	37.8	14.9	23.1
OECD Average Excl. U.S	26.7	76.4	40.0	16.7	23.8
G-7 Average	27.1	84.9	34.8	15.9	23.8
G-7 Average Excl. U.S.	28.4	76.2	36.0	20.2	25.8

Source: U.S. Department of the Treasury, Office of Tax Analysis

See notes to Table 1. The EMTRs and EATR_s shown **exclude** real estate taxes and net wealth taxes on corporations.

Table 5. 2018 Components of Combined Statutory Corporate Tax Rates

	Central Government Corporate Tax Rate	Surcharge	Local Profit Tax Rate	Combined Statutory Corporate Tax Rate
Australia	0.3000	0.0000	0.0000	0.3000
Austria	0.2500	0.0000	0.0000	0.2500
Belgium	0.2900	0.0200	0.0000	0.2958
Canada	0.1500	0.0000	0.1180	0.2680
Chile	0.2500	0.0000	0.0000	0.2500
Czech Republic	0.1900	0.0000	0.0000	0.1900
Denmark	0.2200	0.0000	0.0000	0.2200
Estonia ^a	0.2000	0.0000	0.0000	0.2000
Finland	0.2000	0.0000	0.0000	0.2000
France ^b	0.3333	0.0330	0.0000	0.3443
Germany ^c	0.1500	0.0550	0.1400	0.2983
Greece	0.2900	0.0000	0.0000	0.2900
Hungary ^d	0.0900	0.0000	0.0230	0.1109
Iceland	0.2000	0.0000	0.0000	0.2000
Ireland	0.1250	0.0000	0.0000	0.1250
Israel	0.2300	0.0000	0.0000	0.2300
Italy ^e	0.2400	0.0000	0.0381	0.2781
Japan ^f	0.2320	0.1730	0.0347	0.2974
Korea ^g	0.2500	0.0000	0.0250	0.2750
Latvia ^a	0.2000	0.0000	0.0000	0.2000
Lithuania	0.1500	0.0000	0.0000	0.1500
Luxembourg ^h	0.1800	0.0700	0.0675	0.2601
Mexico	0.3000	0.0000	0.0000	0.3000
Netherlands	0.2500	0.0000	0.0000	0.2500
New Zealand	0.2800	0.0000	0.0000	0.2800
Norway	0.2300	0.0000	0.0000	0.2300
Poland	0.1900	0.0000	0.0000	0.1900
Portugal	0.2100	0.0900	0.0150	0.3150
Slovak Republic	0.2100	0.0000	0.0000	0.2100
Slovenia	0.1900	0.0000	0.0000	0.1900
Spain	0.2500	0.0000	0.0000	0.2500
Sweden ⁱ	0.2200	0.0000	0.0000	0.2200
Switzerland ^j	0.0850	0.0000	0.1445	0.2115
Turkey	0.2200	0.0000	0.0000	0.2200
United Kingdom	0.1900	0.0000	0.0000	0.1900
United States ^k	0.2100	0.0000	0.0612	0.2584

Sources: OECD Tax Database, International Bureau of Fiscal Documentation *Global Corporate Tax Handbook 2018*

- a. Estonia and Latvia do not tax retained profits. Corporate profits are only taxed if they are distributed.
- b. From 2014, 75 percent of net interest expenses are deductible. A safe harbor rule applies under which the first EUR 3 million of net interest are deductible. But if net interest expenses exceed EUR 3 million the restriction applies to the entire amount of the net interest expenses.
- c. Since 2008, the local profit tax (the municipal trade tax) is not deductible for trade tax purposes or for federal corporate income tax purposes. In addition, 25 percent of all interest payments exceeding a threshold of EUR 100,000 are not deductible from the local trade tax base.
- d. Hungary has a local business tax with a maximum rate of 2 percent and an innovation tax with a rate of 0.3 percent. Both local taxes are deductible for corporate income tax purposes. However, the tax base for the local tax is not reduced by interest paid.
- e. The combined statutory corporate tax rate for Italy includes a 3.9 percent regional tax on production activities (IRAP), 10 percent of which is deductible for corporate income tax purposes. Interest expenses are not deductible when calculating the tax base for the IRAP.
- f. Japan's surcharge and local profit tax rate include the prefectural inhabitant tax, the municipal inhabitant tax, and the local enterprise tax.
- g. The maximum local income tax rate for corporations is 2.5 percent. The local income tax is not deductible for corporate income tax purposes.
- h. The municipal business tax in the city of Luxembourg is 6.75 percent, or a basic rate of 3 percent multiplied by a coefficient of 2.25. The municipal business tax is not deductible for corporate income tax purposes.
- i. Sweden imposes a flat 22 percent corporate income tax. However, companies can create a profit periodization reserve by allocating to a reserve up to 25 percent of net profits. The reserve must be dissolved (and added to taxable income) no later than the sixth year after the allocation has been made. Since 2005, notional income from the reserve is taxable. The notional taxable income is calculated by multiplying the total amount of the allocations to the reserve fund by 72 percent of the interest rate on long-term government bonds as of the end of November in the previous tax year. The profit periodization reserve reduces Sweden's combined corporate tax rate to 21.48 percent.
- j. The local profits tax rate is obtained by multiplying a basic rate of 8.0 percent for the canton of Zurich by the sum of a cantonal coefficient (1.00), a municipal coefficient (1.19), and a parish coefficient (0.10) for the city of Zurich.
- k. The Tax Cuts and Jobs Act (TCJA) limits interest deductions to 30 percent of adjusted taxable income for corporate debt. From 2018 through 2021, adjusted taxable income is calculated as earnings before interest, tax, depreciation, and amortization (EBITDA); beginning in 2022, it is computed as earnings before interest and tax (EBIT). Using the nonpublic IRS corporate study tax file, the average C-corporation disallowance share (or the share of interest paid that cannot be deducted) for all industries is calculated to be 9.2 percent between 2018 and 2021 and 15.2 percent between 2022 and 2027.

