Transfer Taxes and Inequality

Tullio Jappelli, Mario Padula and Giovanni Pica

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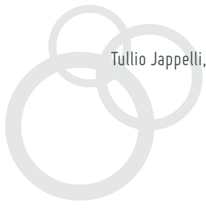

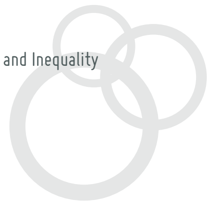

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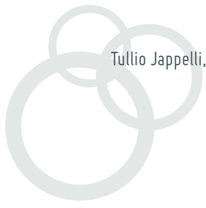


Abstract

This study surveys the existing debate on the taxation of the intergenerational transfers. Understanding the effect of transfer taxes on the intergenerational transmission of wealth requires answering the difficult question of what is the effect of taxes on bequest. On the one hand, the economic literature is far from sharing a unanimous view on the exact nature of the motive to leave bequests. On the other, data problems, and in particular lack of data on donors, makes it hard to provide conclusive evidence on the matter. To put the debate in context, we review the legislation on the taxation of intergenerational transfers in several OECD countries. Institutional arrangements on estate taxations vary widely between countries. Despite such heterogeneity, the revenues from taxing intergenerational transfers are generally low, and decreasing from 1% in the mid-sixties to 0.4% after 1980. We take this trend as broadly indicative that little redistribution takes place through taxation of intergenerational transfers. The available evidence and the related theoretical issues make it hard to establish a causal link between the increase in wealth and income inequality and the vanishing transfer tax.

Keywords: intergenerational transfers, intergenerational persistence, mobility, estate and inheritance taxes.

We should eliminate the death tax completely because people shouldn't be taxed twice on their assets. It's either unfair for some or unfair for all. I think if you've got tax relief, everybody benefits. On principle, everyone should be free to pass on their life's work to those they love. So we will abolish the death tax (George W. Bush, St. Louis debate, 17 October 2000).

The problem with completely eliminating [the estate tax] goes back to the wealthiest 1 percent. The amount of money that has to be raised in taxes from middle class families would be a heavy burden (Al Gore, St. Louis debate, 17 October 2000).

Dynastic wealth, the enemy of a meritocracy, is on the rise. Equality of opportunity has been on the decline. A progressive and meaningful estate tax is needed to curb the movement of a democracy toward plutocracy (Warren Buffett, Hearings of the Senate Finance Committee, 14 November 2007).

1. Introduction

Most developed countries, including the U.S. and the vast majority of European countries, tax intergenerational transfers. Two main taxes are levied on bequests and gifts: the estate tax, which is levied on the total estate of the donor, regardless of the characteristics and number of recipients, and the inheritance tax, which is levied on the share of transfers received by recipients. Even though in OECD countries the yield of transfer taxes hardly exceeds 1 percent of total government revenues, estate taxes are the subject of intense quarrels both in the U.S. and Europe because of their potential effects on capital accumulation and intergenerational wealth mobility (Gale and Slemrod, 2001).

Economists disagree on the appropriateness and efficiency of transfer taxes, providing arguments in favor or against taxation. Transfer taxes are believed to inhibit capital accumulation and economic growth, threaten the survival of family businesses, depress entrepreneurial activities and especially penalize thrifty individuals who work and save. Opponents also claim that it is easy to avoid, it produces low fiscal revenues, and is therefore not efficient in reducing inequality. Advocates of transfer taxes emphasize instead the positive effect on redistribution, and highlight the negative externality associated with wealth concentration. They also maintain that it is non distortionary, because it is paid at death, it is fair because it taxes unearned resources, and it is paid by only by few (and very wealthy) people.

However, the academic and policy debate lacks reliable estimates of the effect of transfer taxes on the propensity to bequeath, and therefore on fiscal revenues, wealth transmission and intergenerational mobility. One crucial reason for relatively little empirical evidence on the effect of transfer taxes is the lack of data on donors. The few existing studies address the question of how transfer taxation affects the overall size of estates, thus providing limited evidence in support of the debating parties.

