Estate, Inheritances, and Gift Taxes (EIG)

Introduction to the Estate, Inheritances, and Gift Taxes Section

The Estate, Inheritance, and Gift Tax (EIG) section of the GC Wealth Project provides a comprehensive data collection on wealth transfer taxes across countries and over time. The EIG section compiles tax policy information as well as tax revenue data. The section contains information about these taxes for over 160 countries, in some instances dating back as far as the 18th century. The EIG section codifies and harmonizes information on common features, such as top tax rates among closest relatives, personal tax exemptions, or full tax schedules. The section also provides revenue statistics for EIG taxes from cumulative sources from 1965 onward. Information is obtained from academic, government, and corporate research, government legislation and legislative information, as well as cross-national research and official statistics. This chapter introduces the reader to the data structure of the EIG section, as well as the general interpretation and construction of each concept.

Data Structure and Interpretation

Downloaded data is provided in long format. All information in the data is sorted by a country's two-letter ISO code (`GEO`), or its full name (`GEO_long`) and `year`. The combination of `GEO`-year and `varcode` identifies univocally the value corresponding to a given information specified by the varcode for **that** GEO-year (see Table 1 for an example).

General assumption

To enhance cross-country comparability and simplify possible over-complexities, we assume that taxes are paid on a monetary transfer to one adult child upon the death of a decedent, assuming no additional circumstantial deductions, reliefs, or credits apply unless otherwise specified in the Note variable[1]. Moreover, in the main variables we do not take into account any additional mitigating factors – like higher exemptions or lower rates for minors or disabled children, while citing those in the notes. Assuming that there is only one heir is crucial in those cases in which an inheritance tax is levied, but the exemption is based on the entire estate (e.g. in Japan); if there is only one heir, an exemption on the inheritance quota is equivalent to an exemption on the entire estate.

There are cases in which wealth transfers are taxed through taxes different from proper EIG taxes (e.g. through the personal income tax); in these cases, we report that there is a form of taxation for the relevant wealth transfer – i.e. status = 1 – and specify in the note which tax is applied. For example, since 2014 the gift tax in Czech Republic is included in the personal income tax. Therefore, the gift tax status equals 1, and the Note variable reports the corresponding additional details.

In the cases in which a gift tax applies on a life-time basis at the death of the donor (e.g. in the US), or is levied only on donations occurred in a specific range of years before the death of donor (e.g. in the UK and in South Corea), we report that a gift tax is levied and we treat it as a traditional gift tax, while specifying in the Note how the taxation is regulated.

Since tax reforms can be approved any time in a year, we follow the general rule of applying the reform from the year in which it is approved. However, if the law clearly specifies the starting date, then we follow the timing established by law (e.g., Sweden unified inheritance and gift abolished in 2004, but the law clarifies it applies to transfer after 31 December 2004 and death-transfers after 17 December 2004). For example, the Economic Growth and Tax Relief Reconciliation Act of 2001 in US, specified that the rules for estate and gift taxes would have been in force until 2009. Therefore, in absence of any amendment or new laws, the tax rules expired in 2009 and no federal tax was applied in 2010 (even in absence of formal tax repeal). In the new data warehouse version 2.0, also includes sub-national information. Currently, only information

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[1]When relevant, we use the rates for the statutory shares (e.g., Luxembourg)

about the US states is included but additional subnational data for other countries will be available in future releases.

For the US states, while the status variable is related to each single state, all the other main variables (e.g., top marginal tax rate, exemption threshold) are reported considering the interaction between state and federal-level taxation (details in Section 5.3). It follows that if some States (e.g., Alabama, Arizona, South Carolina) do not leavy any EIG tax, then they have a corresponding status 0 (No) in the data, but reporting the positive federal top marginal tax rate and exemption threshold.

When a country-level EIG tax is not levied, but there are different regional tax schemes (e.g., Belgium, Switzerland, Brazil, and Canada), we report the national/federal information and detail in the Note if a subnational taxation and possible other information of the regional status.