Table 6. 2018 Real Estate and Net Wealth Tax Rates for Corporations

	Real Estate Tax		Effective ^a Net Wealth Tax		
	Nominal	Effective ^a	Machinery	Buildings	Inventory
Australia	0.0000	0.0000			
Austria	0.0025	0.0019			
Belgium	0.0205	0.0145			
Canada	0.0251	0.0184			
Chile ^b	0.0060	0.0045	0.0038	0.0038	0.0038
Czech Republic	0.0013	0.0011			
Denmark	0.0100	0.0078			
Estonia	0.0000	0.0000			
Finland	0.0136	0.0109			
France ^c	0.0054	0.0035	0.0000	0.0061	0.0000
Germany	0.0047	0.0033			
Greece	0.0058	0.0057			
Hungary	0.0044	0.0039			
Iceland	0.0165	0.0132			
Ireland	0.0081	0.0071			
Israel	0.0154	0.0119			
Italy	0.0049	0.0047			
Japan ^d	0.0170	0.0119	0.0098	0.0000	0.0098
Korea	0.0018	0.0013			
Latvia	0.0150	0.0120			
Lituania	0.0150	0.0128			
Luxembourg	0.0075	0.0055			
Mexico	0.0041	0.0029			
Netherlands	0.0029	0.0022			
New Zealand	0.0000	0.0000			
Norway	0.0016	0.0012			
Poland	0.0056	0.0046			
Portugal	0.0032	0.0022			
Slovak Republic	0.0037	0.0029			
Slovenia	0.0000	0.0000			
Spain	0.0020	0.0015			
Sweden	0.0038	0.0029			
Switzerland ^e	0.0000	0.0000	0.0014	0.0014	0.0014
Turkey	0.0020	0.0016			
United Kingdom	0.0240	0.0194			
United States ^f	0.0223	0.0166	0.0068	0.0000	0.0027

Sources: International Bureau of Fiscal Documentation *Global Corporate Tax Handbook 2018*, PwC Worldwide Tax Summaries, Spengel, et al. (2018), various country-specific sources.

- a. The effective tax rate allows for the deductibility of real estate taxes and other net wealth taxes from corporate income taxes. See the country notes explaining calculation of the real estate tax rates.
- b. The net wealth tax shown for Chile is an annual municipal license fee on capital registered on the balance sheet. The rate varies by municipality and location within the municipality. It ranges from 0.25 percent to 0.5 percent. An average tax rate of 0.375 percent is assumed.
- c. The net wealth tax shown for France, the Cotisation Fonciere des Entreprises (CFE), is assumed to apply only to buildings. The CFE is based on the rental value of assets that are subject to the real estate tax. The CFE tax rate is determined by the municipality. The 2018 CFE tax rate for Paris is 16.52 percent. The rental value of buildings is assumed to amount to 8 percent of acquisition costs. PwC Worldwide Tax Summaries indicates that for industrial buildings the taxable base for CFE is reduced by 30 percent. Hence, the nominal other profit tax rate for France is obtained by taking 70 percent of the product of 16.52 percent and 8 percent.
- d. The municipal fixed asset tax in Japan consists of a standard tax rate of 1.4 percent and a city planning tax of 0.3 percent. The standard tax rate is assumed to apply to machinery and inventories. The city planning tax component of the municipal fixed assets tax is not assumed to apply to machinery and inventories.
- e. In Zurich, the net worth tax has a basic rate of 0.075 percent. This basic rate is multiplied by the sum of a cantonal coefficient (1.00) for Zurich, a municipal coefficient (1.19) for the city of Zurich, and a parish coefficient (0.10).
- f. The net wealth tax shown for the United States is a weighted-average of state and local personal property tax rates. State and local personal property tax rates apply to machinery and inventories.

Country Notes:

Australia: Australia has no real estate tax.

Austria: The real estate tax is levied at a basic federal rate of 0.2 percent. This basic federal rate is multiplied by a municipal coefficient that can reach a maximum of 500 percent. The real estate tax is levied on the assessed value of the property; the assessed value is assumed to equal 25 percent of market value.

