

**Behavioral Responses to
Inheritance Taxation**

A Review of the Empirical Literature

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Keywords: inheritance taxation, wealth taxation, behavioral responses, tax elasticities, tax avoidance

JEL codes: D9, H24, H26, H3

1. Introduction

The subject of inheritance taxation has experienced a come-back in the academic and political debate. Inheritance taxation can be an effective tool to support social mobility and equality of opportunity, as argued, for example, by Garbinti and Goupille-Lebret (2018) for France, by Waldenström (2018) for Sweden, and by Bach (2021) for Germany. Recent research suggests that inheritance taxes can also reduce wealth inequality in the longer run, particularly if they focus on the very wealthy (Nekoei and Seim, 2022), and if revenues finance equality-enhancing measures (Elinder et al., 2018)¹. Against this background, higher taxes on large inheritances have been proposed repeatedly as one equitable option in the current debate how to reduce public debt, which has risen markedly in most countries worldwide (e.g., IMF, 2021; OECD, 2021) due to the recent multiple crises. Moreover, with increasing wealth concentration in many countries, wealth concentration externalities (e.g., in the form of democracy-endangering attempts to exert disproportionate influence on the political process by the very wealthy, see, e.g., Kopczuk, 2010) are increasingly moving into focus.

In a longer-term perspective, demographic developments are leading to ageing societies and a decrease of the labor force all over Europe, which could depress the labor share in total income. Hence, options to secure long-term sufficiency and fiscal sustainability of European tax systems need to be explored. Strengthening the taxation of inheritances offers itself as a promising option in this regard, not only for fiscal reasons, but also based on equity and efficiency arguments (OECD, 2021). Simulations by Akgun et al. (2017) suggest that revenue-neutral shifts of the tax burden away from, e.g., labor taxes towards inheritance taxes may simultaneously increase output and decrease inequality.

At the same time, inheritance taxes have lost significance in many countries over time, although inheritances appear to become more and more important: Piketty (2011), Alvaredo et al. (2017), Atkinson (2018), and Acciari and Morelli (2020) find increasing shares of inheritances in relation to national incomes for France, Germany, Italy, Sweden, the United Kingdom, and the United States.

One disputed aspect of inheritance taxes is their potential impact on the behavior of the parties involved. Inheritance taxes can be associated with a broad array of different behavioral responses on the side of bequeathers and heirs, respectively. As the current focus on the taxation of inheritances is often motivated by the quest for tax instruments with significant long-term revenue-raising potential, the paper concentrates on those behavioral effects that may dampen the revenue potential of inheritance taxes.

Empirical evidence on the behavioral effects of inheritance taxation is still sparse but has been growing in the last few years. An increasing number of analyses study past or planned reforms, respectively, or exploit regional differences between existing inheritance tax systems to identify behavioral responses to (changes in) inheritance taxation.

¹) For an opposing view see Black et al. (2022) who find for Norway that gifts and inheritances hardly influence the distribution of wealth and conclude that an inheritance tax would be no effective instrument to mitigate extreme wealth inequality.

A comprehensive review of empirical evidence regarding behavioral responses to inheritance taxes with a potential impact on revenue is missing, however. The paper therefore aims at closing this gap by providing a broad-based overview of potential behavioral reactions of donors and donees to inheritance taxes and the relevant empirical research. Similar to the survey by Advani and Tarrant (2021) on behavioral responses to a net wealth tax, the motivation behind this review is twofold. First, the survey aims at informing policymakers intending to reform existing inheritance taxes or to (re)implement inheritance taxes in a way that allows effective tax collection, by identifying behavioral responses that are dependent on policy design. Second, it aims at providing plausible ranges for responses to inheritance taxation that can be used to estimate revenue implications of reforms of existing inheritance taxes or of their (re)implementation, or to determine optimal inheritance tax rates, as done by Piketty and Saez (2013) for France and the United States.

Chapter 2 starts with an overview of existing and historical inheritance taxes in the OECD and presents trends in their revenues for the past half century. Chapter 3 categorizes potential behavioral responses to inheritance taxation, hereby differentiating between bequeathers and heirs. In chapter 4, empirical evidence addressing those behavioral responses that may influence revenues from inheritance taxes is surveyed. Chapter 5 concludes by deriving policy implications and identifying research gaps.

2. Existing and historical inheritance taxes in the OECD

Taxes on inheritances are among the oldest taxes particularly in European tax systems (see Table 1) and can take the form of either inheritance or estate taxes. While both are levied upon the death of the bequeather, an inheritance tax is imposed on the heirs, whereas the estate tax is paid by the estate itself (Naess-Schmidt et al., 2011)². The majority of European and other OECD countries, respectively, have (had) an inheritance tax. Estate taxes are applied only in the Anglo-Saxon countries and in Denmark, which levies both an inheritance and an estate tax. Not least because of the dominance of inheritance taxes we will – hereby following the literature (e.g., Boadway et al., 2010) – use the term inheritance taxes throughout the rest of the paper when addressing general aspects of the taxation of bequests.

Several European and other OECD countries outside Europe, respectively, have repealed their inheritance or estate taxes since the beginning of the 1960ies (see Table 1). However, they are still an element of most tax systems in the developed world. With the exception of most federal states, inheritance taxes normally are assigned to the central level.

Table 1 provides an overview of existing and historical inheritance/estate taxes in Europe as well as in the non-European OECD countries. Currently, 21 European countries levy an inheritance or estate tax. Seven European countries and five non-European OECD countries have abandoned their inheritance or estate taxes during the last sixty years. Only four European countries (Estonia, Latvia, Malta, and Romania) have never taxed inheritances in the first place. Among the non-OECD G20 members, Brazil, South Africa, and the Argentinian province Buenos

²) Batchelder (2009) provides a detailed discussion of the differences between estate and inheritance taxes.

Aires tax inheritances. India and Russia have repealed their inheritance taxes, and China, Indonesia, and Saudi Arabia have never had one³. Reasons reported by OECD countries for not implementing or repealing inheritance taxes in an OECD questionnaire include their unpopularity and lack of political support as well as high administrative costs compared to modest revenues (OECD, 2021). It is worth noting that undesirable behavioral responses have not been mentioned.

Figure 1a shows that the share of revenues from inheritance or estate taxes (including gift taxes)⁴ in overall tax revenues has decreased markedly since 1970 in the OECD countries as well as in Europe.

A closer look reveals that inheritance/estate tax revenues fell sharply until the beginning of the 1980s and stagnated until the mid-1990s, to slightly decrease again and to stagnate until the outbreak of the global financial crisis. During the past decade, their weight in percent of total taxation as well as of GDP (see Figure 1b) has slightly grown again. On average across all OECD countries, the share of inheritance/estate taxes in total tax revenues has fallen from 1.08% to 0.37% between 1965 and 2020. The shares for European OECD countries have converged to the OECD values until the beginning of the 1980s and are almost identical since then. This development is caused by the abolishment of or cuts in inheritance/estate taxes in several countries, in some countries also by the use of elaborate tax planning strategies (OECD, 2021).

Considering only those countries that currently levy inheritance/estate taxes shows that their revenues have also lost in importance in the long run (see Table 1): the share of inheritance/estate tax revenues in overall tax revenues went down from a yearly average of 0.66% during the 1970s to 0.53% in the period 2010-2020 in all OECD countries and from 0.62% to 0.50% in European countries with an inheritance tax.

Existing inheritance tax systems are often rather complex. First of all, valuation rules in many cases are complicated and differ for the various kinds of assets, and there are manifold exemptions differentiated across different kinds of assets and/or different types of heirs. “Double-progressive” tax regimes, combining a directly progressive tax schedule with several tax classes differentiating tax rates according to the proximity of the relationship between bequeather and heir (Drometer et al., 2018), further add to complexity. The coordination of the taxation of gifts and inheritances to prevent the use of gifts to circumvent inheritance taxes is another source of complexity. In most countries the taxation of wealth transfers covers both inheritances and gifts. The majority of EU countries apply integrated taxation systems to both inheritances and gifts, only a few Member States tax inheritances and gifts separately (Drometer et al., 2018); the same is true for OECD countries in general (OECD, 2021).

³) Unfortunately, comprehensive information on inheritance and estate taxes for non-OECD countries is not available, particularly not for the poorer countries. Interestingly, of 44 African countries surveyed by Deloitte (<https://dits.deloitte.com/#TaxGuides>), 18 tax inheritances, mostly in the form of inheritance taxes. These are often based on double-progressive systems; in 3 African countries heirs are to pay a lump-sum inheritance tax.

⁴) As revenues from inheritance/estate taxes and from gift taxes are not reported separately for several OECD countries in the OECD revenue statistics, we use overall revenues here. Gift tax revenues make up for a small portion of overall inheritance/estate and gift tax revenues only and have remained stable over time (OECD, 2021).

Table 1: Current and historical inheritance and estate taxes in the EU, European and non-European OECD countries, 2020

Country	Tax first introduced year	Year of repeal year	Statutory tax rates in %	Revenues ¹²⁾ in % of			
				Total tax revenues		GDP	
				1970-1980	2010-2020	1970-1980	2010-2020
Existing inheritance/estate taxes							
Belgium ¹⁾⁴⁾⁵⁾¹⁰⁾	1936	–	3 bis 85,75 ⁵⁾	0.85	1.56	0.32	0.68
Denmark ¹⁾²⁾¹⁰⁾	1995	–	0 bis 36,25	0.40	0.51	0.16	0.24
Bulgaria ¹⁾⁴⁾	1998	–	0,4 bis 6,6	n.v.	n.v.	n.v.	n.v.
Croatia ¹⁾⁴⁾	2018	–	3 bis 4	n.v.	n.v.	n.v.	n.v.
Finland ¹⁾¹⁰⁾	1940	–	7 bis 33	0.23	0.66	0.08	0.28
France ¹⁾¹⁰⁾	1791	–	5 bis 60	0.59	1.18	0.21	0.53
Germany ¹⁾¹⁰⁾	1974	–	7 bis 50	0.19	0.51	0.06	0.19
Greece ¹⁾¹⁰⁾	2001	–	1 bis 40	1.22	0.20	0.24	0.07
Hungary ¹⁾¹⁰⁾	1918	–	18	n.v.	0.06	n.v.	0.02
Ireland ¹⁾¹⁰⁾	1976	–	33	1.05	0.62	0.29	0.15
Italy ¹⁾¹⁰⁾	2006	–	4 bis 8	0.35	0.09	0.09	0.04
Lithuania ¹⁾⁴⁾¹⁰⁾	2003	–	5 bis 10	n.v.	0.01	n.v.	0.00
Luxembourg ¹⁾¹⁰⁾	1817	–	0 bis 48	0.38	0.40	0.11	0.15
Netherlands ¹⁾¹⁰⁾	1956	–	10 bis 40	0.47	0.65	0.17	0.24
Poland ¹⁾¹⁰⁾	1983	–	0 bis 20	n.v.	0.05	n.v.	0.02
Slovenia ¹⁾¹⁰⁾	2006	–	5 bis 39	n.v.	0.07	n.v.	0.02
Spain ¹⁾⁴⁾¹⁰⁾	1988	–	7,65 bis 81,6	0.71	0.69	0.13	0.23
Iceland ¹⁾¹⁰⁾	1792	–	10	0.10	0.41	0.03	0.15
Switzerland ¹⁾⁴⁾⁸⁾¹⁰⁾	1986	–	0 bis 50	0.93	0.59	0.19	0.16
United Kingdom ²⁾¹⁰⁾	1986	–	40	1.25	0.67	0.41	0.22
Chile ¹⁾	1915	–	1 bis 25	n.v.	0.26	n.v.	0.05
Japan ¹⁾	1950	–	10 bis 55	0.99	1.19	0.21	0.36
Korea ¹⁾	1950	–	10 bis 50	0.33	1.34	0.05	0.33
Turkey ¹⁾¹⁰⁾	1959	–	1 bis 10	0.31	0.09	0.03	0.02
United States ²⁾⁹⁾	1916	–	0 bis 18	1.56	0.51	0.39	0.13
European countries	–	–	–	0.62	0.50	0.18	0.19
OECD	–	–	–	0.66	0.53	0.18	0.19
Historical inheritance/estate taxes							
Austria ¹⁾¹⁰⁾	1955	2008	2 bis 60	0.17	–	0.06	–
Czech Republic ¹⁾⁶⁾¹⁰⁾	1993	2014 ⁵⁾	3,5 bis 20	n.v.	0.15	n.v.	0.05
Portugal ¹⁾³⁾¹⁰⁾	1959	2004	5	0.86	–	0.15	–
Cyprus ¹⁾⁷⁾	n.v.	2001	n.v.	n.v.	n.v.	n.v.	n.v.
Slovak Republic ¹⁾¹⁰⁾	1993	2004	1 bis 40	n.v.	–	n.v.	–
Sweden ¹⁾¹⁰⁾	1884	2004	30	0.26	–	0.10	–
Norway ¹⁾¹⁰⁾	1792	2014	0 bis 15	0.17	0.18	0.07	0.07
Australia ²⁾⁴⁾	1914	1979	27,9	1.76	–	0.41	–
Canada ²⁾	1958	1972	10 bis 54	0.94	–	0.28	–
Israel ¹⁾	1949	1980	5 bis 70	n.v.	–	n.v.	–
Mexiko ¹⁾⁴⁾	1926	1961	n.v.	–	–	–	–
New Zealand ²⁾	1866	1993	40	1.22	–	0.35	–
European countries	–	–	–	0.37	0.16	0.10	0.06
OECD	–	–	–	0.77	0.16	0.20	0.06
Total¹¹⁾							
European countries	–	–	–	0.57	0.46	0.16	0.18
OECD	–	–	–	0.69	0.51	0.18	0.18

Sources: OECD (2021; 2022), Ernst & Young (2019), Deloitte (n.y.) Global Property Guide (2023), Süß (ed.) (2019); own compilation and calculations. – 1) Inheritance tax. – 2) Estate tax. – 3) Inheritances are subject to a stamp duty. – 4) Subnational tax. – 5) Brussels-Capital region. – 6) Inheritances are subject to personal income tax. – 7) Inheritances may be subject to transfer fees. – 8) Canton of Zurich; most Swiss cantons levy an inheritance tax. – 9) Some states additionally levy a separate inheritance or estate tax. – 10) European OECD country. – 11) Countries with current and historical inheritance/estate taxes. – 12) Including gift taxes, as for some countries revenues cannot be split between inheritance/estate taxes and gift taxes.