The `varcode` in the Estate, Inheritance, and Gift Taxes Section

As described in the general warehouse structure section, the `varcode` uniquely identifies each value in the EIG section using five elements: the section, the sector, the type, the concept, and a bracket id. Hence, the `varcode` takes the following form:

$$\underbrace{x}_{\text{Section}} - \underbrace{hs}_{\text{Sector}} - \underbrace{CCC}_{\text{Variable Type}} - \underbrace{DDDDDD}_{\text{Concept}} - \underbrace{ZZ}_{\text{Section Specific}}$$

The first element is a 1-digit code that identifies the section of the GC Wealth Project, which for the case of the Estate, Inheritance, and Gift Taxes takes the value x. The sector element – BB – indicates the type of tax and the group of individuals on which the tax is levied. The following three digits – CCC - refer to the nature of the variable, while the six digits DDDDDD represent the concept of interest. The last two digits – ZZ – allow to identify each specific tax bracket, when applicable.

An example illustrated in Table 1. Here we report the case of the US in 2021 and it possible to better visualize that each combination of `GEO-year` and `varcode` identifies univocally the value corresponding to a given information specified by the `varcode` so that the users can access the value of each varcode. To further clarify, the value 1 in first row corresponds to the varcode `x-ec-cat-status-00` that indicates the status of the estate tax.

Table 1: Simplified Illustration of EIG Data in Long Format

GEO	GEO_long	year	percentile	varcode	value	source	longname	last_update
US	United States	2021	p0p100	x-ec-cat-status-00	1	IRS_Inst2021	Categorical Variable Tax Indicator, of the Estate Tax for Children sector (Non-Bracket Specific)	
US	United States	2021	p0p100	x-ec-rat-adjmrt-01	0	IRS_Inst2021	Rate Marginal Rate for Exemption-adjusted Tax Bracket, of the Estate Tax for Children sector (Bracket n 01)	
US	United States	2021	p0p100	x-ec-rat-adjmrt-02	40	IRS_Inst2021	Rate Marginal Rate for Exemption-adjusted Tax Bracket, of the Estate Tax for Children sector (Bracket n 02)	
US	United States	2021	p0p100	x-ec-rat-toprat-00	40	IRS_Inst2021	Rate Top Marginal Rate, of the Estate Tax for Children sector (Non-Bracket Specific)	
US	United States	2021	p0p100	x-ec-thr-adjlbo-01	0	IRS_Inst2021	Threshold Lower Bound for Exemption-adjusted Tax Bracket, of the Estate Tax for Children sector (Bracket n 01)	
US	United States	2021	p0p100	x-ec-thr-adjlbo-02	1.170000e+07	IRS_Inst2021	Threshold Lower Bound for Exemption-adjusted Tax Bracket, of the Estate Tax for Children sector (Bracket n 02)	
US	United States	2021	p0p100	x-ec-thr-adjubo-01	1.170000e+07	IRS_Inst2021	Threshold Upper Bound for Exemption-adjusted Tax Bracket, of the Estate Tax for Children sector (Bracket n 01)	
US	United States	2021	p0p100	x-ec-thr-adjubo-02	-997	IRS_Inst2021	Threshold Upper Bound for Exemption-adjusted Tax Bracket, of the Estate Tax for Children sector (Bracket n 02)	

US	United States	2021	p0p100	x-ec-thr-exempt-00	1.170000e+07	IRS_Inst2021	Threshold Exemption Threshold, of the Estate Tax for Children sector (Non-Bracket Specific)
US	United States	2021	p0p100	x-ec-thr-toplbo-00	1.170000e+07	IRS_Inst2021	Threshold Top Marginal Rate Applicable From, of the Estate Tax for Children sector (Non-Bracket Specific)
US	United States	2021	p0p100	x-tg-cat-curren-00	840	ISO4217	Categorical Variable Currency, of the EIG Tax sector (Non-Bracket Specific)
US	United States	2021	p0p100	x-tg-rto-prorev-00	0.56	OECD_Rev	Ratio Total Revenue from Tax as % of Total Tax Revenue, of the EIG Tax sector (Non-Bracket Specific)
US	United States	2021	p0p100	x-tg-rto-revgdp-00	0.15	OECD_Rev	Ratio Total Revenue from Tax as % of Gross Domestic Product, of the EIG Tax sector (Non-Bracket Specific)
US	United States	2021	p0p100	x-tg-tot-revenu-00	3.471938e+10	OECD_Rev	Total Total Revenue from Tax, of the EIG Tax sector (Non-Bracket Specific)

To ease the users' understanding on the use of the data, we also provide a wide format transformation of the example in the previous Table 1. The wide transformation is particularly helpful to better understand and visualize the tax schedule of each country-year.