Belgium: The nominal real estate tax rate is the sum of an “immovable withholding tax” rate of 1.25 percent (for the Brussels regions) and a municipal surcharge of 3000 multiplied by the withholding tax rate. The real estate tax is levied on the rental value of the property. Spengel, et al. (2018) assume that the rental value is 5.3 percent of the market value.

Canada: The nominal real estate tax rate is a population-weighted average of nonresidential (commercial) property tax rates in 8 major Canadian cities—Calgary, Edmonton, Vancouver, Winnipeg, Ottawa, Toronto, Montreal, and Halifax.

Chile: The general real estate tax rate is 1.2 percent for urban property. The taxable base is the cadastral value. The cadastral value is assumed to equal 50 percent of market value.

Czech Republic: The ground floor area of a building determines the taxable base. For flats and nonresidential spaces, the area in square meters is multiplied by a coefficient of 1.2. Tax rates depend on the use of the building. For business premises, the rate is CZK 10 per square meter. The nominal real estate tax rate is multiplied by a coefficient of 4.5 for buildings located in Prague. Prague may increase the coefficient up to a maximum of 5.

Denmark: The municipal real estate tax on buildings used for business purposes may not exceed 1 percent.

Estonia: Estonia has no real estate tax.

Finland: The nominal real estate tax is the mean of a minimum real estate tax rate of 0.92 percent and a maximum real estate tax rate of 1.8 percent.

France: The real estate tax (Taxe Fonciere sur les Proprietes Baties) is calculated by applying city/department property tax rates to half the notional rental value of a commercial property as defined by a local land registry. The tax rate is determined annually by local authorities. The rental value of industrial buildings is assumed to amount to 8 percent of the acquisition cost. Property tax rates are for Paris, which has lower local property tax rates than do some other French cities. For 2018, the local property tax rate in Paris is a combination of a city (ville) rate of 8.37 percent and a department rate of 5.13 percent. Hence, the nominal real estate tax equals $100 \cdot (0.08 \cdot 0.5 \cdot (0.0513 + 0.0837))$.

Germany: The real property tax (Grundsteuer) is calculated by multiplying a real property tax rate of 0.35 percent and a municipal multiplier (Hebesatz) by the assessed value of a real property. Federal fiscal authorities establish the assessed value, which Spengel, et al. (2018) assume amounts to 25 percent of the acquisition cost, and the basic federal rate. Municipalities determine the multiplier. The nominal real estate tax rate is calculated using a population-weighted average multiplier for German cities with a population over 20,000.

Greece: The nominal real estate tax is the sum of a supplementary unified annual real estate ownership tax and a local real estate tax rate. The supplementary tax is imposed on the total value of the real estate property at a rate of 0.55

percent for legal entities. The local real estate tax rate varies between 0.025 percent and 0.035 percent; a mean of 0.03 percent is assumed.

Hungary: The real estate tax is either a maximum of HUF 1852/m² or a maximum of 3.6 percent of the fair market value of the building.

Iceland: Municipalities levy a property tax based on the assessed value of immovable property. The commercial (C-tax) property tax in Reykjavik is 1.65 percent of assessed value. The assessed value is assumed to equal market value.

Ireland: The local tax on immovable property (the commercial “rates”) is calculated by multiplying a rateable valuation by an annual rate of valuation. The annual rate of valuation is set annually by the local government. For Dublin, the annual rate of valuation (the rate multiplier) is 0.258 for 2018. Spengel, et al. (2018) assume a rateable valuation (the estimate of the annual rental value of the property) for Dublin of 63 percent. They also assume that the annual rental value amounts to 5 percent of the acquisition cost.

Israel: A municipal tax (Arnona) is levied annually on buildings by local authorities in Israel. For 2018, the nominal real estate tax is calculated using an average of three rates for industrial plants set by the municipal government in Jerusalem. The three rates, expressed as NIS (shekels) per square meter, are 135.51, 100.54, and 81.61; the average of the three rates is 105.9.

Italy: In January 2012, the unified municipal tax (IMU) replaced the municipal tax on immovable property (ICI). The basic IMU rate is 0.76 percent. However, local authorities can raise the IMU rate to a maximum of 1.06 percent or lower the IMU rate to a minimum of 0.46 percent. The taxable value for the IMU is the cadastral value, or the standard value attributed to a property in the official register. The cadastral value is assumed to equal 65 percent of the acquisition cost. Twenty percent of the IMU is deductible for income tax purposes.

Japan: The municipal fixed assets tax consists of a standard tax rate of 1.4 percent and a city planning tax of 0.3 percent. The tax base corresponds to the market value.

Korea: Real estate taxes in Korea vary by property type and location. Buildings are taxed at rates between 0.25 percent and 4 percent. Factories are assumed to be taxed at a rate of 0.25 percent. However, if the factory is in a designated metropolitan area and is new or expanded, the property tax rate is 1.25 percent, or 5 times the standard rate, for 5 years. Property tax is levied on 70 percent of the current standard value of land and buildings, which is assumed to correspond to acquisition cost.