Figure 1a: Estate, inheritance and gift taxes, percentage of total taxation

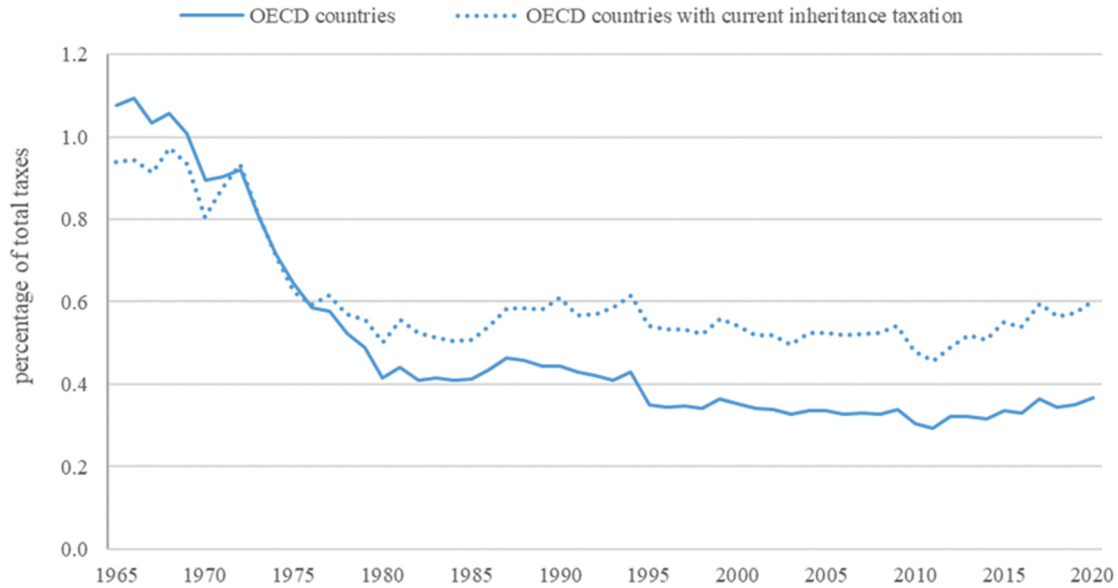
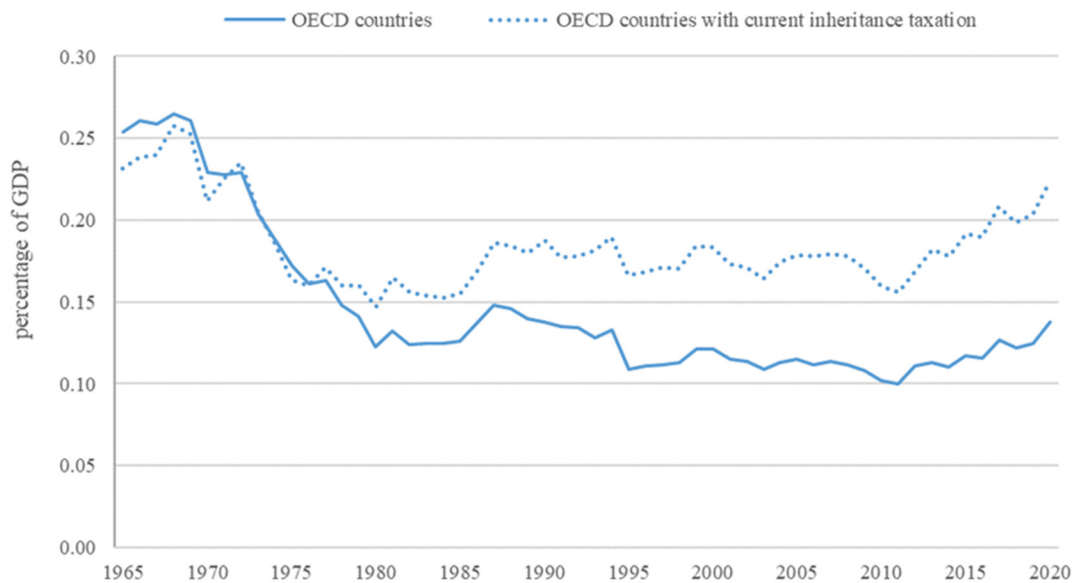


Figure 1b: Estate, inheritance and gift taxes, percentage of GDP



Source: OECD (2022) (Revenue Statistics database, extracted on 11 May 2022 06:41 UTC (GMT) from OECD iLibrary, 4300 Estate, inheritance and gift taxes). Simple Averages. OECD countries: all 36 OECD countries. Countries with current inheritance taxes: Belgium, Chile, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Lithuania, Luxembourg, Netherlands, Poland, Slovenia, Spain, Switzerland, Turkey, United Kingdom, United States. 2022: preliminary data; Australia, Greece, Japan missing.

3. Behavioral effects of inheritance taxes – a categorization

Theoretical considerations as well as the growing, albeit still rather limited empirical evidence suggest that neither taxpayers' decisions nor the tax base are completely inelastic with respect to inheritance taxation. With regard to our starting point, i.e., the search for taxes promising substantial tax revenues also in the long run, behavioral responses influencing the revenue potential of inheritance taxes are the main focus of this paper.

Unlike most other taxes, inheritance taxation involves two parties whose behavior it can affect: the prospective bequeathers on the one hand and heirs on the other hand (Jestl, 2021). Generally, real responses related to economic decisions and pure (legal and illegal) avoidance responses including the declaration of taxable wealth transfers or other tax avoidance reactions without real economic consequences can be distinguished (Brühlhart and Schmidheiny, 2018). Real responses include a multitude of economic decisions by bequeathers and heirs, respectively (e.g., Joulfaian, 2005; Kopczuk, 2013a, 2013b; Goupille-Lebret and Infante, 2018). Inheritance tax revenues therefore could be influenced by a broad range of real and accounting responses.

The most relevant real behavioral responses by bequeathers concern their labor supply (including retirement decisions); residential choice; entrepreneurship and firm development; and the accumulation of wealth. Tax avoidance reactions comprise inter vivos transfers; (illegal) transfers of wealth offshore; and other pure accounting measures (see Figure 2). All these potential responses would negatively impact the revenue potential.

A large body of theoretical literature demonstrates that bequeathers' bequest motives are a crucial determinant of their behavioral responses to inheritance taxation (see, e.g., Gale and Slemrod, 2001; Kopczuk and Slemrod, 2001; Cremer and Pestieau, 2011 for overviews of the theoretical literature). "Accidental" or unintentional bequests, which lack an explicit bequest motive and do not provide any utility to bequeathers, should be insensitive to inheritance taxation, implying that labor supply and savings decisions of donors are not influenced by inheritance taxes (Cremer and Pestieau, 2011). This should be different for donors with a bequest motive, whereby – depending on the specific bequest motive – an increase as well as a decrease of labor supply is theoretically conceivable (Gale and Perozek, 2001; Joulfaian, 2016). The same argument can be made for savings decisions.

Specifically, the reaction of altruistic donors, whose utility is enhanced by the improvement of well-being of heirs through leaving an inheritance, depends on the extent of income and substitution effects. An inheritance tax may on the one hand harm donors' incentives to work and save, as it reduces the potential wealth transfer. On the other hand, altruistic bequeathers may increase their work efforts and savings to make up for the expected inheritance tax burden. These two contradicting effects may also work in the case of donors transferring wealth to their heirs just for the "joy of giving" ("warm glow" motive, Andreoni, 1990). Decedents motivated by strategic deliberations, who promise a wealth transfer to their heirs in return for a service, e.g., care in old age⁵, are the less responsive to inheritance taxation the less substitutable the

⁵) See Cox (1987) for this so-called exchange model.

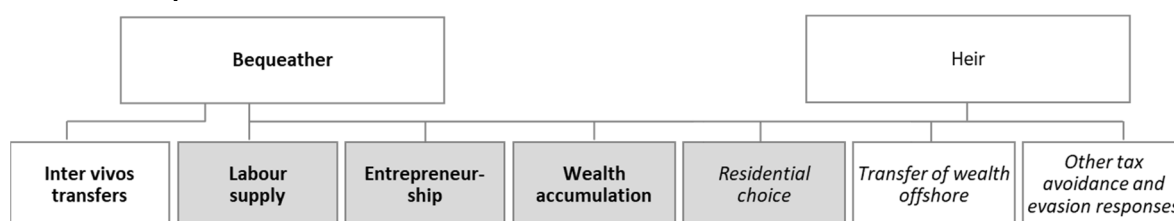
desired service or behavior (e.g., heirs' affection and care) is, and can be expected to increase their savings as a reaction to (higher) inheritance taxes (Kopczuk and Slemrod, 2001).

The bequest motive could also influence the use of tax-advantaged inter vivos transfers (Niimi, 2019). Altruistic bequeathers are more likely to accelerate wealth transfers through inter vivos transfers as a means to reduce the overall tax burden on the estate. Donors with an exchange motive, however, may be more hesitant to utilize preferential tax provisions for inter vivos transfers for fear of losing leverage on heirs.

Empirical evidence on the validity and importance of the various bequest motives is inconclusive (Kopczuk, 2010). Empirically, bequest motives are impossible to observe. Moreover, a potential donor's decisions may be driven by several bequest motives, and their importance differs across decedents (Gale and Slemrod, 2001). Very generally, the very wealthy are to a much larger extent influenced by non-accidental bequest motives (Kopczuk and Lupton, 2007).

On the part of heirs, inheritance taxation may impact labor supply (including retirement decisions), wealth accumulation, and entrepreneurship, which, however, is irrelevant for its revenue potential. In addition, an inheritance tax may induce heirs to move to no- or low-tax jurisdictions or to transfer inherited wealth offshore. It may also cause accounting and other avoidance reactions, i.e., the under-declaration of received inheritances for taxing purposes or other timing or shifting responses without real economic consequences. All these responses could affect the revenue potential of an inheritance tax. Overall, compared to heirs, bequeathers dispose of a broader range of potential responses to inheritance taxation, implying that their responses have a larger impact on the revenue potential of inheritance taxation.

Figure 2: Behavioral responses to the taxation of inheritances with an impact on inheritance tax revenue potential



Source: own representation. – bold: impact on inheritance tax revenue potential can be expected from response of bequeather. – italics: impact on inheritance tax revenue potential can be expected both from responses of bequeather and heir. – shaded: real responses.

Inheritance taxes may be associated with further economic effects, which do not directly impact inheritance tax revenues, but have direct and indirect effects on revenues from other taxes. The most important impact dimensions are the performance of inherited firms (e.g., Pérez-González, 2006; Grossmann and Strulik, 2010), the decision to sell or keep a family business within the family (e.g., Tsoutsoura, 2015), entrepreneurship among heirs (i.e., the creation of businesses by heirs or their propensity to become self-employed; see, e.g., Garbinti and Goupille-Lebret, 2018; Bauer et al., 2018), charitable bequests and contributions (see, e.g., Joulfaian, 2004, 2005 for references for the United States), savings (Basiglio et al., 2023), labor

supply (see, e.g., Holtz-Eakin et al., 1993, for the so-called “Carnegie effect”⁶, see also Bø et al., 2019; Doorley & Pestel, 2020; or Basiglio et al., 2023) and retirement decisions (Brown et al., 2010, or Garbinti and Georges-Kot, 2016), or educational decisions of heirs (Kindermann et al., 2020).

The extent and the direction of indirect long run as well as general equilibrium effects of inheritance taxes are uncertain and hard to quantify. They are therefore neglected in our review. This is not to say that they are irrelevant with regard to tax revenues in general. On the contrary, they may well have an impact on other taxes: if, for example, an inheritance tax influences entrepreneurship, education decisions, or labor supply of heirs, an impact on revenues from business, personal income, and labor taxes can be expected⁷. Inheritance taxes levied today may also indirectly influence tomorrow’s inheritance tax revenues in both directions: if, for example, an inheritance tax induces heirs to increase their labor supply, they can accumulate more wealth and leave higher inheritances, which in turn would increase future inheritance tax revenues. If inheritance taxation on the other hand discourages entrepreneurship, the build-up of business assets may be dampened, thus decreasing future inheritances and inheritance tax revenue potential accordingly.

4. Behavioral effects of inheritance taxes – empirical evidence

Empirical evidence of taxpayers’ reactions to wealth-based taxation in general and particularly to inheritance and gift taxation is still limited, particularly with regard to methodologically up-to-date contributions. Only very recently, a growing number of empirical analyses explore various potential behavioral effects of wealth-based taxation. This comprehensive review on the state of the empirical research on behavioral responses to inheritance taxation particularly focuses on the various channels (real ones and those of a more accounting/avoidance nature) via which inheritance taxation may induce behavioral responses. I also try to identify differences between the behavioral impact of inheritance and wealth taxation to shed light on the question whether an inheritance tax is more efficient than a net wealth tax. Hereby I focus on behavioral responses influencing the revenue potential of inheritance taxes: wealth accumulation, entrepreneurship and firm development, residential choices, tax planning, avoidance, and evasion, and inter vivos transfers. As there is almost no research on the direct effects of inheritance taxes on donors’ labor supply⁸, I will not deal with this impact dimension. The focus of the survey on revenue-relevant behavioral responses implies that the bulk of empirical

⁶) The “Carnegie effect” refers to a negative effect of inheritances on labor supply (Holtz-Eakin et al., 1993).

⁷) Kindermann et al. (2020) for example demonstrate for Germany that an inheritance tax may increase heirs’ labor supply and thus labor income tax revenue. For Sweden, Cesarini et al. (2017) find that every € collected through inheritance taxes induces additional income tax revenues of 0.09 € through an increase of labor supply and thus labor income.

⁸) To my knowledge, the only empirical study on the direct impact of inheritance taxation on the labor supply of bequeathers was conducted by Holtz-Eakin (1999) who finds that people over the age of 50 work less in face of high estate tax rates. Kopczuk and Slemrod (2001) point out that the results of the empirical literature on the impact of income taxes on labor supply are relevant also for the estate tax, which can be seen as a specific form of taxation of labor incomes.

research reviewed concentrates on the impact of inheritance taxation on the behavior of potential bequeathers.

4.1 A few methodological remarks

At first some methodological aspects and specific characteristics of the empirical research on behavioral impacts of the taxation of inheritances shall be addressed briefly.

A first observation is that the by far larger part of the existing empirical evidence consists of ex-post analyses, while ex-ante studies are far less widespread. The increasing body of ex-post research is most useful from a policy perspective, as it allows to derive lessons that can help to design newly introduced inheritance taxes in an effective and efficient way or to reform existing ones accordingly.

Ex-post studies are based on cross-sectional or time series data including administrative tax data (tax records, tax rates and other tax provisions, etc.); sometimes also on other administrative and registry data (e.g., reported bequests, migration or health data, etc.); on survey data (on wealth and its distribution or on motives, attitudes and planned behavior related to inheritance taxation); and more recently also on rich list data⁹.

Studies using survey data may encounter issues with the quality of data, resulting, e.g., from a lack of representativity, under-reporting, or non-response. At the same time, invisible aspects, in particular beliefs, knowledge, attitudes, perceptions, and reasoning which are hard to detect in analyses based on administrative data, can be identified best by using surveys (Stancheva, 2022). Also, tax data have their potential drawbacks: for example, tax files data only capture that part of the population paying inheritance taxes, thus excluding poorer households, which impairs representativity (Jappelli et al., 2010).

