1. Introduction

This introduction briefly describes the data on corporate income tax systems that has been collected by the Leibniz Center for European economic research. It provides detailed information on all the variables available, the country and year coverage. Since the development of the database is an ongoing work, more information will become available over time. This note refers to the state of the database as of February 2024.

The database includes all parameters used in the estimation of the effective tax rates. These parameters comprise variables such as corporate tax rates, aspects of the legal definition of the corporate tax base (depreciation rates and types), and inventory valuation methods. Further, it also includes measures of the cost of capital, effective average tax rates (EATRs), and effective marginal tax rates (EMTRs) in a domestic and cross-border scenario. The database covers all EU member states over the period 1998 – 2023 and some further important non-EU countries over the period (2005-2023) as specified below.

The data currently in the database comes from various sources:

- Data for 2009 - 2023 comes mainly from the online IBFD Tax Research Platform
- Early data has been updated with the "European tax handbook" (years 1998 - 2010)
- Annual questionnaires in strong cooperation with PWC – country experts

We update the database each year to make it consistent with the most recently available information. We aim to make sure that all the information included in the database applies on 1 July of the given year.

This brief description is organized as follows: Section 2 lists all the countries covered in the sample, section 3 explains in more detail the features of each of the variables and what they comprise of.

2. Country and year coverage

The database consists of all European Member States as well as eight non-EU countries. Thus, data for the following countries is available: Austria, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Malta, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States.

The years covered span the period 2005-2023 for all countries. Additional data for all European Member States as well as the United Kingdom is provided for years 1998-2004.

3. Variables available

3.1 Parameter variables

3.1.1 Corporate Profit Taxes (Parameters_A1_ProfitTaxes_year)

The corporate tax rates file contains information on the statutory corporate tax rates in each country. We provide information on the top corporate tax rate at the federal level, any surcharge levied, any local corporate tax rate and finally the total corporate tax rate, which is the sum of all the tax rates that exist in a given country in a given year taking into account the deductions available.

For further information on the country-specific calculation of the effective distributed corporate income tax rate, please refer to Section A, Table A-1 of the current annual report.

Country	String	Country name
Year	4 digit number	Calendar year (NOT fiscal year)
EffectiveCITDistributed	Numeric, not in %	Sum of federal tax rate, local tax rate taking into account surcharges and deductibility of local taxes
NominalCIT	Numeric, not in %	Top statutory corporate tax rate
SumLocalNominal	Numeric, not in %	Top statutory corporate tax rate at lower government levels
SumSurcharges	Numeric, not in %	Surcharges on corporate tax

3.1.2 Adjustments (Parameters_A2_Adjustments_year)

In this file, we contain information if countries apply alternative corporate income tax rates on certain kind of assets/income sources. Thus, we adjust the corporate income tax rate by the difference to the alternative tax rate.

For further information on country-specific alternative corporate tax rates, please refer to Section A, Table A-2 of the current annual report.

Country	String	Country name
Year	4 digit number	Calendar year (NOT fiscal year)
FinAssets	Numeric, not in %	Adjustment of the statutory corporate tax rate to derive the alternative nominal corporate tax rate on interest income
ForIncome	Numeric, not in %	Adjustment of the statutory corporate tax rate to derive the alternative nominal corporate tax rate on foreign income

3.1.3 Non Income Taxes (Parameters_A3_NonIncomeTaxes_year)

Besides profit taxation, the Mannheim Tax Index accounts for existing non-income taxes, i.e. real estate and net wealth taxes for corporations. The nominal tax rate already accounts for possible valuation effects. Whereas, the effective rate accounts for the deductibility of these taxes from corporate income tax.

For further information on the country-specific non income taxes, please refer to Section A, Table A-3 of the current annual report.

Country	String	Country name
Year	4 digit number	Calendar year (NOT fiscal year)
EffectiveNWT	Numeric, not in %	Net wealth tax taking into account deductibility from corporate income tax
NominalNWT	Numeric, not in %	Statutory net wealth tax
EffectiveRETTotal	Numeric, not in %	Real estate tax taking into account deductibility from corporate income tax
NominalRET	Numeric, not in %	Statutory real estate tax rate

3.1.4 Non Profit Taxes (Parameters_A4_NonProfitTaxes_year)

This file contains information on non-profit taxes on assets other than real estate tax and net wealth tax.

For further information, please refer to Section A, Table A-4 of the current annual report.

Country	String	Country name
Year	4 digit number	Calendar year (NOT fiscal year)
Effective1	Numeric, not in %	Effective non-profit tax on machinery
Nominal1	Numeric, not in %	Nominal non-profit tax on machinery
Effective2	Numeric, not in %	Effective non-profit tax on industrial buildings
Nominal2	Numeric, not in %	Nominal non-profit tax on industrial buildings

3.1.5 Inventories (Parameters_A5_Inventories_year)

Our data also includes information on the method of inventory valuation, which can be either last in first out (LIFO), average or first in first out (FIFO). Where more than one valuation method is applicable, we only document the most tax-efficient possibility (we prefer LIFO over average over FIFO).