Latvia: Real estate tax is levied on immovable property such as land and buildings at a basic rate of 1.5 percent of the cadastral value. Spengel, et al. (2018) assume that the cadastral value equals the acquisition cost.

Lithuania: An annual property tax on immovable property ranges from 0.3 percent to 3 percent of the taxable value. The nominal real estate tax is 1.5 percent assuming that the taxable value is 50 percent of the acquisition cost (Spengel, et al. (2018)).

Luxembourg: The real estate tax is based on the unitary value of real estate, or the estimated value in 1941. The basic tax rate is between 0.7 percent and 1 percent. It is multiplied by a municipal coefficient that equals 750 percent for Luxembourg City. The municipal coefficient for Luxembourg City is applied to a basic rate of 1 percent. Spengel, et al. (2018) assume that the unitary value is 10 percent of the acquisition cost.

Mexico: The real estate tax is levied by the Federal District and all states at rates that range from 0.05 percent to 1.2 percent. An average value is calculated for the Federal District. The taxable base for the property tax is the cadastral value, which is assumed to equal 50 percent of market value.

Netherlands: The real estate tax rate for immovable nonresidential property in Amsterdam is 0.29 percent. The real estate tax is deductible for corporate income tax purposes. The basis for the real estate tax is the property value.

New Zealand: New Zealand has no real estate tax.

Norway: Immovable property is subject to a municipal real estate tax. The taxable base is the assessed value, which is between 20 percent and 50 percent of market value. The real estate tax is levied at fixed rates ranging from 0.2 percent to 0.7 percent. The nominal real estate tax is calculated assuming an average fixed rate of 0.45 percent and an average assessed value of 35 percent.

Poland: The taxable base for the real estate tax is the floor area of the building. For buildings used for business, the maximum tax rate for 2017 is PLN 22.66/m².

Portugal: The tax base for the municipal real estate tax (IMI) is 80 percent to 90 percent of the market value of a property. IMI rates are 0.3 percent to 0.45 percent for urban buildings registered or owned from December 2003. An average market value of 85 percent and an average IMI rate of 0.38 percent are assumed.

Slovak Republic: The immovable property tax is based on the area of the real estate, its location, and its type. In the city of Bratislava, real estate taxes are divided into three bands. The real estate tax for industrial buildings and warehouses is EUR 3/m² for band 1, EUR 4/m² for band 2, and EUR 5 /m² for band 3. The real estate tax for buildings used for other business activities is EUR 5 /m² for band 1, EUR 6 /m² for band 2, and EUR 8.3 EUR/m² for band 3. An average of real estate taxes for industrial buildings and other buildings is used.

Slovenia: Slovenia has no real estate tax.

Spain: For 2018, the real estate tax is levied by municipalities at a general rate of 0.4 percent for urban property. The taxable base is the cadastral value, which in Spengel, et al. (2018) is assumed to equal 50 percent of the acquisition cost.

Sweden: A national real estate tax is levied on all immovable commercial and industrial property. The tax rate is 1 percent for commercial premises and 0.5 percent for industrial property. Spengel (2018), et al. assume that the taxable base equals 75 percent of the acquisition cost.

Switzerland: Zurich has no real estate tax on immovable property.

Turkey: The real estate tax for buildings is 0.2 percent.

United Kingdom: Local municipal taxes are levied on the occupiers of business property by reference to a deemed annual rental value (the rateable value) determined by the Valuation Office Agency of HM Revenue & Customs. Spengel, et al. (2018) assume that the rateable value amounts to 5 percent of the acquisition cost. It is multiplied by the “rate in pound.” The rate in the pound (also called the multiplier) is set by the Communities and Local Government. Between revaluations (every 5 years), the rate in the pound adjusts annually by the rate of inflation. In 2017, it is 49.7 percent.

United States: The Minnesota Center for Fiscal Excellence and the Lincoln Institute of Land Policy annually publish a *50-State Property Tax Comparison Study* that includes average effective commercial property tax rates and industrial property tax rates for all 50 states and the District of Columbia. (The April 2018 report is available at https://www.lincolnst.edu/sites/default/files/pubfiles/50-state-property-tax-comparison-for-2017-full_1.pdf, accessed May 16, 2022.) Real and personal property tax rates and net tax amounts from Table 3a and Table 4a of the April 2018 report are combined with municipal data on statutory property tax rates and the taxable base to obtain average effective property tax rates for commercial buildings, industrial buildings, machinery, and inventories in the largest urban areas in each state plus the District of Columbia.

Spengel, Christoph, Frank Schmidt, Jost Heckemeyer, and Katharina Nicolay, 2018, “Project for the EU Commission, Effective Tax Levels Using the Devereux/Griffith Methodology,” TAXUD/2018/DD/307, Intermediary Report 2018, available at https://ec.europa.eu/taxation_customs/system/files/2019-03/final_report_2018_effective_tax_levels_revised_en.pdf (accessed May 16, 2022).