The paper describes the characteristics of transfer taxes in OECD countries, highlighting institutional differences and trends in the associated tax revenues. A wide variety of institutional settings emerges from the cross-country comparison. Some European countries use inheritance taxes – levied on the recipient – while others (e.g. the U.S.) estate taxes – levied on the estate of the donor – and some a mix of the two. Despite this heterogeneity, the data document a general trend towards a reduction in transfer taxes. In OECD countries the revenues from transfers taxes went from 1% of total tax revenues in 1965 to 0.4% in recent years. Some countries eliminated

transfer taxes completely (e.g. Sweden), others raised exemptions, still others reduced the tax rates on estates. Thus, Bertocchi (2007) terms the transfer tax as the "vanishing tax".

The paper also analyzes the theoretical link between estate taxation, wealth accumulation, wealth inequality and the degree of intergenerational persistence of wealth. Economic theory shows that the theoretical impact of transfer taxes on net bequests is unambiguously negative, except for the case of accidental bequests. Nevertheless, the effect of transfer taxes on wealth accumulation is ambiguous and depends on individual's preferences and the particular bequest motive considered (Kopczuk, 2010).

The final part of the paper surveys existing empirical studies on the effect of transfer taxes on wealth and inequality. The available estimates point to small tax effects, with elasticities ranging between 0.1 and 0.2 percent, which imply that an increase in the tax rate of 10% reduces intergenerational transfers by only 1 percent. This is only un upper estimate of the tax effect, because the literature is not able to separate the "genuine" tax effect from the confounding tax avoidance effects, for which the evidence is rather scattered and somewhat inconclusive.

While the fact that different institutional arrangements generate low (and similar) tax revenues can be taken as evidence that there is little room for redistribution through intergenerational transfer taxes, it is difficult to establish a causal link between the vanishing bequest and the increase in wealth and income inequality observed in many OECD over the last decades. The reason is that there is no consensus on the nature and motives of intergenerational transfers and that data limitations make it hard to attribute the increase in wealth (and income) inequality to a reduction in transfer taxes.

2. Wealth transfer taxes in OECD countries

Transfer taxes – whether on bequests or inter vivos transfers – can be levied on the estate of the donor (which is typical in common law countries), or on the transfer received by the heir. The tax base is assessed on the net value of the taxable assets transferred. As explained by Cremer and Pestieau (2010), donor-based taxes can be levied separately on *inter vivos* transfers (gift tax) on transfers at death (estate tax), or together in a single integrated tax. Also recipient-based taxes can be levied on *inter vivos* transfers (gift tax), on transfers at death (inheritance tax), and on an integrated basis (accessions tax). The most common approach to taxing wealth transfers among OECD countries is an inheritance tax.

The OECD provides detailed statistics on tax revenues from the combined estate, inheritance and gift taxes. Data for 1965-2009 are plotted in Figure 1, which shows the pattern of revenues from estate, inheritance and gift taxes as a percentage of total taxation. Overall, these taxes play a minor and decreasing role in the total tax revenues of OECD countries, as revenues decline from an initial 1% to 0.4% in 1980, a level at which they stay roughly constant thereafter.

This aggregate figure hides substantial cross-country heterogeneity. Figure 2 displays the share of revenues from wealth transfer taxes as a percentage of total taxation for France, Japan, U.K. and U.S.. These countries show a relatively high impact of transfer taxes on total taxation. Both the U.K. and the U.S. stand out for the very high initial levels (about 2.5% and 2%, respectively) and the joint sharp decrease that starts from the mid 70's, followed by a period of constant revenues ranging between 0.5-0.7% in the U.K. and 0.8-1% in the U.S. France exhibits instead an increasing pattern going from 0.5% in 1965 to around 1% in 2009. Japan shows pronounced fluctuations around an increasing trend eventually leading to the highest share of tax revenues from wealth transfer taxes (1.8%) among OECD countries at the end of the period.