Whereas cross-sectional data have the advantage of better availability, they generally do not allow to distinguish between transitory and permanent responses (Joulfaian, 2004). Cross-sectional analysis is also confronted with the challenge of disentangling tax effects from other effects. On the other hand, the variables used in time series studies (e.g., tax revenues) may be correlated with other variables (Jappelli et al., 2010).

Earlier studies mainly apply regression analysis or descriptive statistics and are generally more interested in macroeconomic aspects (e.g., wealth accumulation or tax revenues). More recent research often rests on micro-econometric analysis, and particularly on the difference-in-differences method or on bunching approaches¹⁰, to identify the impact of inheritance taxation on the behavior of individuals or households (e.g., inter vivos transfers or migration). In contrast to the difference-in-differences method, bunching approaches allow to study intensive margin decisions (Kleven, 2016), but do not capture extensive margin real responses (Jakobsen et al., 2020).

⁹) Thus, following a recent trend in research on top wealth and its taxation using rich lists; see Baselgia and Martínez (2022) for a brief overview of recent literature.

¹⁰) For an in-depth presentation and discussion of bunching approaches, see Kleven (2016).

Ex-ante studies try to identify and illustrate future behavioral responses to (changes in) inheritance taxation, often based on model simulations or regression analysis using survey data.

Generally, the reliability of the findings of ex-post studies (given high quality of data and a rigorous and appropriate methodological approach) is larger than that of ex-ante studies, as the latter rest on a number of assumptions or reflect stated intended behavior (as opposed to actual behavior) only. On the other hand, ex-post research is confronted with identification problems, i.e., the difficulty to disentangle the causal effects of inheritance taxation from other relevant determinants of behavior (Goupille-Lebret and Infante, 2018) related to, e.g., wealth formation or migration decisions.

The scarcity of empirical work investigating the impact of inheritance taxation is rooted in various methodological challenges. First of all, there are the abovementioned identification issues as well as a lack of microdata (Goupille-Lebret and Infante, 2018). Particularly the availability of data on wealth transfers is limited (Glogowsky, 2021). Moreover, changes in existing inheritance tax provisions that can be exploited for empirical research are rather rare (Kopczuk, 2013b, 2017). A general difficulty is the timing of the impact of inheritance taxation, as it generally affects decisions with a longer-term planning horizon and impacts, respectively (e.g., savings decisions, portfolio shifts, or inter vivos transfers). A further, related question is which inheritance/estate tax rates at what point in time and in what time period, respectively, are the relevant ones to influence behavior: also considering the often complex inheritance tax schedules with their many differentiations regarding the relationship between donor and donee, the size of inheritances, in some federal countries also the co-existence of federal and state bequest taxes (Page, 2003), etc. Also, the adequate consideration of tax exemptions is a challenge. It is also worth noting that only few analyses explicitly include donors' bequest motives (Niimi, 2019), as these are difficult to observe and vary across donors. Finally, it is plausible to assume that behavioral responses are stronger for the very wealthy, which, however, are missing or under-represented in certain databases, and particularly so in survey data (Poterba, 2001).

Finally, it is worth noting that the existing empirical research is limited to a rather small number of countries. Table 2 provides an overview of the number of studies surveyed along the five impact dimensions and the countries studied. Altogether, 49 studies are reviewed, whereby 30 studies focus on the United States, 18 on 8 European countries, 2 on Australia, and 1 on Japan¹¹.

This makes for only 11 countries altogether whose inheritance taxation has been studied so far – out of 37 European (OECD) countries and non-European OECD countries and further 5 non-OECD G20 countries that have (had) an inheritance tax (see Table 1 and Chapter 2). Cross-country comparative research is completely missing.

¹¹) The sum of the studies exceeds 49, as 3 studies address two impact dimensions each.

Table 2: Overview of studies surveyed on behavioral responses of donors to inheritance taxation

Impact dimension	Number of studies	Countries studied
Wealth accumulation	9	United States (6), France, Italy, Japan ¹⁾
Entrepreneurship and firm development	4	United States (4)
Residential choice	12	United States (7), Australia (2), Spain, Sweden, Switzerland
Tax planning, avoidance, and evasion	12	United States (6), Sweden (3), Germany ¹⁾ (2), United Kingdom
Inter vivos transfers	15	United States (7), Sweden (3), Germany ¹⁾ (2), France, Netherlands, Japan ¹⁾

Source: own compilation. – ¹⁾ These studies address two impact dimensions each, therefore they are included twice in the table.

4.2 Impact of inheritance taxation on wealth accumulation

A first cluster of empirical research addresses the impact of inheritance taxation on wealth accumulation, thus capturing an overall response to inheritance taxes (see Table 3 for an overview). Although potential negative effects of inheritance taxes on wealth accumulation are one of the most prominent arguments against the tax in the public debate, empirical evidence is still limited. Two generations of studies can be distinguished (Glogowsky, 2021).

A first wave exclusively focuses on the United States and therefore on estate taxes and tries to determine, mostly ex post, the direction and size of the influence of estate taxes on wealth accumulation by bequeathers, (taxable) estates, or inheritance tax revenues. They often rely on regression analysis and mostly yield rather modest elasticities.

Chapman et al. (1996) in one of the earliest studies find a significant negative coefficient of United States estate tax revenues during 1958 to 1994 regarding the estate tax rate, indicating an elasticity of estate tax revenues with respect to the marginal estate tax rate of about 2. Holtz-Eakin and Marples (2001) use cross-sectional survey data to identify a negative, but modest correlation between wealth accumulation and marginal state estate tax rates: they estimate an elasticity of wealth accumulation with regard to the estate tax rate of 1.4 and an elasticity of the level of desired bequests with regard to the expected estate tax rate of 0.5. For the period 1951 to 2001, Joulfaian (2006) estimates an elasticity of reported estates with regard to the marginal estate tax rate of 0.1.

Kopczuk and Slemrod (2001), based on United States tax data for selected years in the period 1916 to 1996, show a robust and negative correlation between reported net worth of top estates and estate tax rates. They also find that a marginal estate tax rate over 50% at age 45 reduces reported wealth by 10.5% for the richest 0.5% of the population. This negative association is considerably higher than that of the estate tax rate given in the year of death, thus reflecting a larger influence of the estate tax rate applicable in lifetime than that prevailing at death.

Overall, these early studies for the United States mostly find rather moderate responses of wealth accumulation and reported wealth and estates, respectively, to the taxation of

inheritances. A review of the results of these early studies by Kopczuk (2017) yields elasticities of estates with regard to net-of-tax rates between 0.1 and 0.2.

However, there are several caveats. The study by Holtz-Eakin and Marples (2001) explores the effect of the estate tax using real wealth survey data. However, the very wealthy who are most affected by the tax and whose responses can be expected to be more pronounced are not included in the study. Moreover, there is the question which variables adequately capture exogenous changes in the tax rate (Kopczuk and Slemrod, 2001). Another issue is that only those analyses that use wealth survey data (as, e.g., the study by Holtz-Eakin and Marples, 2001) are able to identify effects on actual wealth, while those of the earlier studies that use tax data are not able to discern real and accounting/avoidance effects (Kopczuk and Slemrod, 2001). Most importantly, these earlier studies have been heavily criticized for methodological reasons (see, e.g., Kopczuk, 2017).

A second wave starting in the mid-2000s benefits from better data and methods which allow a more differentiated investigation of wealth accumulation responses based on micro-econometric methods. This more recent research also widens the regional scope and analyses inheritance taxation in a number of OECD countries besides the United States.

Focusing on real responses, Niimi (2019), based on survey data, studies the consequences of the reduction of the basic deduction within the Japanese inheritance tax in the year 2013. Only relatively few households intend to decrease their wealth accumulation due to the tax change and increase their consumption instead. The author explains this by missing or only weak bequest motives.

For Italy, Jappelli et al. (2010), also using survey data and a difference-in-differences approach, find that the abolishment of bequest taxation between 1999 and 2001 leads to an increased probability of making real wealth transfers by 2 percentage points and square meters transferred by 2.5 to 7 percentage points. The authors find a semi-elasticity of the transferred square meters of around 4%.

4.3 Impact of inheritance taxation on entrepreneurship and firm development

A related and also often-debated real response with possible implications for the revenue potential of inheritance taxes is their effect on entrepreneurship and the development of firms in bequeathers' lifetime. Empirical research studying the relationship between inheritance taxation and entrepreneurship focuses mainly on the impact of actual inheritance tax payments on firm prosperity and survival after the death of decedents (e.g., Brunetti, 2006; Pérez-González, 2006; Grossmann and Strulik, 2010) and on entrepreneurship on the side of heirs (e.g., Garbinti and Goupille-Lebret, 2018; Bauer et al., 2018). Studies on bequeathers' decisions prior to the transfer of firms, however, are scant and focus exclusively on the United States; with ex-post evidence almost completely missing (see Table 4 for an overview).

Table 3: Inheritance taxation and wealth accumulation

Author(s)	Country	Time Period	Details	Method (data)	Key findings
Chapman et al. (1996)	US	1958-1994	Federal estate tax Ex-post	Regression analysis (time series data)	Elasticity of estate tax revenues w.r.t. to marginal estate tax rate 2
Laitner (2000)	US	1995	Federal estate tax Ex-ante	Intergenerational general equilibrium simulation model (survey data)	Repeal of estate tax: - Altruistic bequest motive: capital stock does not change - non-altruistic donors: savings increase - Elasticity of bequests w.r.t. net-of-tax rate 0.3
Holtz-Eakin and Marples (2001)	US	1992	Federal and state estate taxes Ex-post Ex-ante	-Regression analysis (survey data) -Simulation analysis (survey data)	- Elasticity of wealth accumulation w.r.t. estate tax rate 1.4 - Elasticity of level of desired bequests w.r.t. expected estate tax rate 0.5
Kopczuk and Slemrod (2001)	US	1916-1996	Federal estate tax Ex-post	- Regression analysis (tax data, time series data) - Pooled cross-sectional analysis (tax data)	- Elasticity of reported bequests w.r.t. marginal estate tax rate 0.4 to 0.7 - Marginal tax rate over 50% at age of 45 reduces reported wealth by 10.5% (elasticity of reported wealth w.r.t. net-of-tax rate 0.16)
Joulfaian (2006)	US	1951-2001	Federal estate tax Ex-post	Regression analysis (tax data)	Elasticity of taxable estates w.r.t. marginal estate tax 0.1
Cagetti and De Nardi (2009)	US	1989-1995	Federal estate tax Ex-ante	Quantitative general equilibrium model (survey data)	Abolition of estate tax increases total capital accumulation by 0.78%
Kopczuk (2017)	US	n.a.	Estate taxes Ex-post	Review of several early studies for the US	Elasticity of estates w.r.t. net-of-tax rates between 0.1 and 0.2
Jappelli et al. (2010)	Italy	1993-2006	Estate, inheritance and gift tax Ex-post	- Difference-in-differences (survey data)	- Repeal of inheritance tax increases probability of making real estate wealth transfers by 2 percentage points and square meter transferred between 2.5 and 7 percentage points - semi-elasticity of square meters transferred of 4%
Goupille-Lebret and Infante (2018)	France	2003-2013	Inheritance tax Ex-post	- Bunching (longitudinal life insurance data, tax data) - Difference-in-differences (longitudinal life insurance data, tax data)	- Elasticity of life insurance contributions w.r.t. net-of-tax rate 0.1 in the medium run - Elasticity of life insurance contributions w.r.t. net-of-tax rate 0.36 in the medium, 0.23 in the long run
Niimi (2019)	Japan	2013	Inheritance tax Ex-ante	Regression analysis (survey data)	Only few households intend to decrease wealth accumulation due to inheritance tax increase

Source: own compilation.

Table 4: Inheritance taxation and entrepreneurship and firm development

Author(s)	Country	Time Period	Details	Method (data)	Key findings
Astrachan and Tutterow (1996)	United States	1995	Estate tax Ex-ante	Survey (survey data)	Expected limited business growth in 60% of firms due to estate taxation
Holtz-Eakin (1999)	United States	1999	Estate tax Ex-post Ex-ante	 - Regression analysis (survey data) - Regression analysis (survey data)	Less past employment growth in firms whose owners would be subject to estate tax Less future employment growth in firms whose owners would be subject to estate tax
Cagetti and De Nardi (2009)	United States	1989-1995	Estate tax Ex-ante	Quantitative general equilibrium model (survey data)	Estate tax influences saving and investment decision of larger firms, not of smaller ones
Bruce and Mohsin (2006)	United States	1950-1999	Federal estate tax Ex-post	Regression analysis (tax data)	Negligible influence of tax exemption for small businesses and farmers on self-employment

Source: own compilation.

4.4 Impact of inheritance taxation on residential choice

Perret (2021) in her recent overview concludes that a lot of evidence on the impact of wealth taxation on residential choice and migration is anecdotal; this also holds true for the respective impact of inheritance taxes. Solid empirical research on the impact of wealth taxes on mobility is rather young, starting in the beginning of the 1990s, and is still rather scarce (Kleven et al., 2020). Existing empirical evidence almost exclusively refers to intra-national migration in federal states taxing inheritances on the regional level (see Table 5 for an overview), again with a clear focus on the United States. The object of these studies are certain socio-demographic groups (mostly the elderly, sometimes also the very wealthy) rather than the general population (Kleven et al., 2020).

A number of relevant contributions stem from the fiscal federalism literature and the literature addressing determinants of the mobility of elderly persons. Meanwhile, an extensive body of literature examining the effects of taxation and public policies on (particularly) elderly inter-state migration has emerged (Önder and Schlunk, 2015). Only a small part of this literature, however, addresses inheritance taxation and tax-induced mobility of the very rich, respectively (Moretti and Wilson, 2023).

A few earlier studies for the United States have addressed this question based on survey data. A survey among business owners by Astrachan and Tutterow (1996) shows that a majority of 60% expects estate taxes to dampen the growth of their business and of the number of their employees, which could be explained by the fear to exceed the estate tax exemption threshold and to become liable for taxation. Schmalbeck (2001), however, considers some results of this survey as internally inconsistent and not very credible.

Holtz-Eakin (1999) gauging from income tax elasticities shows a negative influence of estate tax rates on employment growth as well as business investment. Moreover, based on regression analysis using the data generated by a mail survey among business owners in Upstate New York in 1999, the author finds that an increasing probability to be subject to estate taxes dampened employment growth in the preceding five years. Another regression analysis based on the survey data reveals a large negative correlation between future liability for the estate tax and planned job creation in the future. It cannot be determined, however, whether there is a causal relationship. Repetti (1999) criticizes Holtz-Eakin's results as over-estimated for two reasons. First, proprietors' responses to estate taxation are estimated based on income tax elasticities, which he considers as hardly comparable to estate tax elasticities. Second, as argued also by Gale and Slemrod (2001), Holtz-Eakin's analysis does not consider the owner's age, which may matter insofar as older owners may just be wealthier and therefore value more leisure, and they may also more hesitant to pursue business expansion plans. Gale and Slemrod (2001) highlight further critical issues generally associated with a survey-based approach. First, surveys capture business owners' stated behavior or intentions only and may therefore not adequately reflect their actual responses. Moreover, there may be further issues as a lack of representativity or selection bias, and also the problem that it is not possible to control for other factors that may influence entrepreneurship. Not least, it is questionable whether business owners are well informed on the value of their businesses on the one hand and the relevant design

features of inheritance taxation (e.g., tax exemptions, valuation rules, etc.) and thus their potential tax liability on the other hand.