Country	String	Country name
Year	4 digit number	Calendar year (NOT fiscal year)
InvValuation	String	Valuation method: First-in-First-out (fifo), Last-in-First-out (lifo), Weighted average (average)

3.1.6 Allowances (Parameters_A6-A8_allowances_year)

We consider three depreciable assets: industrial buildings, plant and machinery and intangibles (patents). For each of these assets, we collect information about depreciation method (either straight line, declining balance, declining balance with a switch to straight line or any variation), depreciation rates and the number of years over which the asset is permitted to depreciate. In case of declining balance, the depreciation period is indicated with "until fully depreciated".

Sometimes, for certain assets, data was not available for depreciation rates and methods or else it was stated that depreciation must be computed in accordance with the statutory useful lives of the assets. When this occurred we make assumptions as to what are the useful lives of all three assets used in the database. They are as follows:

- for industrial buildings: 25 years useful life
- for plants and machinery: 7 years useful life
- for patents: 10 years useful life

The depreciation rates were computed accordingly.

For further information on the county and asset-specific depreciation methods, please refer to Section A, Table A6 to A8 of the current annual Report.

Country	String	Country name
Year	4 digit number	Calendar year (NOT fiscal year)
MethodIndBuild		Depreciation method: Declining-balance (DB), Straight-line (SL), flexible schedule (Flex), no allowance, Switch from DB to SL (Switch)
PeriodIndBuild	Mostly Numeric	Length of depreciation period
RateIndBuild	Numeric, not in %	Depreciation rate
MethodIntang		Depreciation method: Declining-balance (DB), Straight-line (SL), flexible schedule (Flex), no allowance, Switch from DB to SL (Switch)
PeriodIntang	Numeric	Length of depreciation period
RateIntang	Numeric, not in %	Depreciation rate
MethodMachin		Depreciation method: Declining-balance (DB), Straight-line (SL), flexible schedule (Flex), no allowance, Switch from DB to SL (Switch)
PeriodMachin	Numeric	Length of depreciation period
RateMachin	Numeric, not in %	Depreciation rate
Idx	Numeric	Year of tax allowance in case of a flexible depreciation schedule

3.1.7   Interest Deductibility (Parameters_A12_Deductions_year)

For more information on deviating interest deductibility, please refer to Section A, Table A-12 of the current annual report.

Country	String	Country name
Year	4 digit number	Calendar year (NOT fiscal year)
Beta	Numeric, not in %	fraction of interest deductibility on corporate level (relative to one unit of interest)
Idx	Dummy	Indicates deviating interest deductibility for SMEs (2), partnerships (3) and the calculation of the effective marginal tax rate (1).

3.1.8   Group Taxation (Parameters_A9_GroupTaxation_year)

The Group Taxation worksheet contains information on the treatment of foreign dividends, the methods to avoid double taxation as well as the treatment of costs related to tax-exempt dividends.

For more information, please refer to Section A, Table A-9 of the current annual report.

Country	String	Country name
Year	4 digit number	Calendar year (NOT fiscal year)
DeductCostForDiv	Dummy	Deductibility of costs related to tax-exempt foreign dividends
DoubleTaxElemSys	String	Elimination of double taxation of dividends based on national tax law
FracTaxExempt	Numeric, in %	Amount of tax- exempt dividends

3.1.9 Personal Income Taxes (Parameters_A10_PIT_year)

The PIT file contains information on the taxation of distributed dividends at the level of the shareholder (including surcharges). Further, we assume that the shareholder sells a pre-defined percentage of his shares annually. The profits of this sale may be subject to capital gains taxation. In addition, we collect information on the taxation of the alternative investment (i.e. the interest of bank deposits) at the level of the shareholder. Besides, these three different kinds of incomes, we further distinguish between a zero-rate shareholder, a non-qualified top-rate and a qualified top-rate shareholder.

For more information on the taxation at the shareholder level, please refer to Section A Table A-10 of the current annual report.