Germany, Italy, the Netherlands and Spain in Figure 3 show evidence of lower importance of estate, inheritance and gift taxes compared to the previous group. In particular, Spain and the Netherlands show a very similar pattern. They start with a 1% share in 1965 which decreases to 0.4% in the 1980s and grows back to 0.7% at the end of the period. Italy, though showing a comparable 1% in 1965, displays a decreasing trend reaching almost zero at the end of the period, following the cancellation of transfer taxes. Germany shows a slightly increasing pattern in a narrow range 0.1-0.6%. Wealth transfer taxes play a minor role also in the remaining OECD countries.

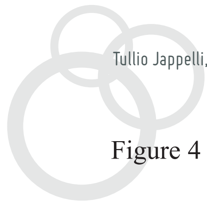


Figure 4 shows that even in the smaller countries they contribute by less than 1% to total tax revenues. Figures 5 showing tax revenues figures as a percentage of GDP in OECD countries reveals a very similar pattern.

2.1. Transfer tax structures in selected OECD countries

Cross-country comparisons would be easy if the differences were only in the average yield. However, a given yield can be obtained with totally different systems. As recalled above, the two main categories are inheritance taxes – levied on the recipient or heir – and estate taxes – levied on donor's estate. Some countries (e.g. European countries) use the former, others (e.g. the U.S.) the latter, and some a mix of the two. In this section we describe the recent evolution of the transfer tax in the U.S. and the main European countries. A wide heterogeneity in the institutional settings emerges from the cross-country comparison, a somewhat surprising finding given the evidence presented above that the yields from wealth transfer taxes are uniformly low across countries.

In the U.S. the tax base is the whole estate. The basic structure, under the Economic Growth and Tax Relief Reconciliation Act (EGTRRA) of 2001, is shown in Table 1. Tax rates varied from 18 to 55 percent over 17 brackets, depending on the relation between donors and recipients and on the number of recipients. The EGTRRA steadily increased the amount of estate exempt from tax (and reduced the top rate) and the estate tax was supposed to be entirely repealed in 2010.[1] Without extension of the EGTRRA or new legislation, in 2011 the top statutory tax rate would have reverted to 60 percent and the exemption would have fallen to $1 million per individual ($2 million per married couple). However, in 2010 Mr. Barack Obama introduced a legislation change under which the top tax rate was 35 percent with $5 million exemption per individual (Table 2). Overall, the American estate tax concerns a smaller fraction of individuals compared to European-like inheritance tax systems – like the French one – that generate approximately the same yield.

Table 3 shows the evolution of transfer taxes in Italy. Since 1990 the Italian regime – regulated by law 346/1990 – consisted of two taxes. A first tax was levied on the total estate of the donor, with an exemption threshold of approximately 125 thousand euro (250 million lire). A second tax was levied on the shares received by the recipients, provided they were not direct relatives of the donor or spouse. Both taxes were organized in several brackets with a highly progressive tax rate (from 3 to 27 percent). No transfer taxes were levied at the local level. A unified lifetime exemption applied for gifts and bequests combined.

1 Over the life of EGTRAA, successive lower brackets were removed. Depending on the tax code and year, various combinations of exemption amounts and rates existed. In 2009, for example, the only rate was 45 percent on the excess of $3.5 million, and in 2010, no rate applies (see Table 3). For 2011, under the EGTRAA, the first dollar taxed would have been $1,000,001, at a rate of 41 percent, and the subsequent rates would have applied. For example, with an estate valued at $2,750,000, the total liability would have been $1,157,500.

Between 1999 and 2001 estate taxation was eliminated in three steps before being reintroduced in 2006. The first change was implemented in 1999, raising the exemption level that applied to the donors' total estate from 125 thousand euro to 175 thousand euro (350 million lire). In 2000, a second reform ruled that the exemption applied to the share received by each recipient, and not to the total estate, effectively further raising the exemption. Moreover, above the exemption threshold, the tax became a flat rate of 4 percent for the spouse and direct relatives, 6 percent for relatives up to fourth degree, and 8 percent for other recipients. In the final step, the estate tax was abolished at the end of 2001.[2] However, in 2006 an inheritance tax was reintroduced, the tax base being the estate share received by each recipient, with a 1 million euro exemption threshold for each recipient and tax rates varying between 4% (spouse and direct relatives) and 8%.