Table 7. 2018 Tax Treatment of Inventories

	Proportion of Inventories Valued by FIFO
Australia	1.0000
Austria	0.0000
Belgium	0.0000
Canada	1.0000
Chile	1.0000
Czech Republic	1.0000
Denmark	1.0000
Estonia ^a	---
Finland	1.0000
France	1.0000
Germany	0.0000
Greece	0.0000
Hungary	1.0000
Iceland	1.0000
Ireland	1.0000
Israel	1.0000
Italy	0.0000
Japan	1.0000
Korea	0.0000
Latvia ^a	---
Lithuania	0.0000
Luxembourg	0.0000
Mexico	1.0000
Netherlands	0.0000
New Zealand	1.0000
Norway	1.0000
Poland	0.0000
Portugal	1.0000
Slovak Republic	1.0000
Slovenia	1.0000
Spain	1.0000
Sweden	1.0000
Switzerland	0.0000
Turkey	1.0000
United Kingdom	1.0000
United States	0.0000

Sources: International Bureau of Fiscal Documentation *Global Corporate Tax Handbook 2018*, PwC Worldwide Tax Summaries, and Ernst & Young Worldwide Corporate Tax Guide.

Notes: FIFO = first-in-first-out; LIFO = last-in-first-out. A value of 0 indicates that 100 percent of inventories are valued by LIFO accounting methods. A value of 1 indicates that 100 percent of inventories are valued by FIFO accounting methods.

a. Estonia and Latvia tax distributed profits instead of corporate income.

Table 8A. 2018 Tax Depreciation for Machinery

	Kind of Allowance	Acceleration Factor ^c	Allowance Rate (in Percent)	Length of Period (in Years)	Optimal Switching Time (in Years)
Australia	DBSL	2.00	28.57 (DB) 8.68 (SL)	7	4.00
Austria	SL		14.29	7.00	
Belgium	DBSL	2.00	28.57 (DB) 8.68 (SL)	7.00	4.00
Canada ^{a,b}	DB		50.00	ufd	
Chile	SL		6.67	15	
Czech Republic ^d	DB		10.00	10.00	
Denmark	DB		25.00	ufd	
Estonia ^e	---	---	---	---	---
Finland	DB		25.00	ufd	
France	DBSL	2.25	32.14 (DB) 7.07 (SL)	7.00	4.00
Germany	SL		12.50	8.00	
Greece	SL		10.00	10	
Hungary	SL		50.00	2.00	
Iceland	DB		30.00	ufd	
Ireland	SL		12.50	8.00	
Israel	SL		20.00	5.00	
Italy	SL		6.25	1.00	
			12.50	7.00	
			6.25	1.00	
Japan	DBSL	2.00	20.00 (DB) 6.55 (SL)	10.00	5.00
Korea	DB		45.10	ufd	
Latvia ^e	---	---	---	---	---
Lithuania	DB		40.00	ufd	
Luxembourg	DBSL	2.10	30.00 (DB) 8.00 (SL)	7.00	4.00
Mexico	SL		10.00	10.00	
Netherlands	SL		14.29	7.00	
New Zealand	DB		16.00	ufd	
Norway	DB		20.00	ufd	
Poland	SL		10.00	10.00	
Portugal	DB		35.71	ufd	
Slovak Republic ^d	DB		16.67	6.00	
Slovenia	SL		20.00	5.00	

Table 8A. 2018 Tax Depreciation for Machinery, Cont'd.

	Kind of Allowance	Acceleration Factor ^c	Allowance Rate (in Percent)	Length of Period (in Years)	Optimal Switching Time (in Years)
Spain	SL		12.00	8.00	
			4.00	1.00	
Sweden	DB		30.00	ufd	
Switzerland	DB		30.00	ufd	
Turkey	DBSL	2.00	28.57 (DB)	7.00	4.00
			8.68 (SL)		
United Kingdom	DB		18.00	ufd	
United States ^{a,b}	DBSL	2.00	28.57 (DB)	7.00	4.00
			8.92 (SL)		
			4.46 (SL) ^f		

Sources: Spengel, et al. (2018), the Oxford University Centre for Business Taxation (2017), International Bureau of Fiscal Documentation *Global Corporate Tax Handbook 2018*, PwC Worldwide Tax Summaries, and Ernst & Young Worldwide Corporate Tax Guide.