Table 2: Simplified Illustration of a Tax Schedule

GEO	GEO_long	year	bracket	status	adjmrt	toprat	adjlbo	adjubo	exempt	toplbo	prorev	revgdp	revenu
US	United States	2021	0	1	NA	40	NA	NA	1.170000e+07	1.170000e+07	0.56	0.15	3.471938e+10
US	United States	2021	1	NA	0	NA	0	1.170000e+07	NA	NA	NA	NA	NA
US	United States	2021	2	NA	40	NA	1.170000e+07	-997	NA	NA	NA	NA	NA

In Table 2 we have the same information of the long format, but each column-title is the content of the `varcode`. In this case we have an estate tax with two brackets; the first bracket ranging between 0 and 11.7 million of dollars - the exemption level - with a corresponding 0 marginal tax rate. The second bracket ranges from one dollar above the exemption and over with a marginal tax rate of 40%, which represents the top marginal tax rate (toprat). Revenues information are available in the last three columns: prorev, revgdp, revenu. For example, the total revenues collected from the estate tax in 2021 is around 35 billion of dollars, corresponding to around 0.15 of the US GDP, or 0.56 of the total revenues collected by the US in 2021.

Sector: type of tax and affected groups

The EIG sector is identified by a combination of two informative letters. The first letter indicates the type of tax: `e` stands for estate, `i` for inheritance, and `g` for gift tax. When there is insufficient information to distinguish the type of EIG tax (in case of imprecise historical sources and/or status imputation from OECD revenues), we use `t` as the first letter. The second letter denotes the population group on which the tax is levied: `e` for everyone (indicating the tax affects everyone regardless of kinship) or `c` for children (meaning the tax is levied on the children of the donor/decedent). When no specific information is not available, the second letter is `u` i.e., unknown. Lastly, to refer to EIG tax information that does not belong to any specific sector (e.g., revenues or currency), we use `g` as second letter.

Table 3 summarizes the sector combinations.

Table 3: EIG: Sector

Code	Label	Description
tg	EIG Tax	The tax revenue information refers to estate, inheritance or gift tax for the general government sector.
tu	EIG Tax, applies to unknown	The status refers to a general estate, inheritance or gift tax, and the population group to which the tax is applied is not known from the sources available.
te	EIG Tax, applies to everybody	Estate, inheritance or gift tax levied on on anyone regardless of the degree of kinship or relationship to the deceased/donor.
ec	Estate Tax for Children	Estate tax levied on children of the donor/decedent. The group also includes grandchildren, parents and grandparents, unless otherwise stated in the note.
ee	Estate Tax for Everybody	Estate tax levied on on anyone regardless of the degree of kinship or relationship to the deceased/donor. This sector is used also if the estate tax is not levied.
ic	Inheritance Tax for Children	Inheritance tax levied on children of the donor/decedent. The group also includes grandchildren, parents and grandparents, unless otherwise stated in the note.
ie	Inheritance Tax for Everybody	Inheritance tax levied on on anyone regardless of the degree of kinship or relationship to the deceased/donor. This sector is used also if the Inheritance tax is not levied.
gc	Gift Tax for Children	Gift tax levied on children of the donor/decedent. The group also includes grandchildren, parents and grandparents, unless otherwise stated in the note.
gn	Gift Tax for Non Relatives	Gift tax levied on individuals who are not related to the donor/decedent.
ge	Gift Tax for Everybody	Gift tax levied on on anyone regardless of the degree of kinship or relationship to the deceased/donor. This sector is used also if the gift tax is not levied.

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Variable Type
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Six types of variables are used within the EIG section. These are described in Table 4.