Denmark levies two taxes on inheritance: estate duty and inheritance tax. The surviving spouse's inheritance is not liable for any tax and such transfers are deducted from the estate.[3] In most cases a tax exemption applies. If the estate is not larger than DKK1,882,400 (€252,509), and if all the assets do not collectively exceed DKK2,509,000 (€336,562) it is not necessary to pay tax on the estate of the deceased. An additional inheritance tax is levied on people other than close relatives of the deceased at a flat rate of 25%. The spouse and close relatives (children/ stepchildren, and their descendants, spouses of children/ stepchildren, parents) are not subject to inheritance tax.

In France, instead, only an inheritance tax is in place. French inheritance tax is paid by each beneficiary, pro rata to the value of net assets received after deduction of all liabilities. The spouse is exempted from inheritance. There is a tax-free allowance, which depends on the relationship of the person involved: €151,950 for parents and children, €15,195 for brothers and sisters, additional €151,950 for handicapped inheritors, and €1,520 for all other inheritors. Tax rates range between 5 and 40% for surviving parents and children (see Table 4). Brothers and sisters are charged 35% when inheriting less than €23,299; 45% when inheriting more. Relatives up to the fourth degree are charged 55%, and those more distant and unrelated persons are charged 60%.

Inheritance tax is also levied in Germany on transfers of assets after death. This duty is paid by the beneficiary. Applicable inheritance tax rates vary depending on the relationship of the beneficiary to the deceased.[4] Transfers of property are subject to inheritance tax at graduated rates depending on the value of the property and the classes

2 Bertocchi (2007) notices that bequest tax revenues have been declining in all OECD countries for the past seventy years, and proposes a politico-economic model to explain this tendency. The cancellation of estate taxes in Italy is part of this general trend, as well as the recent policy debate and legislative proposals in countries such as the U.S., the U.K. and France.

3 A basic allowance is also deductible and this allowance is regulated annually (for 2009 it was DKK255,400 or €34,260).

4 In Germany there are three relevant classes of relationship and exemptions applicable. Class I includes spouse and civil partners, children and step-children, parents and grandparents, great-grandchildren; Class II includes siblings and their children (nephews, nieces), step-parents, parents-in-law, brothers-in-law, sisters-in-law, divorced spouse; Class III includes all other individuals.

of family relationship as described in Table 5. Relatives in class I are subject to exemption thresholds between €100,000 and €500,000 and are charged between 7% and 30%.

Inheritance taxes also apply in Ireland. A threshold applies to all gift or inheritances received, with the amount of the threshold varying, depending on the nature of the relationship between the two parties. Spouses are exempt. For the 2011 tax year, the threshold of €332,084 applies where the beneficiary is a child of the deceased. For siblings and other relatives a threshold of €33,208 applies. The lowest threshold of €16,604 euro applies in all other cases. The tax rate which only applies to amounts over the thresholds is 25% from April 2009 (it was formerly 22% in 2009 and 20% in 2008.).

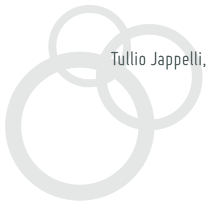
Inherited wealth in the Netherlands is subject to inheritance tax levied on the beneficiary's share of the estate. A large number of deductions apply. The deduction for surviving spouses (or for the surviving partner of an unmarried couple who have been living together for at least five years) is €532,250. For children under 23, a deduction of €4,556 for each year below the age of 23 is allowed, with a minimum of €10,323. For children older than 23 years, a deduction of €10,323 is allowed if the inheritance does not exceed €27,309. Special deductions are given to disabled children. Different rates (in Table 6) between 5% and 68% apply. The rates depend on the relationship between the heir and the testator based on three categories.[5]

In Spain bequest recipients are liable to pay an inheritance tax. Inheritance tax is also payable on lifetime gifts. There is a set of rates and allowances fixed by the national government for inheritance tax purposes shown in Tables 7 and 8. However, since the autonomous communities may modify their own rates and allowances, this set may differ from one locality to another. The inheritance Tax in the U.K. is payable on transfers made by an individual when he dies or within seven years (lifetime transfers) before it. The exemption threshold since 2009 is £325,000 (€283,143). Transfers in excess of this threshold are taxed at 40%. Finally, in Sweden, Canada, Australia, and New Zealand no transfer taxes are imposed.