Notes: SL = straight line; DB = declining balance; DBSL = declining balance with a switch to straight line; ufd = until fully depreciated; EMTRs = effective marginal tax rates; EATRs = effective average tax rates.

a. Depreciation is reduced by half in the first year (half-year convention).

b. For 2018, temporary stimulus measures are included for Canada and the United States. In Canada, machinery and equipment purchased after 2015 and before 2026 can be depreciated using 50-percent DB depreciation. In the United States, a first-year, bonus depreciation deduction is allowed for qualifying property (primarily machinery and equipment). For 2018, the bonus depreciation rate is 100 percent. For the United States, the calculation of the EMTRs and EATRs treats immediate expensing/bonus depreciation as elective. We assume that only roughly 70 percent (and not 100 percent) of qualified property placed in service in 2018 is expensed. This 70 percent is based on an average bonus take-up rate calculated using U.S. tax data.

c. For those countries where machinery can be depreciated using the DBSL method, the DB depreciation rate shown is obtained by dividing the acceleration factor by the length of period (in years) shown.

d. The Czech Republic and the Slovak Republic use either the SL method or an accelerated depreciation method. This accelerated method is a DB method that uses the same periods as the SL method. In the Czech Republic, assets are divided into 6 categories based on useful life. Machinery and equipment used in specified industrial processes are in category 3 and have a useful life of 10 years. Buildings other than office buildings, hotels, and shopping malls are in category 5 and have a useful life of 30 years. In the Slovak Republic, assets are also divided into 6 categories based on useful life. Machinery and equipment are in category 2 and have a useful life of 6 years. Certain buildings are in category 5 and have a useful life of 20 years. From 2015, accelerated depreciation is applicable only to assets in categories 2 and 3.

e. Estonia and Latvia tax distributed profits instead of corporate income.

f. Machinery is depreciated at an allowance rate of 8.92 percent in years 5 through 7. The remaining balance is depreciated at an allowance rate of 4.46 percent in a final half year.

Oxford University Centre for Business Taxation, 2017, CBT Tax Database, available at <https://ora.ox.ac.uk/objects/uuid:81f28d9a-fe6e-445b-8d34-a641b573d986> (accessed December 14, 2021).

Table 8B. 2018 Tax Depreciation for Industrial Buildings

	Kind of Allowance	Allowance Rate (in Percent)	Length of Period (in Years)
Australia	SL	4.00	25
Austria	SL	2.50	40.00
Belgium	SL	5.00	20.00
Canada ^a	DB	10.00	ufd
Chile	SL	2.50	40.00
Czech Republic ^b	DB	3.33	30.00
Denmark	SL	4.00	25.00
Estonia ^c	---	---	---
Finland	DB	7.00	ufd
France	SL	5.00	20.00
Germany	SL	3.00	33.33
Greece	SL	4.00	25.00
Hungary	SL	2.00	50.00
Iceland	SL	6.00	16.67
Ireland	SL	4.00	25.00
Israel	SL	5.00	20.00
Italy	SL	2.00	1.00
		4.00	24.00
		2.00	1.00
Japan	SL	2.63	38.00
Korea	SL	5.00	20.00
Latvia ^c	---	---	---
Lithuania	DB	25.00	ufd
Luxembourg	SL	4.00	25.00
Mexico	SL	5.00	20.00
Netherlands	SL	2.50	40.00
New Zealand ^d	---	---	---
Norway	DB	4.00	ufd
Poland	SL	2.50	40.00
Portugal	SL	5.00	20.00
Slovak Republic ^b	SL	5.00	20.00
Slovenia	SL	3.00	33.33
Spain	SL	3.00	33.33
Sweden	SL	4.00	25.00
Switzerland	DB	8.00	ufd
Turkey	SL	4.00	25.00
United Kingdom ^e	SL	2.00	50.00
United States ^f	SL	2.46	1.00
		2.56	38.00
		0.11	1.00

Sources: Spengel, et al. (2018), the Oxford University Centre for Business Taxation (2017), International Bureau of Fiscal Documentation *Global Corporate Tax Handbook 2018*, PwC Worldwide Tax Summaries, and Ernst & Young Worldwide Corporate Tax Guide.

Notes: SL = straight-line; DB = declining-balance; ufd = until fully depreciated.

- a. Depreciation is reduced by half in the first year (half-year convention).
- b. The Czech Republic and the Slovak Republic use either the SL method or an accelerated depreciation method. This accelerated method is a DB method that uses the same periods as the SL method. In the Czech Republic, assets are divided into 6 categories based on useful life. Machinery and equipment used in specified industrial processes are in category 3 and have a useful life of 10 years. Buildings other than office buildings, hotels, and shopping malls are in category 5 and have a useful life of 30 years. In the Slovak Republic, assets are also divided into 6 categories based on useful life. Machinery and equipment are in category 2 and have a useful life of 6 years. Certain buildings are in category 5 and have a useful life of 20 years. From 2015, accelerated depreciation is applicable only to assets in categories 2 and 3.
- c. Estonia and Latvia tax distributed profits instead of corporate income.
- d. From 2012, the allowance rate is 0 percent (3 percent prior to 2012) for buildings with an estimated useful life of 50 years or more. See also Inland Revenue (2018), *General Depreciation Rates*, IR265, July, available at <https://www.ird.govt.nz/income-tax/income-tax-for-businesses-and-organisations/types-of-business-expenses/depreciation> (accessed May 16, 2022).
- e. The SL allowance rate for buildings was reduced at a rate of 1 percentage point per year beginning in 2008 (from 4 percent in 2007). Capital allowances for buildings were phased out after April 2011 so that no capital allowances were allowed. However, beginning in October 2018, a new Structures and Buildings Allowance applies to new nonresidential buildings and structures (excluding land). Under the Structures and Buildings Allowance, industrial buildings are depreciated on a SL basis at an annual rate of 2 percent. The new allowance applies to contracts for construction works entered into on or after October 29, 2018. From April 2011 through October 2018, no capital allowances were allowed for buildings.
- f. The mid-month convention is used for nonresidential real property and residential real property. Under the mid-month convention, all property placed in service during a month is treated as placed in service at the mid-point of the month. This means that one-half of depreciation is allowed for the month that the property is placed in service. Assuming that the property is placed in service in the first month of the year, the SL depreciation rate is 2.461 percent in the first year, 2.564 percent in years 2 through 39, and 0.107 percent in year 40.