Table 4: EIG: Variable Type

Code	Label	Description
rat	Rate	In general, a rate can be expressed as a percentage. For instance, the marginal inheritance tax rate is the amount of tax that is paid on an additional dollar of inheritance received. It represents the rate at which a person's tax liability increases as their inheritance increases. The concept can also be applied to the saving rate which refers to the percentage of disposable income that is saved or not spent on consumption.
rto	Ratio	A ratio describes the relationship between two quantities and is expressed as the quotient of one quantity divided by another. For example, if a country's total private net wealth is €10,000 billion and its total national income is €2,000 billion, the ratio of private wealth to national income is 5 to 1, as total private wealth is five times the amount of national income.
thr	Threshold	A threshold represents a minimum or maximum value that must be met or exceeded, for instance, the minimum value of net wealth that is needed for an individual to belong to the group of the richest 1% of adults, or the maximum value of net wealth that is needed for an individual to belong to the group of the poorest 50% of adults.
cat	Categorical Variable	A categorical variable represents data that can be divided into groups or categories.
tot	Total	Represents the total value of a variable. For instance, total population, or total revenue raised from the inheritance tax.
per	Period	Numeric values that refer to a period (year, month, quarter).

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Concept: Variables
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The next six letters, indicating `Concept` encode the specific variables for this section. These variables can refer to the status of a tax - whether it is levied or not -, the characteristics of the tax (progressivity, top rate, exemption, full tax schedule), and the associated tax revenue information.

Tax status, and bracket-invariant concepts The binary variable *status* is used to indicate whether a country or region levies the transfer tax specified in the first digit of the sector code (estate, inheritance, or gift). Status can take either value 1 (Yes) or 0 (No).

Countries for which no data is available other than the tax revenue from the OECD are marked as having an estate, inheritance, or gift tax if the revenue information is non-zero. These cases are marked as "Inferred from OECD" in their Source variable.

When possible, the data further include a variable indicating the first year for which any wealth transfer tax has been levied in a country or region (*firsty*).

Among the bracket-invariant information, we introduce a new variable *typtax* to facilitate the users in recognizing whether a tax is lump-sum, flat, progressive, or progressive by brackets. The definition is based considering the number of brackets with positive marginal rates. If we do not observe the full schedule but

a specific country-source clarifies the nature of tax under assessment i.e., flat, or progressive, we are able to fill the variable.

Tax exemptions can vary in complexity and detail, and countries differ in how they offer reductions to the final tax bill (exemptions, deductions, rebates, credits, etc.). Unless differently specified, the exemption is considered as a reduction of the tax base. In case the exemption has a different nature (e.g., tax credit as in the case of US), the exemption variable and the tax schedule are adjusted accordingly and details of the adjustments are reported in the Note variable of metadata. If a tax is levied, but there is no exemption, the variable exempt takes value zero. It may also happen that the tax is levied, but it exists a full exemption; in this case, exempt will take value -997 (and_over).

The last two tax concepts invariant to brackets are the top rate – the marginal tax rate on the last bracket - (`toprat`) and the lower bound threshold above which the top rate for the specified tax applies (`toplbo`). When a tax exists, `toprat` typically takes positive values, unless a full exemption exists (zero `toprat`). On the contrary, it takes value zero when tax is not levied. The same logic applies to the `toplbo`.

Tax revenues   Tax revenues correspond to the 4300 series of tax revenues from the OECD Revenue Statistics Database of the Organisation for Economic Co-operation and Development (OECD) (downloaded July 12, 2024) and are reported in three different concepts: `revenu`, for the EIG tax revenues in local currency units; `prorev` stands for EIG tax revenues in percentage of total tax revenues; `revgdp` for the EIG tax revenues in percentage of GDP. Revenues information are available since 1965 on for most of the OECD countries.

Tax schedules   When full tax schedule is available, it is identified by a set of tax brackets. These are a combination of three concepts: adjusted lower bound (`adjlbo`), adjusted upper bound (`adjbo`), and adjusted marginal rates (adjmrt). Therefore, each bracket identifies the amount of transfer above the adjlbo and below the adjbo to which the adjmrt applies.

Each bracket corresponds to a single GEO-year-varcode combination and is identified by the last two digits of the varcode.

Unless the tax is proportional , the schedules are typically cumulative in structure, such that the rate in a bracket that corresponds to a wealth transfer value only applies to the proportion of the transfer that is greater than the highest amount in the previous bracket. That is, if the transfer amount excesses the previous tax bracket by one currency unit, the higher tax rate (of the following bracket) only applies to one currency unit.