The only ex-post analysis (besides that of Holtz-Eakin (1999)) is provided by Bruce and Mohsin (2006) who find a negligible influence of a tax exemption offered within the federal estate tax for small businesses and farmers on self-employment rates.

It can be assumed that, similar to their impact on wealth accumulation, also the effect of inheritance taxes on entrepreneurship and firms' prosperity differs according to the bequest motive (Gale and Perozek, 2001). Empirical research on this aspect is still missing, however. It also appears plausible that the influence of inheritance taxation depends on firm size. Using a quantitative general equilibrium model, Cagetti and De Nardi (2009) find that the United States estate tax influences saving and investment decisions of larger firms, while leaving the respective decisions of small firms unchanged.

Altogether, the relationship between inheritance taxation and firm performance and entrepreneurship, respectively, is hardly explored, and there is particularly a lack of ex-post evidence. The methodological foundations of the few older ex-ante studies appear to be rather weak, which casts doubt on their results.

The relevant research exclusively consists of ex-post analyses. Inter-state migration research is mostly based on aggregate inter-state migration data and uses two different methodological approaches (Önder and Schlunk, 2015): regression analysis based on ratios of in- and out-migrants to the population of a state; and gravity models of migration based on bilateral flow data of in- and out-migrants. This research uses census data and administrative tax data (tax rates, tax exemptions, tax revenues as well as data on tax filing), respectively.

The first two empirical studies addressing mobility induced by the repeal of bequest taxes focus on Australia. Hugo (1983), based on 1976 and 1981 census data, finds that after Queensland's elimination of its estate tax in 1976, it experienced in-migration particularly of elder persons in the following five years, whereas out-migration from the other five Australian states occurred. This finding is confirmed by a regression analysis conducted by Grossman (1990) for the period 1972 to 1985. The author detects a moderate inflow particularly of older people to Queensland in the three years after the elimination of the estate tax (leading to an on average 15% higher population growth), while on average population growth was 3% lower in the remaining Australian states.

Table 5: Inheritance taxation and residential choice

Author(s)	Country	Time Period	Details	Method (data)	Key findings
Hugo (1983)	Australia	1977-1981	State estate taxes Ex-post	n.a. (census data)	-In-migration particularly of older persons to Queensland five years after repeal of estate tax - out-migration from other states
Grossman (1990)	Australia	1972-1985	State estate taxes Ex-post	Regression analysis (census data, tax data)	-Significant positive effect of repeal of estate tax on in-migration to Queensland three years after repeal of estate tax in 1976 particularly of older persons - significant effect on out-migration from other states
Brülhart and Parchet (2014)	Switzerland	1973-2008	Cantonal inheritance taxes Ex-post	Regression analysis (tax data)	Significant, but small effect of cross-cantonal inheritance tax rate differences on location decisions of very wealthy retired taxpayers
López-Laborda and Rodrigo (2022)	Spain	2006-2012	Autonomous communities inheritance taxes Ex-post	Regression analysis (tax data)	Significant, but small effect of cross-autonomous community inheritance tax rate differences on residential choice of top 1% in income distribution
Clark and Hunter (1992)	US	1970-1980	State inheritance and estate taxes Ex-post	Regression analysis (tax data)	Significant negative effect of state-level inheritance and estate taxes on elderly in-migration
Voss et al. (1988)	US	1975-1980	State inheritance and estate taxes Ex-post	Regression analysis (census data)	Significant negative effect of state-level inheritance and estate taxes on elderly in-migration
Conway and Houtenville (2001)	US	1985	State and local estate taxes Ex-post	Gravity model of migration (census data, tax data)	Positive effect of low estate taxes on elderly in-migration
Bakija and Slemrod (2004)	US	1965-1998	State estate taxes Ex-post	Regression analysis (tax data)	High estate taxes lead to relocation of elderly to low tax states, moderate effect
Conway and Rork (2006)	US	1970, 1980, 1990, 2000	State inheritance and estate taxes Ex-post	Regression analysis, difference-in-differences (census data, tax data)	-Significant negative effect of state inheritance and estate taxes on elderly in-migration based on cross-sectional data - No significant effect of state inheritance and estate taxes on elderly in-migration based on panel data
Author(s)	Country	Time Period	Details	Method (data)	Key findings
Önder and Schlunk (2015)	US	1995-2000	State inheritance taxes Ex-post	Gravity model of migration (census data)	Significant positive effect of lack of incremental state inheritance taxes on elderly in-migration
Moretti and Wilson (2023)	US	1982-2017	State estate taxes Ex-post	Difference-in-differences (rich list data, tax data)	-Decrease of number of Forbes 400 richest Americans by 35% in estate tax states compared to non-estate tax states – implied semi-elasticity -0,33 - significant increase of billionaires' tax sensitivity with age - On average, introducing estate taxation associated with positive cost-benefit ratio (additional estate tax revenues versus forgone income tax revenues)
Lindkvist (1990)	Sweden	1975-1984	Inheritance tax Ex-post	Interviews	Swedish taxation, including inheritance taxation, major driver of decision to migrate abroad for most respondents

Source: own compilation.

For the United States, Clark and Hunter (1992) as well as Voss et al. (1988) find a significant negative effect of high state-level inheritance and estate taxes on elderly in-migration in the 1970s. These results correspond to those obtained by Conway and Houtenville (2001) about one decade later, according to which low state-level inheritance and estate taxes are positively related to elderly in-state migration, and by Önder and Schlunk (2015) who, applying a cross-sectional analysis based on census data, also find a significant positive effect of the lack of incremental state inheritance taxes on elderly in-state migration in the 1990s. Similarly, Bakija and Slemrod (2004) show that from 1965 to 1998, high state estate taxes result in the relocation of elderly persons to states in the United States with lower taxes, albeit to a very modest extent only.

In contrast, Conway and Rork (Conway and Rork, 2006), based on a difference-in-differences approach and using migration data from four different censuses (1970, 1980, 1990, 2000) spanning three decades cannot find a significant effect of state estate taxes in the United States on migration decisions of the elderly overall. The authors argue that the finding by Bakija and Slemrod (2004) of some effect of estate taxation on elderly migration primarily can be explained by the migration rates of very wealthy elderly persons. This reasoning is supported by the study by Moretti and Wilson (2023), who find significant high mobility responses of billionaires and wealthy taxpayers in general responding to differences in estate tax incentives in states in the United States, which increases with age, pointing to higher tax sensitivity of the very wealthy elderly. This finding is also somewhat in line with the results of the study by Brülhart and Parchet (2014) for Swiss cantons covering the period 1973 to 2008. The authors show that variations in inter-cantonal inheritance taxes have no statistically significant effects on location decisions with the exception of very wealthy elderly taxpayers, whereby this effect is very small. This finding cannot be confirmed by López-Laborda and Rodrigo (2022) who show for Spanish autonomous communities that elderly taxpayer responses to inheritance tax differences overall do not differ much from those of the very wealthy elderly.

The earlier studies analyse the relationship between migration and a single tax variable or only a few variables capturing public policy and other determinants affecting migration (e.g., Cebula, 1990), thus possibly suffering from an omitted variable bias (Conway and Rork, 2006; Önder and Schlunk, 2015). This problem is avoided or at least mitigated by newer studies considering a broader array of public policy and other variables determining migration decisions, as the analyses by Clark and Hunter (1992), Conway and Houtenville (2001), Conway and Rork (2006), or Önder and Schlunk (2015) do. The studies considering several migration determinants often show that other aspects, e.g., climate, crime, cost of living, or public spending on amenities like health care and hospitals, influence migration decisions to a larger extent than tax policy in general and inheritance taxation in particular (see, e.g., Voss et al., 1988; Conway and Rork, 2006). In their study for Spanish autonomous regions, López-Laborda and Rodrigo (2022) find that the effects of inheritance tax differentials on the decision of the top 1% in the income distribution to change residence are still significant but lower if regional attractiveness and opportunity factors (e.g., housing prices or public spending on education, healthcare, and culture) are considered.

One interesting issue in this context is the choice of adequate tax variables, as it is less straightforward to measure tax rates on wealth compared to other tax bases, as for example personal income (Kleven et al., 2020). In their analysis studying the effects of local and state estate taxes on elderly migration between states in the United States, Conway and Houtenville (2001) use three different tax variables: first, the shares of total state and local expenditures financed by various kinds of taxes, *inter alia* estate taxes, as an indicator of the relative importance of individual tax categories in the overall tax system; second, tax rates to capture the individual tax burden; and third, a measure of a state's tax efforts (a state's tax collections in relation to its tax capacity) to capture the overall burden of the tax relative to the tax base in a given state in comparison to other states. An influence on in-migration can be identified only when the first tax variable, i.e., the shares of total state and local expenditures financed by different kinds of taxes, is used. The authors explain this finding *inter alia* by the lack of variation between states regarding tax rates. Other studies construct average inheritance tax rates, for example Brülhart and Parchet (2014) who derive an average inheritance tax rate as a weighted average of effective inheritance tax rates for different bequest sizes and categories of heirs.

Another issue pointed out by Conway and Rork (2006) is that those of the earlier studies which use cross-sectional data do not capture the relationship between (elderly) mobility and policy changes, thus raising the question of the direction of causality. The authors' own study or the analysis by Bakija and Slemrod (2004), which use time series data spanning several decades, yield more meaningful results in that respect. These more recent studies detect no or only very modest effects of inheritance taxation on mobility.

Not least, there is the question which migration data to use. Most of the studies reviewed above exploit aggregate or individual-level migration data, whereby aggregate migration data allow to study longer time periods and are more representative than individual-level data which cover a rather small numbers of movers only (Conway and Rork, 2006) and are confronted with considerable computational complexity (Conway and Rork, 2012). One notable exception is the study by Bakija and Slemrod (2004) which instead of migration data is based on federal estate tax return filings. Changes in their number in a given state are interpreted as the result of migration. It should be noted, however, that using the number of federal estate tax return filings as an indicator for migration is associated with limitations, as these may be influenced also by other factors (Conway and Rork, 2006).

It should also be noted that countries differ with regard to size, population density, the number of subnational entities and the degree of their fiscal autonomy as well as the intragovernmental distribution of expenditures and revenues and the design of inheritance taxation in the federal context. The results of these country-specific case studies therefore cannot be transferred to other countries and are not comparable across countries without further qualification (Grossman, 1990).

Altogether, though the results of empirical studies vary somewhat due to differences in methodological approaches and data used, empirical evidence suggests that intra-national migration decisions are somewhat influenced by inheritance taxation, and particularly so for the elderly and more wealthy population. Moreover, effects may be asymmetric insofar as in-migration is more sensitive with regard to estate taxation than out-migration, as found, e.g., by Voss

et al. (1988) and Conway and Houtenville (2001). Another asymmetry is suggested by the Brülhart and Parchet (2014) study for Swiss cantons, namely that inheritance tax increases may cause larger responses than inheritance tax decreases. Altogether, however, migration responses appear to be rather moderate.

One interesting finding of this survey is a general neglect of the revenue implications of intra-national mobility. One notable exception is the Brülhart and Parchet (2014) study which suggests that reducing inheritance tax rates in Swiss cantons is associated with corresponding inheritance tax revenue losses even up to 20 years later. This result confirms that by Bakija and Slemrod (2004) who find that revenue losses caused by estate tax reductions in a given region are only partly compensated by the tax-induced inflow of richer taxpayers. Moretti and Wilson (2023), assuming a broader perspective, compare the direct costs (in terms of forgone income tax revenues) and benefits (in terms of additional estate tax revenues) of levying an estate tax on billionaires for states in the United States. They estimate that almost all non-estate tax states could expect net revenue gains by introducing estate taxes for billionaires and also for the “mere wealthy”, respectively. Other indirect revenue effects of tax-induced mobility (e.g., reduced corporate income tax receipts due to the relocation of investment and businesses) are completely neglected in the literature.

There is almost no empirical research on the influence of inheritance taxation on international migration decisions (Jakobsen et al., 2020)¹². Advani et al. (2022), exploiting a large tax reform in the United Kingdom which made formerly untaxed offshore investment returns liable for taxation, find limited cross-border migration elasticities by the super-rich, ranging between 0.02 and 0.5. Considering the higher costs of moving internationally, and the much more limited possibilities to misreport one's residence in a cross-border context¹³, it seems plausible to assume that the influence of international inheritance tax differentials on migration decisions is even smaller than in the national context. This assumption is contested by a study by Lindkvist (1990) who conducted interviews with people emigrating from Sweden between 1975 and 1984, to find that Swedish taxes, including inheritance taxes, were an important driver of most respondents' migration decisions. However, Sweden may be a special case as the general tax level, and also inheritance taxes in particular, were rather high at that time¹⁴.

4.5 Tax planning, avoidance, and evasion

Tax planning, avoidance, and/or evasion reactions, respectively, have been drawing particular interest of empirical researchers, due to their potential to erode the revenue potential of inheritance taxation (see Table 6 for an overview). Empirical studies employ various methodological approaches and data bases to identify and quantify tax planning and avoidance.

¹²) Existing empirical evidence addresses the relationship between international migration taxes on personal income, net wealth, and businesses (see Kleven et al., 2020, for a recent overview of the relevant literature).

¹³) In their study researching interregional migration responses to the Spanish wealth tax, Agrawal et al. (2020) find rather sizeable responses, which, however, appear to date back to a considerable extent to misreporting.

¹⁴) See Henrekson and Waldenström (2016) for a detailed historical analysis of Swedish inheritance taxation.

The earliest study systematically attempting to quantify the extent of the avoidance of taxes on bequests was conducted by Tait (1967) for the United Kingdom. The author applies 1960 estate tax rates to the distribution of taxable estates in 1912. The estimated revenues are related to total wealth held in 1912 and compared to actual 1960 estate tax revenues related to total 1960 wealth. Fictitious 1912 revenues were 1.3 to 1.5 times higher than actual 1960 revenues, from which Tait (1967) derives an estimate for tax avoidance of 34% to 50% of the potential tax base. As Kopczuk and Slemrod (2001) emphasize, however, total wealth estimates are distorted by tax avoidance themselves as they are based on estate tax returns.

Three decades later, several studies for the United States attempt at detecting tax avoidance by comparing the actual tax base according to tax records to an estimate of the “correct” tax base determined based on survey data and mortality rates, with results lying within a broad range.

Wolff (1996) arrives at a considerable extent of tax avoidance for 1993, with the actual tax base representing only one fourth of the estimated tax base.