Country	String	Country name
Year	4 digit number	Calendar year (NOT fiscal year)
CapitalGains1	Numeric, not in %	Capital gains tax rate applicable to a zero-rate shareholder
CapitalGains2	Numeric, not in %	Capital gains tax rate applicable to a non-qualified top-rate shareholder
CapitalGains3	Numeric, not in %	Capital gains tax rate applicable to a qualified top-rate shareholder
Dividends1	Numeric, not in %	Dividend tax rate applicable to a zero-rate shareholder
Dividends2	Numeric, not in %	Dividend tax rate applicable to a non-qualified top-rate shareholder
Dividends3	Numeric, not in %	Dividend tax rate applicable to a qualified top-rate shareholder
Interest1	Numeric, not in %	Interest tax rate applicable to a zero-rate shareholder
Interest2	Numeric, not in %	Interest tax rate applicable to a non-qualified top-rate shareholder
Interest3	Numeric, not in %	Interest tax rate applicable to a qualified top-rate shareholder

3.1.10 Net Wealth Taxation (Parameters_A11_NetWealth_year)

This file contains information on the top marginal tax rates of individual net wealth tax on shareholdings and lending. In the case of property taxes on shareholdings, we again distinguish between a top-rate qualified and non-qualified shareholder.

For further information, please refer to Section A Table A-11 of the current annual report.

Country	String	Country name
Year	4 digit number	Calendar year (NOT fiscal year)
Lending2	Numeric, not in %	Property tax rate applicable to interest income
Shareholding2	Numeric, not in %	Property tax rate applicable for a non-qualified top-rate shareholder
Shareholding3	Numeric, not in %	Property tax rate applicable for a qualified top-rate shareholder

3.1.11 Withholding Tax Rates (Parameters_A13_WHTInterest_year; Parameters_A14_WHTDividends_year)

The multidimensional nature of the information on withholding taxes is more visible in a conventional table format instead of a database format. So far, the information on withholding tax rates remains in a similar format as presented in the final report "Effective tax levels using the Devereux/Griffith methodology".

3.2   Effective Tax Burden Measures

The results for the effective tax burdens are available both in database format and, according to the annual report, in Excel format. The database is available as a tab-separated csv file.

3.2.1 Effective tax burden of a domestic investment (Annex_C_year)

For a description of the methodology and the assumptions used in the calculation of the effective tax burden measures, please refer to Section B in the current annual report.

Country	String	Country name
Year	4 digit number	Calendar year (NOT fiscal year)
Investor	String	Indicates if the effective tax measure refers to the corporate or the shareholder level
	Corporate	Corporate level
	Share_zero	Zero-rate shareholder
	Share_tnq	Top-rate non-qualified shareholder
	Share_tq	Top-rate qualified shareholder
Asset	String	Indication of which asset the effective tax burden relates to
	buildings	Industrial buildings
	intangibles	Acquired patent
	machinery	Plant and machinery
	inventory	Inventory
	fin-assets	Financial assets
	Overall	Investment mix (equally weighted)
Funding	String	Indication of how the investment is financed
	RE	Retained earnings
	NE	New equity
	DE	Debt
	Overall	Mix of financing sources (RE 55%, NE 10%, DE 35%)
Parameter	Numeric, in %	Measure of effective tax burden
	CoC	Cost of Capital
	EATR	Effective average tax rate
	EMTR	Effective marginal tax rate

The file "Database_2023" contains the results for all effective tax burden measures for a mixed, domestic investment weighted by the different financing sources. The results are provided for the corporate level as well as the three shareholder levels.

Further, we provide our results for domestic investment in a time-series format for the corporate as well as shareholder level in the file "TimeSeries 1998-2023".

3.2.2 Effective tax burden of a cross-border investment (Annex_D_year)

For a description of the methodology and the assumptions used in the calculation of the effective tax burden measures, please refer to Section B in the current annual report.

Year	4 digit number	Calendar year (NOT fiscal year)
Country_parent	String	Residence country of the parent company
Country_subsidiary	String	Residence country of the subsidiary
Funding_parent	String	Indication of how the investment is financed
	RE	Retained earnings
	NE	New equity
	DE	Debt
	Overall	Mix of financing sources (RE 55%, NE 10%, DE 35%)
Funding_subsidiary	String	Indication of how the investment is financed
	RE	Retained earnings
	NE	New equity
	DE	Debt
	Overall	Mix of financing sources (RE 55%, NE 10%, DE 35%)
Parameter	Numeric, in %	Measure of effective tax burden
	CoC	Cost of Capital
	EATR	Effective average tax rate

3.2.3 Effective tax burden of a small-medium sized domestic company (Annex_E_year)

For a description of the methodology and the assumptions used in the calculation of the effective tax burden measures, please refer to Section E in the current annual report.

Country	String	Country name
Year	4 digit number	Calendar year (NOT fiscal year)
Form	String	
	sme	Incorporated small-medium sized company
	partnership	Partnership
Funding	String	Indication of how the investment is financed
	RE	Retained earnings
	NE	New equity
	DE	Debt
	Overall	Mix of financing sources (RE 55%, NE 10%, DE 35%)
Parameter	Numeric, in %	Measure of effective tax burden
	CoC	Cost of Capital
	EATR	Effective average tax rate
	EMTR	Effective marginal tax rate