We adjust the schedules to make them more comparable across countries. In particular, we modify the statutory schedule of each country to include the exemption as a first tax bracket with a zero marginal rate. Furthermore, we convert the bounds of the brackets to the most recent local currency units , and merge the brackets with the same marginal rate to obtain the effective number of brackets. It is important to note that if the country levies a tax but applies a full exemption for direct heirs, we then follow an "economic effectiveness" principle and adjust the status and corresponding tax schedule to be equivalent to a no-tax scenario.

In the case the exemption is a reduction of the tax base, the adjustment consists in a shift of the tax brackets equivalent to the amount of the exemption. Differently, when the exemption is a tax credit, the adjustment consists in setting the amount of the tax credit as the new lower bound of the first bracket of the tax schedule and reporting zero marginal rate below it.

For instance, consider the U.S. federal estate tax: The statutory schedule contains a progressive schedule, but because the exemption is so high (nearly 13 million USD as of 2023), every bracket but the last is effectively within the tax credit range. Therefore (assuming no other deductions or credits apply), all amounts below (and many above) the last bracket would yield a final tax bill of zero. The result is a proportional tax rate that applies to relatively large estates of several million dollars.

All the concepts described above are summarized in the Table 5 here below.

Table 5: Estate, Inheritance, and Gift Tax Variable Definitions

Code	Label	Description
revenu	Total Revenue from Tax	Total revenue from the specified tax at all government levels in local currency units.
prorev	Total Revenue from Tax as % of Total Tax Revenue	Total revenue from the specified tax as a percentage of total tax revenue in the selected sector.
revgdp	Total Revenue from Tax as % of Gross Domestic Product	Total revenue from the specified tax as a percentage of GDP in the selected sector.
adjlbo	Lower Bound for Exemption-adjusted Tax Bracket	The value of tax base over which the tax rate applies in local currency units, adjusted to include the exemption amount in the tax schedule as a zero rate bracket, if needed.
adjubo	Upper Bound for Exemption-adjusted Tax Bracket	The highest tax base value for which the tax rate applies in local currency units, adjusted to include the exemption amount in the tax schedule as a zero rate bracket, if needed. It takes value -997 for the highest bracket if the interval is open.
adjmrt	Marginal Rate for Exemption-adjusted Tax Bracket	The rate of taxation on tax base values between the bracket lower bound and the bracket upper bound, adjusted to include the exemption amount in the tax schedule as a zero rate bracket, if needed. It is reported as zero in case the tax is not levied and for the exemption bracket.
curren	Currency	ISO4217 numeric code of the in local currency units in which the monetary values are reported.
status	Tax Indicator	Whether or not the country levies the specified tax for the given year. It is encoded as a 0/1 indicator variable.
typtax	Type of Tax	The structure of the adjusted tax schedule, if applicable. The variable is encoded as follows: 1 lump-sum (fixed), 2 flat (proportional with a single rate applies to all tax base), 3 progressive (proportional with tax rates increasing with the tax base), 4 progressive by brackets (proportional with tax rates increasing with the tax base, with different portions of the tax base - brackets - taxed at different rates), -998 not applicable because the tax is not levied or there is full exemption. The type of tax is based on the number of positive tax rates included in the adjusted tax schedule.
firsty	First Year for Tax	The first year the specified tax is introduced in the country. It may predate the year of legal birth of the country, such as in the case of unified kingdoms or of former colonies.
exempt	Exemption Threshold	The exemption threshold in local currency units applicable to the group, assuming no additional exemptions, credits or relief. It is reported as zero in case of no exemption, as -997 in case of full exemption (no tax is due), as -998 if it is not applicable because the tax is not levied.
toprat	Top Marginal Rate	The highest statutory rate for the specified tax. It is encoded and zero in case the tax is not levied or there is full exemption.
toplbo	Top Marginal Rate Applicable From	The minimum amount in local currency units including and above which the top rate for the specified tax applies to the group. It is encoded and zero in case the tax is not levied or there is full exemption.
homexe	Family Home Exempt	Whether the family home (i.e. the habitual abode) is exempt from taxation. It takes value -998 if it is not applicable because the tax is not levied.