This result cannot be confirmed for the year 1995 by Poterba (2000) who, based on a similar approach but on different assumptions, data, and tax exemptions, finds a deviation between actual and estimated tax base of only about 10%. Revisiting the Wolff-Poterba approach, Eller et al. (2001) determine a gap between 13.6% and 70.3% between the simulated and the actual aggregate tax liability, depending on assumptions, for the year 1992.

Also, a recent study by Ohlsson et al. (2020) for Sweden finds that the tax-assessed inheritance tax base is only a small fraction of the macro-implemented tax base, which the authors *inter alia* explain by tax evasion.

Eller et al. (2001) point out that such estimations are very sensitive towards the assumptions underlying the estimation approach, particularly with regard to mortality risks. In their study for the United States, the authors use a different approach based on audit data instead. They find that in 60% of audited cases, assessed estate tax increased after the audit, with changes primarily due to the revaluation of assets; a finding which they take as an indication for tax evasion. Eller and Johnson (1999), by comparing pre- and post-audit figures for the year 1992, show that 10% of tax filers do not fully comply with the inheritance tax law, i.e., use (illegal) tax planning strategies. Audit increases pre-audit estate tax liabilities by 5.5%. Calculating the tax gap (i.e., the difference between taxes owed and taxes paid) based on audit data, Erard (1998) estimates that 13% of the potential tax base remain untaxed due to tax evasion. Using audit data on the one hand has the advantage – at least in the United States – that audit coverage is rather high (Gale and Slemrod, 2001). On the other hand, however, audit-based studies are not able to detect legal tax planning activities (Kopczuk, 2010).

Table 6: Inheritance taxation and tax planning, avoidance, and evasion

Author(s)	Country	Time Period	Details	Method (data)	Key findings
Tait (1967)	UK	1912, 1960	Estate tax Ex-post	Comparison of actual and estimated tax revenues (tax data)	Considerable extent of tax avoidance: 34% to 50% of potential tax base
Wolff (1996)	US	1993	Estate tax Ex-post	Comparison of actual and estimated tax base (tax data, survey data)	Considerable extent of tax avoidance: actual tax collections one fourth of estimated tax collections
Poterba (2000)	US	1995	Estate tax Ex-post	Comparison of actual and estimated tax base (tax data, survey data)	Close correspondence of estimated and actual tax collections
Ohlsson et al. (2020)	Sweden	1810-2016	Inheritance tax Ex-post	Comparison of macro-based and tax-based estimated tax base (tax data, macro data)	Considerable extent of tax avoidance: tax-assessed tax base small fraction of macro-implemented tax base
Erard (1998)	US	1992	Estate tax Ex-post	Regression analysis (audit data)	13% evasion of potential tax base (tax gap)
Eller and Johnson (1999)	US	1992	Estate tax Ex-post	Analysis of audits of estate tax assessments (audit data)	10% of tax filers use tax planning strategies Audit increased pre-audit tax liabilities by 5.5%
Eller et al. (2001)	US	1992	Estate tax Ex-post	-Regression analysis of audits of estate tax assessments (audit data) - Comparison of actual and estimated tax base (tax data, survey data)	-In 60% of audited cases assessed estate increased after audit - gap between 13.6% and 70.3% between simulated and actual aggregate tax liability
Kopczuk (2007)	US	1977	Estate tax Ex-post	Regression analysis (tax data, survey data)	Reported wealth decreases by 5%-10% for short-term and by 15%-20% for longer-term fatally ill bequeathers
Escobar (2017)	Sweden	2004	Inheritance tax Ex-post	Regression discontinuity approach (registry data)	-Reported estates 17% lower and share of estates completely evading tax 26% larger prior to inheritance tax repeal - Reduction of inheritance tax revenues up to 55%
Erixon and Escobar (2020)	Sweden	2002-2004	Inheritance tax Ex-post	Difference-in-differences (administrative data, tax data)	No evidence for significant tax planning for fatally ill bequeathers Positive correlation between terminal illness and wealth accumulation/tax payments for spouses following repeal of inheritance tax
Sommer (2017)	Germany	2007-2011	Inheritance and gift tax	Bunching (tax data)	Elasticity of bequests 0.02 at the highest
Glogowsky (2021)	Germany	2002, 2009-2017	Inheritance tax Ex-post	Bunching (tax data)	Short-run net-of-tax elasticities for taxable gifts below 0.1, for inheritances even smaller for top 30%

Source: own compilation.

Various studies address the issue of tax planning from a different angle, comparing the effect of estate taxes on reported wealth for bequeathers diagnosed with a fatal disease and for bequeathers dying instantaneously. Kopczuk (2007) shows that reported wealth of wealthy decedents decreases by 5% to 10% for short-term and by 15% to 20% for longer-term fatally ill bequeathers compared to those dying more suddenly. The size of the effect thus increases with the duration of the remaining life expectancy, which the author interprets as a result of “deathbed” tax planning by wealthy individuals. Moreover, the results suggest that tax planning is used to a significant extent only when a terminal illness reminds bequeathers to apply tax planning strategies, while healthy decedents want to hold on to their wealth during lifetime (Schmalbeck, 2001).

Erixson and Escobar (2020) argue that the reduction of wealth in the group of fatally ill bequeathers may also result from real losses in wealth due to the illness. In contrast to Kopczuk (2007), the authors identify a positive correlation between terminal illness and wealth accumulation as well as tax payments, thus contradicting Kopczuk's (2007) finding of significant deathbed tax planning considerably reducing tax liabilities. Their results point to a very moderate use of some tax planning tools only, even by the very wealthy, which does not suffice to decrease average tax payments. One limitation of this study, however, is that it only includes spouses, as tax planning activities may be more prevalent regarding more distant heirs.

Also building on the study by Kopczuk (2007), Suari-Andreu et al. (2019), based on administrative data for Netherlands for the period 2006 to 2013, show that non-sudden deaths reduce wealth at the time of death compared to sudden deaths, with the effect being strongest for single individuals dying of cancer. The authors interpret this finding as being the result of estate planning induced by the existence of a bequest motive¹⁵. These results are corroborated by the recent study by Kvaerner (2020) who finds similar evidence for tax planning by terminally ill bequeathers for Norway.

Using a bunching approach, Glogowsky (2021) examines various responses to the German inheritance and gift tax in the top 30%. Altogether, responses are rather moderate. Tax planning, i.e., testament planning, by testators is the dominating response, with an extent comparable to the reaction of inter vivos gifts (see section 4.6. Similar to the results of some of the studies reported above, tax planning (in the form of testament planning) is undertaken mostly shortly before death, which is consistent with a death-denial attitude and deathbed planning. Also, bequeathers react more strongly to taxes with regard to inheritances intended for close relatives. Altogether the impact on tax revenue collection is modest, with short-run net-of-tax elasticities of taxable wealth transfers below 0.1. These elasticities probably do not capture real responses in terms of changes in wealth accumulation, but rather tax evasion and avoidance on the side of donors, whereas the author does not find evidence for illegal underreporting of inheritances by heirs. These results confirm the findings by Sommer (2017) of only a small response to the German inheritance tax in the form of tax planning for inheritances, which is almost exclusively limited to donors (rather than recipients) of wealth transfers.

¹⁵ For bequest motives and their distribution in the US see Kopczuk and Lupton (2007).

The study by Escobar (2017) yields larger tax planning responses for the Swedish inheritance tax with regard to bequests of spouses. The author finds a considerable extent of (illegal) underreporting of taxable bequests prior to the abolishment of the tax for spouses, regarding the size as well as the number of estates liable for taxation. According to his estimates, inheritance tax revenues were reduced by up to 55% as a consequence of underreporting. Investigating the quasi-repeal of the Catalan inheritance tax for close relatives, Mas Montserrat (2019) finds that the tax reform mainly impacted reporting of taxable wealth transfers, rather than resulting in real responses.

To sum up, most of the still few empirical analyses suggest that responses of taxable wealth transfers to inheritance taxation are negative, but rather small. Moreover, tax planning/accounting responses appear to be more important than real responses. Inheritance taxes therefore should only moderately impact wealth accumulation, so that in the long run the taxable base should be rather stable.

The comparatively larger, but according to the majority of studies overall modest accounting/avoidance responses can be limited by a design of inheritance taxes that does not offer loopholes which can be used for tax planning strategies. The effectiveness of tax enforcement measures is somewhat disputed in the literature (Scheuer and Slemrod, 2021). This is also true for the question whether limiting options for tax avoidance may lead to an increase of real responses; unfortunately, there is very little empirical research on this issue, and the few existing studies do not research inheritance taxation specifically. Of interest is one recent study for Norway by Alstadsæter et al. (2022), which cannot detect substitution effects between legal tax avoidance and illegal tax evasion for wealthy taxpayers.

Research on the influence of inheritance taxation on illegal tax evasion through the use of tax havens is practically completely missing. There is increasing empirical evidence that a considerable amount of offshore wealth is hidden in tax havens (see, e.g., Zucman, 2015; Alstadsæter et al., 2018; Bastani and Waldenström, 2020). Roine and Waldenström (2015) estimate tax-induced capital flight out of Sweden during the 1990s and 2000s at almost one fifth of one year's national income. However, there is practically no empirical research directly exploring the relationship between inheritance taxation and offshore transfers of wealth. Based on leaked data from offshore financial institutions and tax amnesty data, Alstadsæter et al. (2019) show for Scandinavia that particularly the very wealthy tend to hide their wealth offshore and thus reduce their income and wealth tax liability by about 25% through tax evasion via transferring wealth offshore, from which it may be inferred that such offshoring practices of the very wealthy could be relevant also for inheritance taxation (OECD, 2021). Practically nothing is therefore known about the composition, magnitude and distribution of wealth transferred to offshore tax havens to be hidden from inheritance taxation.

4.6 Impact of an inheritance tax on inter vivos transfers

Inter vivos transfers, as one specific tax planning instrument to avoid inheritance taxes, have been one strong focus of empirical work on behavioral effects of inheritance taxation since the beginning of the 2000s (see Table 7 for an overview). Also in this regard, research for the

United States (which can make use of inter-state variations of inheritance and gift taxation) has been pioneering.

The vast majority of analyses represent ex-post studies addressing the impact of past inheritance and gift tax changes. Hereby it should be noted that cross-sectional data do not allow to distinguish between transitory and permanent responses (Joulfaian, 2004). In addition, the impact of taxes on lifetime transfers can only be identified using time series data.

One of the first studies researching tax responsiveness of inter vivos transfers is authored by Joulfaian (2004) who shows that changes in federal estate and gift tax rates in the United States impact the timing of lifetime wealth transfers. Particularly in the short run, gifts by the wealthy are very sensitive to variations in gift tax rates.

The results of the study suggest that the timing of gifts is motivated by the intention to minimize tax payments. In another study focusing on the very wealthy Joulfaian (2004) finds that the design of taxes levied on gifts and estates significantly influences the allocation of wealth transfers to gifts versus bequests: the elimination of gift and estate taxes in states in the United States would reduce gifts by over 64%. Moreover, the closer estate and gift tax rates, the lower the probability of making gifts. These findings are corroborated by Bernheim et al. (2004), who, exploiting time series as well as cross-sectional variation in state estate and gift taxes, show that the relationship between estate and gift tax rates influences the size and timing of gifts. The authors infer a systematic bequest motive for very wealthy households from their results.

Two studies for Sweden identify considerable tax responsiveness of inter vivos transfers. A strong increase of inter vivos transfers before the reform of the inheritance and gift tax in 1948 is found by Ohlsson (2011). Escobar et al. (2019), studying a one-off tax-favoured wealth transfer from parents to children based on a bunching approach, derive an implied tax base elasticity of 1.5. Substantial Frisch elasticities between 1 (for those transferring gifts of € 27,000) and 9 (for those giving gifts around € 125,000) are also estimated by Sturrock et al. (2022) for the Netherlands based on a bunching approach using data on taxable gifts, implying that responsiveness to temporary tax incentives for making gifts even for moderately wealthy individuals is large as death is approaching.

Table 7: Inheritance taxation and inter vivos transfers

Author(s)	Country	Time Period	Details	Method (data)	Key findings
McGarry (2001)	US	1992, 1993	Federal estate and gift taxes Ex-post	Regression analysis (survey data)	Maximizing tax-free giving would reduce the actual aggregate tax bill of the elderly by 65%
Poterba (2001)	US	1995	Federal estate and gift taxes Ex-post	Regression analysis (survey data)	45% of households use option of tax-free inter vivos transfers
Page (2003)	US	1983, 1986	State estate and gift taxes Ex-post	Regression analysis (survey data, tax data)	1 percentage point increase in marginal bequest tax rate raises desired gifts by \$ 4,000 over 3 years period
Bernheim et al. (2004)	US	1989, 1992, 1995, 1998, 2001	Federal estate and gift taxes Ex-post	Regression analysis (survey data)	Relative level of estate and gift tax rates influences timing of gifts
Joulfaian and McGarry (2004)	US	1992-2000 1936-1992	Federal estate and gift tax Ex-post	Regression analysis (survey data, tax data)	Lifetime transfers make up for less than 10% of terminal wealth Transitory elasticity of gifts w.r.t. future gift tax 8.4, w.r.t. current gift tax 8.4; permanent elasticity of gifts w.r.t. gift taxation close to zero
Joulfaian (2004)	US	1933-1998	Federal estate and gift taxes Ex-post	Regression analysis (tax data)	Gifts by the wealthy highly responsive to changes in gift tax rates
Joulfaian (2005)	US	1977-1989	Federal and state estate and gift taxes Ex-post Ex-ante	 Regression analysis (tax data) Simulations (tax data)	 Top 2% of population - Reducing difference between estate and gift tax rates decreases probability of making gifts - Elimination of gift and estate taxes may reduce gifts by over 64%
Arrondel and Laferrère (2001)	France	1992	Inheritance tax Ex-post	Regression analysis (administrative data, survey data)	Tax sensitivity of inter vivos transfers larger in wealthy households
Ohlsson (2007)	Sweden	2004	Inheritance tax Ex-post	Regression analysis (tax data)	- Two thirds of eligible heirs use legal tax avoidance opportunity through tax-exempt inter vivos transfers - One fourth of eligible heirs pursue tax minimization
Author(s)	Country	Time Period	Details	Method (data)	Key findings
Ohlsson (2011)	Sweden	1942-1949	Inheritance and gift tax Ex-post	Regression analysis (tax data)	Strong increase of inter vivos transfers before reform of inheritance taxation
Escobar et al. (2019)	Sweden	2002-2004	Inheritance tax Ex-post	Bunching (tax data)	Implied tax base elasticity around 1.5
Sommer (2017)	Germany	2007-2011	Inheritance and gift tax Ex-post	Bunching (tax data)	Elasticity of gifts 0.021 at the highest
Glogowsky (2021)	Germany	2002, 2009-2017	Inheritance and gift tax Ex-post	Bunching (tax data)	short-run elasticity of taxable wealth transfers w.r.t. net-of-tax rate below 0.1
Niimi (2019)	Japan	2013	Inheritance tax Ex-ante	Regression analysis (survey data)	Parents with altruistic bequest motive use inter vivos transfers more than parents with no or weak bequest motive
Sturrock et al. (2022)	Netherlands	2013-2015	Gift and inheritance tax Ex-post	Bunching Difference-in-differences	Frisch elasticity of gifts w.r.t. net-of-tax rate between 9 (for those giving gifts around € 27,000) and 1 (for those giving gifts of around € 125,000)

Source: own compilation.