Table 9. Economic and Other Parameters Assumed for OECD Countries

Real Rate of Return	5.00
Inflation Rate	2.00
Economic Depreciation Rate	
Machinery	17.50
Industrial Buildings	3.10
Acquired Patents	15.35
Inventories	0.00
Proportion of New Investment Financed with: ^b	
Equity (and Retained Earnings)	65.00
Debt	35.00

Sources: Devereux, et al. (2008) and Spengel, et al. (2018).

a. The same economic parameters are assumed for all OECD countries so that any differences in effective tax rates reflect differences in tax regimes.

b. The overall effective marginal tax rates in Table 1 and Table 4 are calculated using the difference between an average cost of capital across type of asset (machinery, industrial buildings, inventories) and type of finance (retained earnings, debt, equity) and an after-tax real rate of return. Devereux, et al. (2008) use a combined weight of 65 percent for equity and retained earnings and a weight of 35 percent for debt.

Devereux, Michael P., Christina Elschner, Dieter Endres, Jost H. Heckemeyer, Michael Overesch, Ulrich Schreiber, and Christoph Spengel, 2008, "Project for the EU Commission," TAXUD/2005/DE/3 10, Final Report, available at <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.353.2752&rep=rep1&type=pdf> (accessed May 16, 2022).

Figure 1. 2018 Effective Statutory Profit Tax Rate (in Percent)