`Section Specific: Bracket Numbers`

Finally, the last two letters in the `varcode` denote the section-specific variables, which for the EIG section refer to the tax bracket number when needed. Full tax schedule information will vary by tax bracket, while bracket-invariant information is reported for the bracket "00" as illustrated in the example in Table 2.

Regional Information

Compared to v1, the current release introduces regional information for the United States i.e., States specific tax schedules. However, also other countries have regional taxation schemes; while we do not include them in the warehouse, we report the information in the Note variable and highlight below the main relevant cases of regional schemes.

Belgium:

Compared to v.1 and according to the "General assumptions" (cross-ref to sezione), Belgium does not levy EIG taxes at national level since 1989 (Law of 16 June 1989 – YaleInheritance reference), but the three regions - Flemish, Walloon, Bruxelles-Capital – can set their own taxes. It follows that - compared to the v.1 data - the v.2 displays a national EIG tax status equals to "0" (No) since 1989. Each region levies inheritance and gift taxes applying different rates. For example, taking the first child beneficiary as reference, the inheritance tax rate ranges between 3 and 30% in Bruxelles-Capital and Walloon regions; in Flemish region it ranges between 3 and 27%.

Brazil:

According to Carvalho Junior (2018 **REFERENCE**), and Tax Introduction Database (TIDD **REFERENCE**), Brazil levies EIG taxes at state level since 1934. The act 27 of 1966 amended the tax law of 1965 (a Emenda Constitucional nº 18/1965) setting a federal level maximum top rate for gift and inheritances to 2%. This maximum top rate was raised in 1988 to 8%. Therefore, compared to the v.1 data, in v.2 Brazil displays a national EIG tax status always equals to "0" (No).

Bulgaria:

In Bulgaria, the Law 117 of Dece,ber 10, 1997 established that inheritance and gift taxes are levied at municipality level. Therefore, there has been no national EIG taxation since 1998.

Spain:

EIG tax is a national tax, however there might be important differences between regions in terms of tax rates, reductions, and other benefits that significantly reduce the tax burden. Because of this, effective inheritance taxation is much higher under national law than under regional regimes. Furthermore, the autonomous regions of Navarre and Basque Country have a wide right to self-regulate gift and inheritance tax. Taxation in these regions is significantly different from the national Spanish tax laws. We report the information on national taxation, but we include in the Note some regional details (when available).

Switzerland:

In Switzerland, the cantons have an exclusive right to set their own gift and inheritance taxes. According to EY (**citekey EYa and EYb**), the canton tax system applies since 2006. However, from 1973 to 2005, the EIG tax revenues are gathered at regional and local level according to the OECD Revenue data (**citekey**). Therefore, we assume that the taxation was at the canton level even before 2006. In practical terms, the status for the national EIG taxation has been set to "0" (No) since 1973.

United States:

As of the public release v.2, the data also include regional-level tax information for all U.S. states. Varcodes and variables for the regional level adhere to the database structure outlined above. In particular, GEO and GEO_long codes include the federal code/name (e.g., US/United States) followed by the state code/name (e.g., IL/Illinois), separated by a comma.

We note some important conceptual differences. First, the tax status variable refers to the state-level, irrespective of federal taxes that also apply within state boundaries. Thus, if a given state indicates status = 0, the tax in that state can still be subject to the federal estate tax, if it applies. On the contrary, adjusted tax schedule variables combine full tax schedule information of federal- and state-level taxes. That is, EIG taxes levied by the state can provide adjustments of the statutory schedule depending on interactions with the federal tax. Thus, our state-level adjusted schedules take the joint structure of taxes at both levels into account in order to arrive at tax exemptions, brackets, and marginal rates that are readily comparable across states within the U.S. It may happen that a single US state applies an inheritance tax. Since the federal tax is an estate tax, the interaction of the two schemes requires the assumption that the inheritance is received by a single direct descendant without siblings. Lastly, state and federal tax interactions can lead to marginal tax structures with spikes within the tax bracket structure. Put differently, the highest tax rate in an adjusted schedule might be in a lower bracket and inheritances above that bracket will be subject to lower rates. In such cases, the top marginal tax rate refers to the last bracket in the (progressive) tax schedule rather than to the highest tax rate.