Several recent studies identify more modest tax-induced responses of inter vivos transfers. According to the study by Glogowsky (2021) for Germany, elasticities of taxable inter vivos gifts are small (below 0.1), as well as the influence on tax revenues. This result confirms several earlier studies for the United States suggesting that the option of inter vivos gifts as a tax planning tool is rather moderately used only. For example, Poterba (2001) finds that only 45% of households in the United States with a net worth four times the federal estate tax threshold use the option of tax-free inter vivos transfers. According to Joulfaian and McGarry (2004), using survey data, the possibilities for tax-free inter-vivos gifts are considerably under-utilized. Based on longitudinal data from gift tax records, the authors find a considerable impact of gift taxes on the timing of gifts, but lifetime transfers from the wealthy are very limited, making up for less of 10% of terminal wealth. McGarry (2001), building on survey data, shows that tax-minimizing giving patterns would reduce the actual aggregate tax liability by 65% for the elderly, indicating considerable under-utilization of tax-free inter vivos transfers which would imply unequal individual transfers to their children. The author explains this limited responsiveness to tax incentives by psychic costs incurred by unequal individual transfers to children. Also, Ohlsson (2007), who studies a one-off inheritance tax exemption for inter vivos transfers (from the children of donors to their own children) in Sweden in 2004, identifies a significant extent of legal tax avoidance: two thirds use this opportunity, whereby the likelihood to do so is negatively correlated to age and positively associated with the amount of taxes that can be avoided. At the same time, only one quarter of eligible heirs pursues tax minimization.

For Japan, Niimi (2019), using survey data, finds that the extent of the reaction of inter vivos transfers to increases in inheritance taxation is dependent on the bequest motive. Parents with an altruistic bequest motive tend to shift taxable wealth to inter vivos transfers to a larger degree compared to parents with no or only a weak bequest motive. This confirms the result of an earlier study by Page (2003) who in his analysis of state bequest taxes in the United States finds that at least a part of bequests are intentional. Using survey data for the years 1983 and 1986, the author's regression analysis shows a much larger effect of variations in state bequest taxation for older households: in this group, a one percentage point increase in the marginal bequest tax rate raises desired gifts by almost \$ 4,000 over a three-year period.

In his analysis of the German inheritance tax, Sommer (2017) finds evidence for tax planning based on inter vivos gifts, whereby the response is altogether moderate only and increases with the closeness of the relationship between bequeather and heir as well as the size of the bequest. The study by Arrondel and Laferrère (2001) for France suggests that tax sensitivity of gifts is considerable, particularly in wealthier households.

Explanations for the limited tax sensitivity of inter vivos transfers found in most empirical analyses offered in the literature include the denial of death by bequeathers (Kopczuk and Slemrod, 2005) and a desire to keep control over their wealth and over their prospective heirs, respectively (Erixson and Escobar, 2020). Kopczuk (2007) mentions an exchange motive as a potential reason; Niimi and Horioka (2019) in their study on Japan suggest a precautionary motive. These findings are consistent with the analysis by Sturrock et al. (2022) studying financial transfers to heirs for the Netherlands. The authors show that – in contrast to couples – tax-responsiveness of single individuals with children in the top half of the wealth distribution increases with closeness

of the bequeather's death. Sturrock et al. (2022) explain this finding by the wish to keep control of wealth and by precautionary motives considering uncertainty regarding future longevity or spending needs as long as death is not imminent.

Altogether, the available empirical evidence confirms the expectation that taxable inter vivos transfers are somewhat sensitive to taxation, which is also taken as evidence for the existence of systematic bequest motives. Tax sensitivity increases with age, wealth level, the closeness of the relationship between donor and donee, the existence of a bequest motive, and the closeness of death. It is also worth noting that the impact of inheritance taxation on inter vivos transfers could be dampened by other taxes, e.g., a tax on unrealized capital gains levied upon the sale of an asset by the recipient, and it decreases with increasing illiquidity of assets (see, e.g., Poterba, 2001, for the United States). At the same time, empirical evidence suggests that although inter vivos transfers are the simplest avoidance strategy when gifts enjoy tax privileges, they appear to be underutilized as a tax planning tool for various reasons, which limits their tax responsiveness accordingly. Particularly rich parents often do not aim at tax minimizing through gifts, as evidence for the United States suggests (e.g., Poterba, 2001; Joulfaian and McGarry, 2004; Bernheim et al., 2004; Joulfaian, 2004 and 2005). Kopczuk (2010) considers these two findings – high tax responsiveness of taxable gifts on the one hand and underutilization of tax planning strategies through inter vivos transfers on the other hand – not necessarily incompatible, as they may be explained through heterogeneous behavior within groups of similar taxpayers based on differences regarding the existence of a bequest motive.

Most studies do not directly compare the responsiveness of inheritances vis-à-vis gifts. Although the results of the research studying the effects of inheritance and gift taxation on inheritances and on inter vivos transfers are not directly comparable, inheritances appear to be less sensitive to taxation than gifts. Glogowsky (2021) corroborates this conclusion by finding a slightly higher elasticity of inter vivos transfers compared to inheritances. The author's explanation is that gifts constitute planned and intentional transfers, which is not always the case for inheritances.

Despite the uncertainty regarding the exact magnitude of tax-responsiveness of inter vivos transfers, the existing evidence allows to draw two conclusions regarding tax revenues. First, moderate elasticities imply moderate effects on tax collection (Glogowsky, 2021). Second, the design of wealth transfer taxes is important to protect revenue collection (Escobar et al., 2019). For the Netherlands, for example, Sturrock et al. (2022) find that tax-free gifts are a main tax planning instrument which likely reduces the tax burden.

4.7 Behavioral responses to inheritance taxation in comparison to wealth taxation

First of all, it is worthwhile to note that – including the older studies – the body of empirical investigations of inheritance taxation is considerably larger compared to wealth taxation. At the same time, empirical research on both options to tax wealth has been flourishing recently. However, there is practically no empirical research directly comparing the behavioral responses to net wealth taxes versus inheritance taxation within a common framework. Therefore, the question of the behavioral impact of wealth versus inheritance taxation can only be addressed by contrasting the results of existing empirical research on the two alternative tax

options – knowing that these due to different methodological approaches, data bases, time periods as well as countries studied are comparable to a limited extent only.

Very generally, recent surveys of literature on behavioral responses to wealth taxation¹⁶ arrive at three conclusions. First, responses of taxable wealth to variations in the wealth tax rate are rather substantial. These responses can be measured in terms of the elasticity of taxable wealth with respect to the net-of-tax rate on wealth, i.e., the percentage decrease in taxable wealth due to a 1 percentage point rise of the wealth tax rate. Elasticities estimated in very recent empirical studies reach up to 43.2 (see Advani and Tarrant, 2021, for a comprehensive overview of recent empirical research). Second, estimates for the elasticity of taxable wealth lie within a rather broad range for methodological reasons, design features, contextual factors, data bases, and due to different time spans and countries as well as socio-demographic groups analysed. Third, (illegal) tax avoidance reactions appear to be more pronounced than real responses (Ring, 2020; Thoresen et al., 2021).

In comparison, regarding wealth accumulation and reported wealth, respectively, inheritance taxation is associated with considerably lower elasticities, which lie within a rather narrow range (see Table 3). Similar to wealth taxation, however, also inheritance taxation appears to cause larger avoidance reactions rather than real responses (Kopczuk, 2010).

Although the results of empirical research on the behavioral effects of wealth taxation on the one hand and inheritance taxation on the other hand are comparable to a limited degree only, also a closer look at the individual behavioral dimensions considered in our survey suggests that inheritance taxation might induce less pronounced reactions than wealth taxation.

For one, the literature surveyed in section 4.4 shows that the impact of inheritance taxation on intra-national migration decisions is moderate altogether. In contrast, the few existing studies for mobility responses caused by a net wealth tax suggest considerable intra-national mobility responses, e.g., Brülhart et al. (2022) for Swiss cantons and Agrawal et al. (2020, 2023) for Spanish regions. This recent evidence suggests that location decisions may be more sensitive to a recurrent net wealth tax relative to an inheritance tax (OECD, 2021). However, these findings may require some qualification, as suggested by the only study I could find that directly compares effects of a wealth versus an inheritance tax: For the top 1% in Spain, López-Laborda and Rodrigo (2022) show that the probability to change residence due to regional net wealth tax differentials decreases with age, while it increases with age for inheritance tax differentials. Regarding migration abroad, empirical analyses are almost non-existent. A recent study by Bach et al. (2020) finds that the French wealth tax led only 1% of retired business owners to migrate in order to avoid the wealth tax that would be levied upon the sale of their businesses. This small percentage corresponds to that observed for other pensioners with similar income levels. Research on cross-border migration decisions related to inheritance taxation is completely missing.

As indicated above, there is increasing evidence of offshore tax evasion by the wealthy; however, there is a lack of empirical evidence on the effect of wealth taxation – be it in the form

¹⁶ See, e.g., Advani and Tarrant (2021) or Scheuer and Slemrod (2021).

of a net wealth tax or of taxes on estates and inheritances – on offshore tax evasion (Advani and Tarrant, 2021). There are a few case studies corroborating the theoretical expectation that wealth taxes cause (illicit) offshore transfers of assets. After the abandonment of all foreign exchange controls in Sweden in 1989, for example, an outflow of large fortunes to tax havens like Switzerland or Luxemburg could be observed, providing one strong motivation for the government to discontinue the net wealth tax in 2007 (Henrekson and Du Rietz, 2014). Pichet (2007) finds a considerable volume of capital flight out of France since the introduction of the French net wealth tax. Whether inheritance and estate taxes may cause similar capital flight reactions has not been investigated empirically to date (Londoño-Veléz and Ávila-Mahecha, 2021).

Overall, the empirical evidence briefly reviewed above suggests that a net wealth tax can be expected to induce larger responses compared to taxes on estates and inheritances which seem to cause rather modest responses only (Advani and Tarrant, 2021; OECD, 2018, 2021). These differences may inter alia be caused by taxpayers' attitudes towards inheritance taxation addressed above, as the denial of death, inertia, or the underestimation of mortality risks, leading to smaller responses to inheritance taxation compared to a net wealth tax. In addition, due to the yearly payment obligations associated with a net wealth tax, it may be more salient for taxpayers than one-off taxes on inheritances, so that a net wealth tax may be associated with higher incentives to avoid the tax¹⁷.

5. Conclusions, recommendations, and research gaps

For policymakers, it is crucial to understand behavioral responses to inheritance taxation as a prerequisite for efficient policy design (Niimi, 2019). Several conclusions can be drawn from this review of empirical studies on inheritance taxation. First, while real responses to inheritance taxation appear to be smaller than avoidance and evasion responses, responses overall seem to be moderate and generally smaller compared to a recurrent net wealth tax. Consequently, such responses can be expected to have a rather moderate impact on tax collection. Kopzcuk (2010) mentions various explanations of the limited tax responsiveness of bequests and bequeathers, respectively, ranging from psychological explanations (e.g., inertia or denial of death) to a lack of understanding or underestimation of mortality risks. A second finding is that tax sensitivity is positively correlated with age as well as closeness and awareness, respectively, of death. In particular, the wealthy respond over-proportionately to inheritance taxation.

Accordingly, several recommendations can be derived. First, policymakers considering to strengthen wealth-based taxation should prefer inheritance taxation over net wealth taxes if they aim at the minimization of (revenue-reducing) behavioral responses. Second, the containment of (illegal) tax avoidance should be a matter of priority for policymakers in order to secure legitimacy of and public support for inheritance taxation¹⁸, but also to ensure that inheritance taxes are an efficient tool to reduce inequality (Sommer, 2017), considering that avoidance

¹⁷ On the other hand, as Scheuer and Slemrod (2021) argue, the one-off nature of inheritance taxes may make it easier to hide wealth or to employ long-run tax planning strategies without alerting tax authorities.

¹⁸ Henrekson and Waldenström (2016) report that inter alia due to increasing tax avoidance Swedish inheritance tax considerable lost in legitimacy, which was one of the reasons to eventually repeal the tax.

and evasion are highly concentrated among the rich¹⁹. Nordblom and Ohlsson (2006) point to the integration and alignment, respectively, of inheritance and gift taxation as one central lever to reduce tax avoidance via tax-privileged inter vivos transfers (see also Escobar et al., 2019). Moreover, institutional design features are crucial. In their review of behavioral responses to a wealth tax, Advani and Tarrant (2021) identify as key design features among others third-party reporting and the degree of decentralization, where the first one is negatively and the second one positively correlated with elasticities of taxable wealth. In her analysis for Spain, Mas Montserrat (2019) finds considerable inheritance tax evasion under low enforcement. Glogowsky (2021) interprets the very low elasticities found for Germany as the result of an institutional setting leading to high enforcement due to third-party reporting and asset valuation through tax offices.

Third, a particular challenge for any attempt to reinforce inheritance taxation is a lack of public support for the taxation of inheritances in most countries²⁰. Therefore, reforms strengthening the effectiveness of inheritance taxation as well as initiatives to adopt or to re-introduce inheritance taxes need to be embedded in measures enhancing public acceptance and thus the political feasibility of inheritance taxes. One important factor is the origin of wealth: for the United States, Fisman et al. (2020) show that people support considerably higher wealth tax rates on inherited compared to self-made wealth. This finding should hold also for the taxation of inheritances. Bastani and Waldenström (2021) show that the popularity of inheritance taxes could be increased by providing information on the importance and distribution of inherited wealth. Moreover, recent empirical evidence suggests that particularly information extending public knowledge on salience and level of inheritance taxes appears to be crucial. Several empirical analyses show that misinformation of the public regarding the effects of inheritance taxes is substantial. For example, according to Kuziemko et al. (2015) people greatly over-estimate the share of households affected by the United States' estate tax. Similarly, Grégoire-Marchand (2018) finds that the inheritance tax level is substantially over-rated in France. Stantcheva (2021), based on surveys, shows that misperceptions regarding the design of the United States' estate tax and accordingly on its salience are large on average. Not least, Schechtl and Tisch (2023) find that citizens' support for a wealth tax is highly dependent on tax design, and in particular on the size of exemptions – a result that can be plausibly assumed to apply also for inheritance taxation.

This review of empirical evidence on the behavioral impact of inheritance taxation has unveiled various research gaps.

First, more research on bequest motives, which are an important determinant of behavioral responses, is required, as one prerequisite for the optimal design of inheritance taxes. Existing research infers bequest motives from responses to inheritance taxation. Future research should in turn also explore behavioral responses depending on bequest motives in more detail.