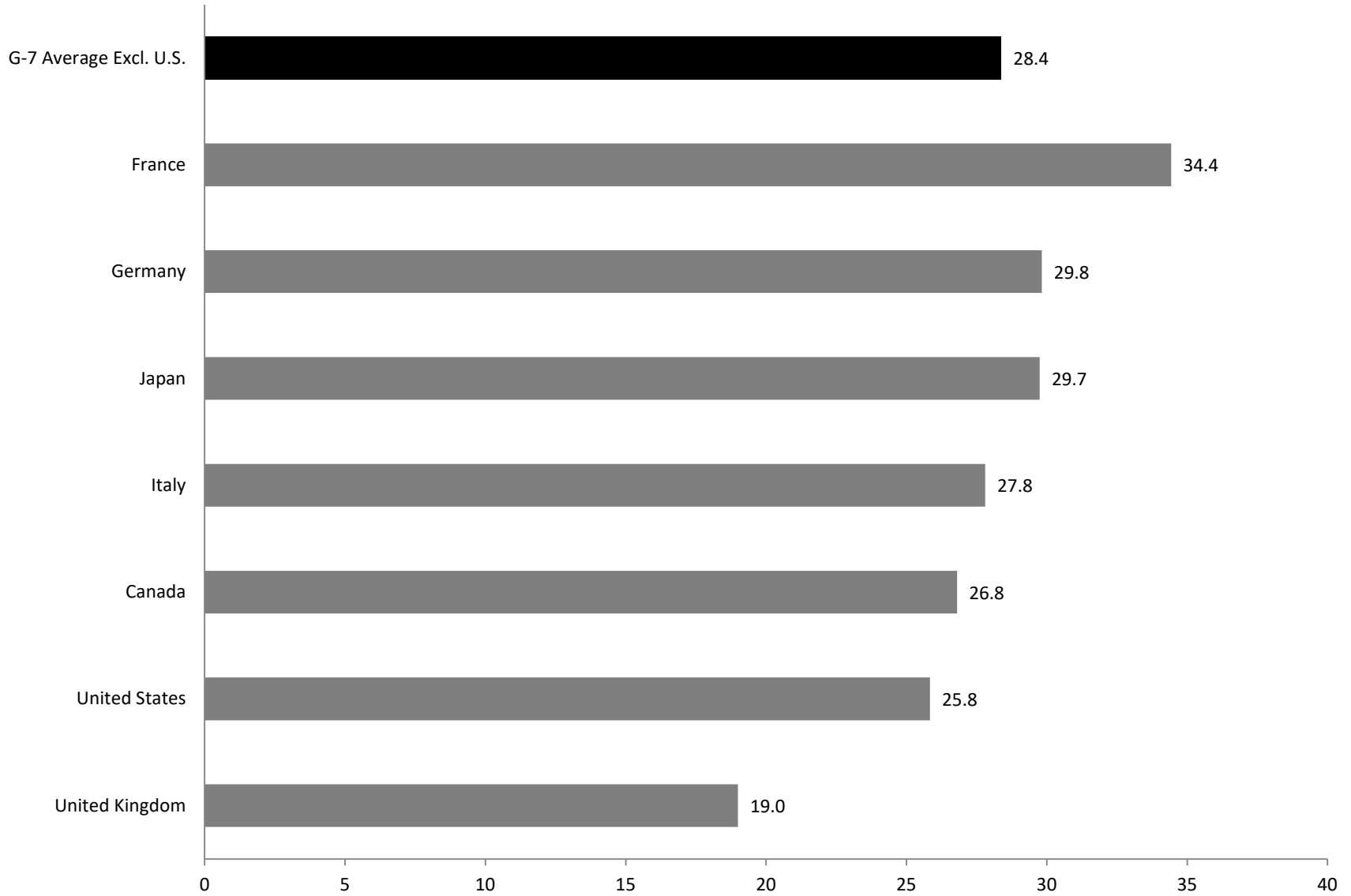


Figure 2. 2018 Overall G-7 Effective Marginal Tax Rates (in Percent)

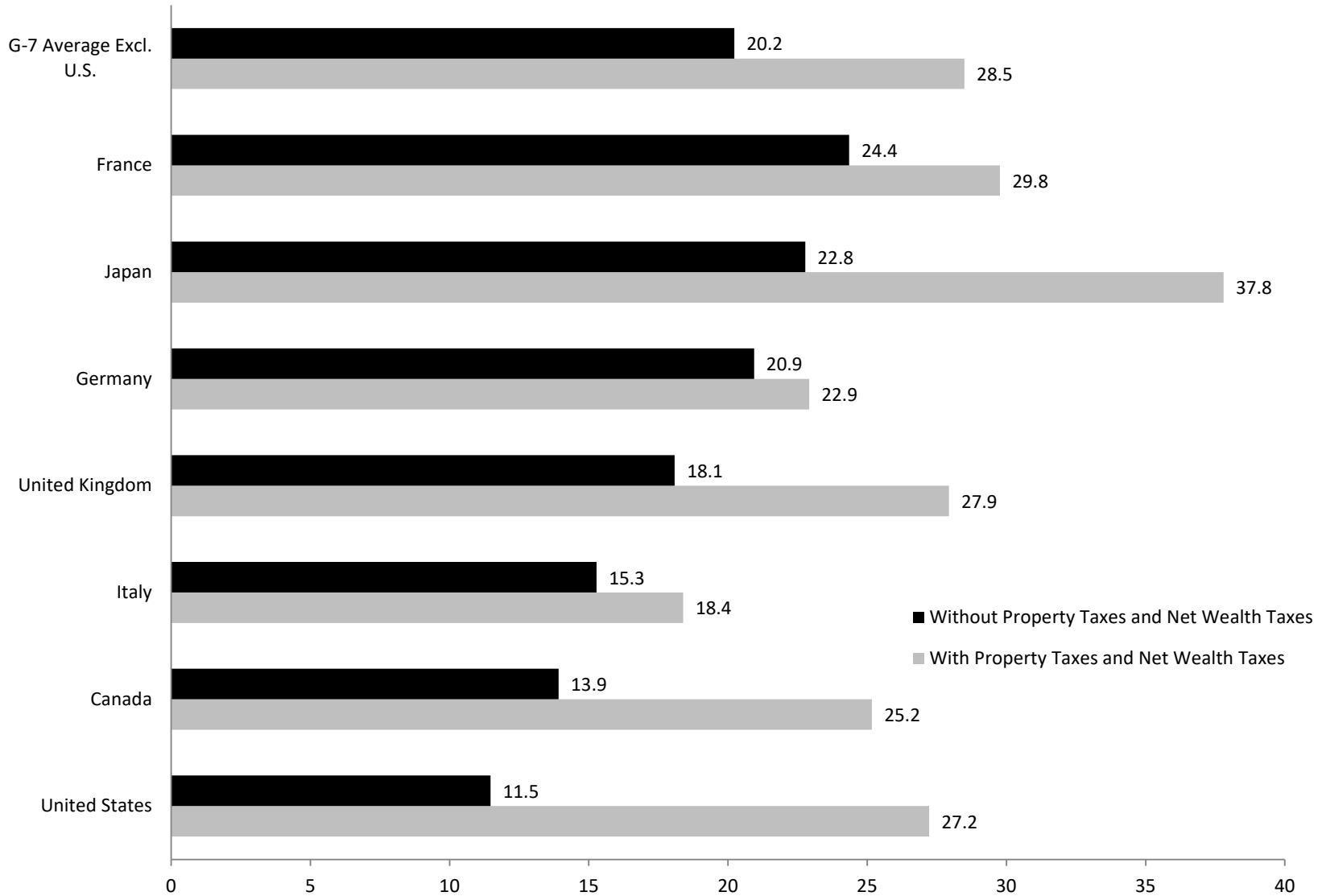


Figure 3. 2018 Overall G-7 Effective Average Tax Rates (in Percent)