¹⁹) See, e.g., Alstadsæter et al. (2019) who examine offshore wealth transfers for Scandinavia.

²⁰) OECD (2021) briefly reviews selected studies on the public opinion on inheritance taxation in several European countries.

Second, design features can be expected to influence behavioral responses and accordingly revenues from inheritance taxation. More systematic research is required to determine the significance of individual institutional design features for behavioral responses to inheritance taxation.

Third, to be able to identify further levers to contain tax avoidance and evasion, more research on responses of the very wealthy, whose behavioral responses have shown to be particularly pronounced, is needed.

A fourth and related aspect to be explored further is the substitutability between legal tax avoidance and illegal tax evasion, as well as generally between tax planning, avoidance, and evasion responses. Shedding light on the nature of potential interrelations between these types of responses should help to inform initiatives to improve tax collection.

Fifth, the current state of the empirical research on the impact of inheritance taxation on entrepreneurship and firm development regarding bequeathers is unsatisfactory. Particularly, ex-post studies based on adequate methodological approaches are lacking.

Sixth, comparative analyses studying the behavioral responses to net wealth taxes versus inheritance taxes within a common framework are urgently needed.

And finally, conclusions drawn from the existing empirical evidence for one of the few countries that have been studied so far can hardly be transferred to other countries (Jappelli et al., 2010). This holds true the more, as the dominance of analyses studying the United States implies a focus on estate taxes, so that general conclusions may be biased towards the US. This implies a need for additional studies on the behavioral effects of existing and historical inheritance taxes in individual countries, but also in a cross-country comparative perspective.

Overall, the existing empirical studies yield moderate behavioral responses to inheritance taxation, which can be contained further by an appropriate tax design. Thus, inheritance taxes present themselves as an apt revenue-raising and inequality-decreasing tax instrument that could play a much larger role in future-oriented tax systems.

References

- Acciari, P., and Morelli, S. (2022). Wealth Transfers and Net Wealth at Death: Evidence from the Italian Inheritance Tax Records, 1995-2016. NBER Working Paper, 27899. <https://doi.org/10.3386/w27899>.
- Advani, A., Burgherr, D., and Summers, A. (2022). Taxation and Migration by the Super-Rich. Warwick Economics Research Paper, 1427.
- Advani, A., and Tarrant, H. (2021). Behavioural Responses to a Wealth Tax. *Fiscal Studies*, 42(3–4), 509–537.
- Agrawal, D. R., Foremny, D., and Martínez-Toledano, C. (2020). Paraísos Fiscales, Wealth Taxation, and Mobility. IEB Working Paper, 15. <https://ieb.ub.edu/en/publication/2020-15-paraisos-fiscales-wealth-taxation-and-mobility/>
- Agrawal, D. R., Foremny, D., and Martínez-Toledano, C. (2020). Wealth Tax Mobility and Tax Coordination (SSRN Scholarly Paper 3676031). <https://doi.org/10.2139/ssrn.3676031>
- Akgun, O., Cournède, B., and Fournier, J.-M. (2017). The Effects of the Tax Mix on Inequality and Growth. OECD Economics Department Working Paper, 1447. <https://doi.org/10.1787/c57eaa14-en>
- Alstadsæter, A., Johannesen, N., Le Guern Herry, S., and Zucman, G. (2022). Tax Evasion and Tax Avoidance. *Journal of Public Economics*, 206, 104587. <https://doi.org/10.1016/j.jpubeco.2021.104587>

- Alstadsæter, A., Johannesen, N., and Zucman, G. (2018). Who Owns the Wealth in Tax Havens? Macro Evidence and Implications for Global Inequality. *Journal of Public Economics*, 162(C), 89–100.
- Alstadsæter, A., Johannesen, N., and Zucman, G. (2019). Tax Evasion and Inequality. *American Economic Review*, 109(6), 2073–2103. <https://doi.org/10.1257/aer.20172043>
- Alvaredo, F., Garbinti, B., and Piketty, T. (2017). On the Share of Inheritance in Aggregate Wealth: Europe and the USA, 1900-2020. *Economica*, 84: 239–260. <https://doi.org/10.1111/ecca.12233>
- Andreoni, J. (1990). Impure Altruism and Donations to Public Goods: A Theory of Warm-Glow Giving. *The Economic Journal*, 100(401), 464–477. <https://doi.org/10.2307/2234133>
- Arrondel, L., and Laferrère, A. (2001). Taxation and Wealth Transmission in France. *Journal of Public Economics*, 79(1), 3–33. [https://doi.org/10.1016/S0047-2727\(00\)00093-1](https://doi.org/10.1016/S0047-2727(00)00093-1)
- Astrachan, J. H., and Tutterow, R. (1996). The Effect of Estate Taxes on Family Business: Survey Results. *Family Business Review*, 9(3), 303–314. <https://doi.org/10.1111/j.1741-6248.1996.00303.x>
- Atkinson, A. B. (2018). Wealth and Inheritance in Britain from 1896 to the Present. *Journal of Economic Inequality*, 16: 137–169.
- Bach, L., Bozio, A., Guillozouic, A., and Malgouyres, C. (2020). Escape or Play Again? How Retiring Entrepreneurs Respond to the Wealth Tax, mimeo.
- Bach, S. (2021). Universal Capital Endowment and Wealth Taxes Could Reduce Wealth Inequality. *DIW Weekly Reports*, 11(49–52), 379–387.
- Bakija, J., and Slemrod, J. (2004). Do the Rich Flee from High State Taxes? Evidence from Federal Estate Tax Returns. NBER Working Paper, 10645. <https://doi.org/10.3386/w10645>
- Baselgia, E., and Martinez, I. (2022). Tracking and Taxing the Super-Rich: Insights from Swiss Rich Lists. CESifo Working Paper, 9778. <https://doi.org/10.2139/ssrn.4135944>
- Basiglio, S., Rossi, M.C., and van Soest, A. (2023). Subjective Inheritance Expectations and Economic Outcomes. *Review of Income and Wealth*, 69(4), 1088–1113. <https://doi.org/10.1111/roiw.12621>
- Bastani, S., and Waldenström, D. (2020). How Should Capital Be Taxed? *Journal of Economic Surveys*, 34(4), 812–846. <https://doi.org/10.1111/joes.12380>
- Bastani, S., and Waldenström, D. (2021). Perceptions of Inherited Wealth and the Support for Inheritance Taxation. *Economica*, 88(350), 532–569. <https://doi.org/10.1111/ecca.12359>
- Batchelder, L. L. (2009). What Should Society Expect from Heirs? The Case for a Comprehensive Inheritance Tax. *Tax Law Review*, 63.
- Bauer, A., Garbinti, B., and Georges-Kot, S. (2018). Financial Constraints and Self-Employment in France, 1945-2014. INSEE Working Paper, g2018/08.
- Bernheim, B. D., Lemke, R. J., and Scholz, J. K. (2004). Do Estate and Gift Taxes Affect the Timing of Private Transfers? *Journal of Public Economics*, 88(12), 2617–2634. <https://doi.org/10.1016/j.jpubeco.2003.11.004>
- Black, S., Devereux, P. J., Landaud, F., and Salvanes, K. G. (2022). The (Un)Importance of Inheritance. CEPR Discussion Paper, DP16940.
- Bø, E. E., Halvorsen, E., and Thoresen, T. O. (2019). Heterogeneity of the Carnegie Effect. *Journal of Human Resources*, 54(3), 726–759. <https://doi.org/10.3368/jhr.54.3.0915.7366R1>
- Boadway, R., Chamberlain, E., and Emmerson, C. (2010). Taxation of Wealth and Wealth Transfers. In J. A. Mirrlees, S. Adam, T. Besley, R. Blundell, S. Bond, R. Chote, M. Gammie, P. Johnson, G. Myles, and J. Poterba (Eds.), *Dimensions of tax design: The Mirrlees review* (pp. 737–836). Oxford University Press.
- Brown, J. R., Coile, C. C., and Weisbenner, S. J. (2010). The Effect of Inheritance Receipt on Retirement. *The Review of Economics and Statistics*, 92(2), 425–434. <https://www.jstor.org/stable/27867546>
- Bruce, D., and Mohsin, M. (2006). Tax Policy and Entrepreneurship: New Time Series Evidence. *Small Business Economics*, 26(5), 409–425. <https://doi.org/10.1007/s11187-005-5602-8>
- Brülhart, M., Gruber, J., Krapf, M., and Schmidheiny, K. (2021). Behavioral Responses to Wealth Taxes: Evidence from Switzerland. *American Economic Journal: Economic Policy*, Mimeo. www.hec.unil.ch/mbrulhar/papers/wealthtax.pdf

- Brülhart, M., and Parchet, R. (2014). Alleged Tax Competition: The Mysterious Death of Bequest Taxes in Switzerland. *Journal of Public Economics*, 111(C), 63–78.
- Brülhart, M., and Schmidheiny, K. (2018). Taxpayers Seek Strategies to Avoid Wealth Tax. CESifo DICE Report, 16(2), 19–21.
- Brunetti, M. J. (2006). The Estate Tax and the Demise of the Family Business. *Journal of Public Economics*, 90(10), 1975–1993. <https://doi.org/10.1016/j.jpubeco.2006.05.012>
- Cagetti, M., and De Nardi, M. (2009). Estate Taxation, Entrepreneurship, and Wealth. *The American Economic Review*, 99(1), 85–111.
- Cebula, R. J. (1990). A Brief Empirical Note on the Tiebout Hypothesis and State Income Tax Policies. *Public Choice*, 67, 87–89.
- Cesarini, D., Lindqvist, E., Notowidigdo, M. J., and Östling, R. (2017). The Effect of Wealth on Individual and Household Labor Supply: Evidence from Swedish Lotteries. *American Economic Review*, 107(12), 3917–3946. <https://doi.org/10.1257/aer.20151589>
- Chapman, K., Hariharan, G., and Southwick, L. (1996). Estate Taxes and Asset Accumulation. *Family Business Review*, 9(3), 253–268. <https://doi.org/10.1111/j.1741-6248.1996.00253.x>
- Clark, D. E., and Hunter, W. J. (1992). The Impact of Economic Opportunity, Amenities and Fiscal Factors on Age-Specific Migration Rates. *Journal of Regional Science*, 32(3), 349–365. <https://doi.org/10.1111/j.1467-9787.1992.tb00191.x>
- Conway, K. S., and Houtenville, A. J. (2001). Elderly Migration and State Fiscal Policy: Evidence from the 1990 Census Migration Flows. *National Tax Journal*, 54(1), 103–123. <https://doi.org/10.17310/ntj.2001.1.05>
- Conway, K. S., and Rork, J. C. (2006). State 'Death' Taxes and Elderly Migration—The Chicken or the Egg? *National Tax Journal*, 59(1), 97–128. <https://doi.org/10.17310/ntj.2006.1.05>
- Conway, K. S., and Rork, J. C. (2012). No Country for Old Men (or Women)—Do State Tax Policies Drive Away the Elderly? *National Tax Journal*, 65(2), 313–356. <https://doi.org/10.17310/ntj.2012.2.03>
- Cox, D. (1987). Motives for Private Income Transfers. *Journal of Political Economy*, 95(3), 508–546. <https://doi.org/10.1086/261470>
- Cremer, H., and Pestieau, P. (2011). Wealth and Wealth Transfer Taxation: A Survey. In E. Albi and J. Martinez-Vazquez (Eds.), *The Elgar Guide to Tax Systems* (pp. 183–217). Edward Elgar Publishing.
- Doorley, K., and Pestel, N. (2020). Labour Supply after Inheritances and the Role of Expectations. *Oxford Bulletin of Economics and Statistics*, 82(4), 843–863. <https://doi.org/10.1111/obes.12353>
- Drometer, M., Frank, M., Hofbauer Pérez, M., Rhode, C., Schworm, S., and Stitteneder, T. (2018). Wealth and Inheritance Taxation: An Overview and Country Comparison. CESifo DICE Report, 16(2), 45–54.
- Elinder, M., Erixson, O., and Waldenström, D. (2018). Inheritance and Wealth Inequality: Evidence from Population Registers. *Journal of Public Economics*, 165, 17–30. <https://doi.org/10.1016/j.jpubeco.2018.06.012>
- Eller, M. B., Erard, B., and Ho, C.-C. (2001). Noncompliance with the Federal Estate Tax. In W. G. Gale, J. R. Hines, and J. Slemrod (Eds.), *Rethinking Estate and Gift Taxation* (pp. 375–410). Brookings Institution Press.
- Eller, M. B., and Johnson, B. W. (1999). Using a Sample of Federal Estate Tax Return to Examine the Effects of Audit Revaluation on Pre-audit Estimates. In *Turning Administrative Systems into Information Systems*, Statistics of Income Division, Internal Revenue Service, as Presented at the 1999 Joint Statistical Meetings of the American Statistical Association (pp. 1–7).
- Erard, B. (1998). Estate Tax Underreporting Gap Study: A Report prepared for the IRS Economic Analysis and Modeling Group. Internal Revenue Service.
- Erixson, O., and Escobar, S. (2020). Deathbed Tax Planning. *Journal of Public Economics*, 185(C), 1–16.
- Ernst & Young (2019). *Worldwide Estate and Inheritance Tax Guide 2019*. Ernst & Young.
- Escobar, S. (2017). Inheritance Tax Evasion: Spousal Bequests and Under-reporting of Inheritances in Sweden. Working Paper. <https://ieb.uib.edu/wp-content/uploads/2018/06/Escobar.pdf>
- Escobar, S., Ohlsson, H., and Selin, H. (2019). Taxes, Frictions and Asset Shifting: When Swedes Disinherited Themselves. IFAU Working Paper, 2019(6).

- Fisman, R., Gladstone, K., Kuziemko, I., and Naidu, S. (2020). Do Americans Want to Tax Wealth? Evidence from Online Surveys. *Journal of Public Economics*, 188, 104207. <https://doi.org/10.1016/j.jpubeco.2020.104207>
- Gale, W. G., and Perozek, M. G. (2001). Do Estate Taxes Reduce Saving? In W. G. Gale, J. R. Hines, and J. Slemrod (Eds.), *Rethinking Estate and Gift Taxation* (pp. 216–257). Brookings Institution Press.
- Gale, W., and Slemrod, J. (2001). Rethinking the Estate and Gift Tax: Overview. NBER Working Paper, 8205. <https://doi.org/10.3386/w8205>
- Garbinti, B., and Georges-Kot, S. (2016). Time to Smell the Roses? Risk Aversion, the Timing of Inheritance Receipt, and Retirement. INSEE Working Paper, G2016/01.
- Garbinti, B., and Goupille-Lebret, J. (2018). The Impact of Inheritance and Transfer Taxation on Economic Behaviours and Inequality: A Literature Review for France. Ifo DICE Report, 16(2), 13–18.
- Glogowsky, U. (2021). Behavioral Responses to Inheritance and Gift Taxation: Evidence from Germany. *Journal of Public Economics*, 193, 104309. <https://doi.org/10.1016/j.jpubeco.2020.104309>
- Goupille-Lebret, J., and Infante, J. (2018). Behavioral Responses to Inheritance Tax: Evidence from Notches in France. *Journal of Public Economics*, 168(C), 21–34.
- Grégoire-Marchand, P. (2018). La Fiscalité des Héritages: Connaissances et Opinions des Français, France Stratégie. France Stratégie, Document de Travail, 2. <https://www.strategie.gouv.fr/>
- Grossman, P. J. (1990). Fiscal Competition Among States in Australia: The Demise of Death Duties. *Publius: The Journal of Federalism*, 20(4), 145–159. <https://doi.org/10.1093/oxfordjournals.pubjof.a037899>
- Grossmann, V., and Strulik, H. (2010). Should Continued Family Firms Face Lower Taxes than other Estates? *Journal of Public Economics*, 94(1), 87–101. <https://doi.org/10.1016/j.jpubeco.2009.10.005>
- Henrekson, M., and Du Rietz, G. (2014). The Rise and Fall of Swedish Wealth Taxation. *Nordic Tax Journal*, 1(1), 9–35.
- Henrekson, M., and Waldenström, D. (2016). Inheritance Taxation in Sweden, 1885–2004: The Role of Ideology, Family Firms, and Tax Avoidance. *Economic History Review*, 69(4), 1228–1254.
- Holtz-Eakin, D. (1999). The Death Tax: Investments, Employment, and Entrepreneurs. *Tax Notes*, 84(5), 782–792.
- Holtz-Eakin, D., Joulfaian, D., and Rosen, H. S. (1993). The Carnegie Conjecture: Some Empirical Evidence. *The Quarterly Journal of Economics*, 108(2), 413–435. <https://doi.org/10.2307/2118337>
- Holtz-Eakin, D., and Marples, D. (2001). Distortion Costs of Taxing Wealth Accumulation: Income Versus Estate Taxes. NBER Working Paper, 8261.
- Hugo, G. J. (1983). Interstate Migration in Australia, 1976–81. *Australian Bulletin of Labour*, 9, 102–130.
- IMF (2021). Fiscal Monitor April 2021. International Monetary Fund.
- Jakobsen, K., Jakobsen, K., Kleven, H., and Zucman, G. (2020). Wealth Taxation and Wealth Accumulation: Theory and Evidence from Denmark. *Quarterly Journal of Economics*, 135(1), 329–388.
- Jappelli, T., Padula, M., and Pica, G. (2010). Estate Taxation and Intergenerational Transfers. CEPR Discussion Paper, DP7701.
- Jestl, S. (2021). Inheritance Tax Regimes: A Comparison. *Public Sector Economics*, 45(3), 363–385. <https://doi.org/10.3326/pse.45.3.3>
- Joulfaian, D. (2004). Gift Taxes and Lifetime Transfers: Time Series Evidence. *Journal of Public Economics*, 88(9–10), 1917–1929. <https://doi.org/10.1016/j.jpubeco.2003.06.002>
- Joulfaian, D. (2005). Choosing Between Gifts and Bequests. How Taxes Affect the Timing of Wealth Transfers. *Journal of Public Economics*, 89(11–12), 2069–2091.
- Joulfaian, D. (2006). Inheritance and Saving. NBER Working Paper, 12569.
- Joulfaian, D. (2016). What Do We Know About the Behavioral Effects of the Estate Tax? *Boston College Law Review*, 57(3), 843–858.
- Joulfaian, D., and McGarry, K. (2004). Estate and Gift Tax Incentives and Inter Vivos Giving. *National Tax Journal*, 57(2), 429–444.
- Kindermann, F., Mayr, L., and Sachs, D. (2020). Inheritance Taxation and Wealth Effects on the Labor Supply of Heirs. *Journal of Public Economics*, 191, 104127. <https://doi.org/10.1016/j.jpubeco.2019.104127>

- Kleven, H. J. (2016). Bunching. *Annual Review of Economics*, 8, 435–464.
- Kleven, H., Landais, C., Muñoz, M., and Stantcheva, S. (2020). Taxation and Migration: Evidence and Policy Implications. *Journal of Economic Perspectives*, 34(2), 119–142. <https://doi.org/10.1257/jep.34.2.119>
- Kopczuk, W. (2007). Bequest and Tax Planning: Evidence from Estate Tax Returns. *The Quarterly Journal of Economics*, 122(4), 1801–1854.
- Kopczuk, W. (2010). Economics of Estate Taxation: A Brief Review of Theory and Evidence. NBER Working Paper, 15741. <https://doi.org/10.3386/w15741>
- Kopczuk, W. (2013a). Incentive Effects of Inheritances and Optimal Estate Taxation. *American Economic Review*, 103(3), 472–477. <https://doi.org/10.1257/aer.103.3.472>
- Kopczuk, W. (2013b). Taxation of Transfers and Wealth. In A. A. Auerbach, R. Chetty, M. Feldstein, and E. Saez (Eds.), *Handbook of Public Economics* (Vol. 5, pp. 329–390). Elsevier.
- Kopczuk, W. (2017). U.S. Capital Gains and Estate Taxation: A Status Report and Directions for a Reform. In A. A. Auerbach and K. Smetters (Eds.), *The Economics of Tax Policy* (pp. 265–291). Oxford University Press.
- Kopczuk, W., and Lupton, J. P. (2007). To Leave or Not to Leave: The Distribution of Bequest Motives. *The Review of Economic Studies*, 74(1), 207–235.
- Kopczuk, W., and Slemrod, J. (2001). The Impact of the Estate Tax on the Wealth Accumulation and Avoidance Behavior of Donors. In W. G. Gale, J. R. Hines, and J. Slemrod (Eds.), *Rethinking Estate and Gift Taxation* (pp. 299–349). Brookings Institution Press.
- Kopczuk, W., and Slemrod, J. (2005). Denial of Death and Economic Behavior. NBER Working Paper, 11485. <https://doi.org/10.3386/w11485>
- Kuziemko, I., Norton, M. I., Saez, E., and Stantcheva, S. (2015). How Elastic Are Preferences for Redistribution? Evidence from Randomized Survey Experiments. *American Economic Review*, 105(4), 1478–1508. <https://doi.org/10.1257/aer.20130360>
- Kvaerner, J. S. (2020). Intergenerational Altruism: Estimates Based on News About Expected Mortality. Mimeo.
- Laitner, J. (2000). Simulating the Effects on Inequality and Wealth Accumulation of Eliminating the Federal Gift and Estate Tax. University of Michigan Business School Working Paper, 2000–3. <https://www.bus.umich.edu/otpr/papers/2000-3.PDF>
- Lindkvist, H. (1990). Kapitalemigration. Unpublished PhD thesis, Stockholm.
- Londoño-Vélez, J., and Ávila-Mahecha, J. (2021). Enforcing Wealth Taxes in the Developing World: Quasi-experimental Evidence from Colombia. *American Economic Review: Insights*, 3(2), 131–148. <https://doi.org/10.1257/aeri.20200319>
- López-Laborda, J., and Rodrigo, F. (2022). Mobility of Top Income Taxpayers in Response to Regional Differences in Personal Taxes: Evidence from Spain. *Economics*, 16(1), 152–169. <https://doi.org/10.1515/econ-2022-0016>
- Mas Montserrat, M. (2019). What Happens When Dying Gets Cheaper? Behavioural Responses to Inheritance Taxation. Job Market Paper, March. https://ucfs.nek.uu.se/digitalAssets/796/c_796916-l_1-k_phd-workshop-ucfs-m-mas-montserrat.pdf
- McGarry, K. (2001). The Cost of Equality: Unequal Bequests and Tax Avoidance. *Journal of Public Economics*, 79(1), 179–204.
- Moretti, E., and Wilson, D. J. (2022). Taxing Billionaires: Estate Taxes and the Geographical Location of the Ultra-Wealthy. *American Economic Journal: Economic Policy*, forthcoming .
- Naess-Schmidt, H. S., Thorø Pedersen, S., Harhoff, F., Winiarczyk, M., and Jervelund, C. (2011). Study on Inheritance Taxes in EU Member States and Possible Mechanisms to Resolve Problems of Double Inheritance Taxation in the EU. Copenhagen Economics.
- Nekoei, A., and Seim, D. (2022). How Do Inheritances Shape Wealth Inequality? Theory and Evidence from Sweden. Mimeo. <http://www.restud.com/wp-content/uploads/2022/03/MS26804manuscript.pdf>
- Niimi, Y. (2019). The Effect of the Recent Inheritance Tax Reform on Bequest Behaviour in Japan. *Fiscal Studies*, 40(1), 45–70.

- Niimi, Y., and Horioka, C. Y. (2019). The Wealth Decumulation Behavior of the Retired Elderly in Japan: The Relative Importance of Precautionary Saving and Bequest Motives. *Journal of the Japanese and International Economies*, 51(3), 52–63.
- Nordblom, K., and Ohlsson, H. (2006). Tax Avoidance and Intra-Family Transfers. *Journal of Public Economics*, 90(8–9), 1669–1680.
- OECD (2018). *The Role and Design of Net Wealth Taxes in the OECD*. OECD.
- OECD (2021). *Inheritance Taxation in OECD Countries*. OECD.
- OECD (2022). *Revenue Statistics*. OECD.
- Ohlsson, H. (2007). Tax Avoidance—A Natural Experiment. Uppsala Economics Working Paper, No. 2007:13. <https://doi.org/10.2139/ssrn.965428>
- Ohlsson, H. (2011). The Legacy of the Swedish Gift and Inheritance Tax, 1884–2004. *European Review of Economic History*, 15(3), 539–569.
- Ohlsson, H., Roine, J., and Daniel Waldenström. (2020). Inherited Wealth over the Path of Development: Sweden, 1816–2016. *Journal of the European Economic Association*, 18(3), 1123–1157.
- Önder, A. S., and Schlunk, H. (2015). State Taxes, Tax Exemptions, and Elderly Migration. *Journal of Regional Analysis and Policy*, 45(1), 47–67.
- Page, B. R. (2003). Bequest Taxes, Inter Vivos Gifts, and the Bequest Motive. *Journal of Public Economics*, 87(5), 1219–1229. [https://doi.org/10.1016/S0047-2727\(01\)00177-3](https://doi.org/10.1016/S0047-2727(01)00177-3)
- Pérez-González, F. (2006). Inherited Control and Firm Performance. *The American Economic Review*, 96(5), 1559–1588.
- Perret, S. (2021). Why Did Other Wealth Taxes Fail and is this Time Different? *Fiscal Studies*, 42(3–4), 539–563.
- Piketty, T. (2011). On the Long-run Evolution of Inheritance: France 1820–2050. *Quarterly Journal of Economics*, 126(3): 1071–1131. <https://doi.org/10.1093/qje/qjr020>
- Pichet, E. (2007). The Economic Consequences of the French Wealth Tax. *La Revue de Droit Fiscal*, 14, 1–25.
- Piketty, T., and Saez, E. (2013). A Theory of Optimal Inheritance Taxation. *Econometrica*, 81(5), 1851–1886.
- Poterba, J. M. (2000). The Estate Tax and After-Tax Investment Returns. NBER Working Paper, 6337.
- Poterba, J. M. (2001). Estate and Gift Taxes and Incentives for Inter Vivos Giving in the US. *Journal of Public Economics*, 79(1), 237–264.
- Repetti, J. R. (1999). Entrepreneurs and the Estate Tax. *Tax Notes*, 84, 1541–1544.
- Ring, M. A. K. (2020). Wealth Taxation and Household Saving: Evidence from Assessment Discontinuities in Norway. Mimeo. <https://doi.org/10.2139/ssrn.3716257>
- Roine, J., and Waldenström, D. (2015). Long-Run Trends in the Distribution of Income and Wealth. In A. B. Atkinson and F. Bourguignon (Eds.), *Handbook of Income Distribution* (Vol. 2A, pp. 469–592). Elsevier. <https://doi.org/10.1016/B978-0-444-59428-0.00008-4>
- Schechtel, M., and Tisch, D. (2023). Tax principles, policy feedback and self-interest: Cross-national experimental evidence on wealth tax preferences. *Socio-Economic Review*, mwac071. <https://doi.org/10.1093/ser/mwac071>
- Scheuer, F., and Slemrod, J. (2021). Taxing Our Wealth. *Journal of Economic Perspectives*, 35(1), 207–230.
- Schmalbeck, R. L. (2001). Avoiding Federal Wealth Transfer Taxes. In W. G. Gale, J. R. Hines, and J. Slemrod (Eds.), *Rethinking Estate and Gift Taxation* (pp. 113–158). Brookings Institution Press.
- Sommer, E. (2017). Wealth Transfers and Tax Planning: Evidence for the German Bequest Tax. IZA Discussion Paper, 11120.
- Stantcheva, S. (2021). Understanding Tax Policy: How do People Reason? *The Quarterly Journal of Economics*, 136(4), 2309–2369. <https://doi.org/10.1093/qje/qjab033>
- Stantcheva, S. (2022). How to Run Surveys: A Guide to Creating Your Own Identifying Variation and Revealing the Invisible. NBER Working Paper, 30527. <https://doi.org/10.3386/w30527>
- Sturrock, D., Groot, S., and Möhlmann, J. (2022). Wealth, Gifts and Estate Planning at the End of Life. Institute for Fiscal Studies Working Paper, 22/29.

- Suari-Andreu, E., Ooijen, R., Alessi, R., and Angelini, V. (2019). Giving with a Warm Hand: Evidence on Estate Planning and Bequests. Netspar Industry Series Design Paper, 120.
- Süß, R. (Ed.). (2019). *Erbrecht in Europa*. (4th ed.). Zerb-Verlag.
- Tait, A. A. (1967). *The Taxation of Personal Wealth*. University of Illinois Press.
- Thoresen, T. O., Ring, M. A. K., Nygard, O. E., and Epland, J. (2021). A Wealth Tax at Work. Statistics Norway Research Department Discussion Paper, 960.
- Tsoutsoura, M. (2015). The Effect of Succession Taxes on Family Firm Investment: Evidence from a Natural Experiment. *The Journal of Finance*, 70(2), 649–688. <https://doi.org/10.1111/jofi.12224>
- Voss, P. R., Gunderson, R. J., and Manchin, R. (1988). Death Taxes and Elderly Interstate Migration. *Research on Aging*, 10(3), 420–450. <https://doi.org/10.1177/0164027588103007>
- Waldenström, D. (2018). Inheritance and Wealth Taxation in Sweden. *Ifo DICE Report*, 16(2), 8–12.
- Wolff, E. N. (1996). Discussant's Comments on Douglas Holtz-Eakin, 'The Uneasy Case for Abolishing the Estate Tax'. *Tax Law Review*, 51(3), 517–522.
- Zucman, G. (2015). *The Hidden Wealth of Nations. The Scourge of Tax Havens*. University of Chicago Press.