Table 9 summarizes the above description and calculates the actual taxes paid with the current estate taxation under the hypothesis that the "last" parent leaves 50.000, 300.000, 1 million Euros to 2. In the first case, no taxes are due except in France and The Netherlands. In the second case transfer taxes have to be paid also in Spain. Finally, in case the last parent leaves 1 million Euros a positive amount (ranging from 7,000 in Germany to 98,278 in France) needs to be paid in all countries except Italy and Denmark.

5 Category I includes the spouse or partner (living together for at least five years) and children. Category II includes siblings, parents and other direct ascendants. Category III includes all other recipients.

Overall, institutional arrangements on estate taxations vary widely between countries. However, the data show a common decreasing trend in revenues from wealth transfers across OECD countries, which are typically decreasing from 1% in the mid sixties of the past century to 0.4% from 1980 onwards. Whether this decrease may be connected to the rise in income and wealth inequality observed over the same period requires two important steps. The first is to understand the theoretical link between transfer taxes and wealth accumulation. The second step is to study the link between transfer taxes and the intergenerational transmission of transfers. This is the goal of the next two sections that review, respectively, the theoretical and empirical literature on the effects of transfer taxes.



3. The effect of transfer taxes on the size of intergenerational transfers

As mentioned, economists disagree on the appropriateness and efficiency of transfer taxes. Some economists point out that transfer taxes inhibit capital accumulation and economic growth, while others emphasize the positive effect on redistribution, and highlight the negative externality associated with wealth concentration. Despite the importance of this debate, the survey focuses on a narrower issue, that is, whether existing estate taxes affect bequests. While the effect of estate taxes on wealth accumulation depends on individual's preferences and the particular bequest motive considered, this section shows that the theoretical impact of estate taxes on net bequests is unambiguously negative, except for the case of accidental bequests.

Bequests might be accidental, altruistic, strategic, and also arise when consumers derive utility from terminal wealth. The simplest case to be considered is one in which bequests result from people saving for retirement or for health-related expenditures. Since life is uncertain, people have positive assets when they die, even in the absence of explicit bequest motives, see Hurd (1989) or Hubbard, Skinner and Zeldes (1995). Neglecting the possibility that estate tax revenues are redistributed to future generations, in these models estate taxes mechanically reduce the inheritance left to future generations, but have no effect on parents' wealth accumulation and amount transferred. Thus, when bequests are accidental, the elasticity of bequests with respect to estate taxes equals zero.

A second possibility is that potential donors derive utility from their own consumption and from terminal wealth, a situation that is known as "joy-of-giving". Carroll (2002) has proposed a variant of this approach, pointing out that at the top of the wealth distribution bequests may be motivated by a "capitalist spirit", so that wealth itself enters the utility function. To illustrate the case, let's assume, as in Atkinson (1971) and Blinder (1975), that consumers maximize the following utility function:

$$U = \int_0^T \frac{c(t)^{1-\gamma}}{1-\gamma} e^{-\rho t} dt + \beta \frac{b_T^{1-\delta}}{1-\delta} e^{-\rho T} \tag{1}$$

where ρ is the discount rate, γ the elasticity of the marginal utility of consumption, δ the elasticity of the marginal utility of bequests, β the intensity of the bequest motive, T the length of life and b_T bequests net of estate taxes; furthermore we assume $\gamma > 0$, $\delta > 0$, $\rho > 0$ and $\beta \geq 0$. The intertemporal budget constraint can be written as:

$$\int_0^T c(t) e^{-rt} dt + \frac{b_T}{1-\tau} e^{-rT} = W \tag{2}$$

where r is the interest rate, τ the tax rate on bequests, and W the sum of initial wealth and the present discounted value of lifetime income. Maximization of (1) subject to the intertemporal budget constraint (2) delivers the following first order conditions:

$$c(t)^{-\gamma} e^{-\rho t} - \lambda e^{-rt} = 0 \qquad \text{for all } t$$

$$\beta b_T^{-\delta} e^{-\rho T} - \frac{\lambda}{1-\tau} e^{-rT} = 0$$

where λ is the Lagrange multiplier associated with the intertemporal budget constraint. If $\delta = \gamma$, we obtain the following expressions for $c(t)$ and b_T:

$$c_t = c(0) e^{\frac{(r-\rho)t}{\gamma}} \tag{3}$$

$$b_T = c(0) \left[\beta (1-\tau) e^{(r-\rho)T} \right]^{\frac{1}{\gamma}} \tag{4}$$

and substituting in the budget constraint we obtain an expression for initial consumption:

$$c(0) = \frac{r - \frac{1}{\gamma}(r-\rho)}{1 - e^{-\left(r - \frac{1}{\gamma}(r-\rho)\right)T} \left(1 - \left(r - \frac{1}{\gamma}(r-\rho) \right) \beta^{\frac{1}{\gamma}} (1-\tau)^{\frac{1-\gamma}{\gamma}} \right)} W \tag{5}$$

Combining (4) and (5) it is immediate to check that an increase in the estate tax rate τ reduces net bequests, i.e.:

$$\mathrm{d}b_T / \mathrm{d}\tau < 0.$$

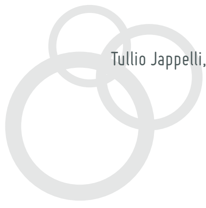
The negative effect of taxes on net bequests applies also if $\delta \neq \gamma$. Furthermore, Gale and Perozek (2001) show that the negative effect of taxes on net bequests carries over to the case of altruistic donors who care about their own consumption and the utility of their children, and transfer wealth to their heirs until the marginal utility of their

consumption equals the marginal utility of increasing children's consumption.[6] The negative effect of estate taxes on net bequests also arises when bequests are a payment for the services that donors receive from recipients, as in Bernheim, Shleifer and Summers (1985), because estate taxes raise the pre-tax price of the services and lower their demand (Gale and Perozek, 2001).

Even though the effect of taxes on net bequests is not ambiguous, the sign of the effect on gross bequests depends on how parents' wealth accumulation decision respond to estate taxes. In the joy-of-giving model described above, if the elasticity of the marginal utility of bequests is lower than the elasticity of the marginal utility of consumption ($\delta<\gamma$), consumption is a necessity while bequests are a luxury good. In this case an increase in taxes reduces gross bequests and increases consumption. Conversely, if bequests are a luxury good ($\delta >\gamma$), the proportion of lifetime wealth spent on bequests increases with wealth. In this case an increase in taxes increases gross bequests and reduces consumption. More generally, as pointed out by Kopczuk (2010), the effect of estate taxes depends on individual preferences and the particular bequest motive considered. The reason is that higher estate taxes impose both substitution and income effects. While the former reduces the incentives to accumulate, the latter reduces households consumption in all periods and therefore raises savings.[7]

6 The altruistic model suggests that bequests should be directed to the less fortunate children, and that the division of consumption within generations should be independent of the division of income. In practice one observes very often that bequests are divided equally, and that the division of income and consumption are not independent (Altonji, Hayashi and Kotlikoff, 1992). Thus, empirically the altruistic model of bequests is not supported by the data.

7 When bequests are altruistically motivated, the effect of estate taxes on saving depends on the parents' ability to commit to the level of future transfers (Gale and Perozek, 2001), although some simulation analyses show that an estate tax might reduce wealth accumulation and the capital stock (Caballé, 1995). When bequests are a payment for the services that the donor receives from the recipient, the effect of the estate tax on the size of the estate depends on the parent's price elasticity of demand for services and is in general ambiguous (Gale and Perozek, 2001).



4. Empirical evidence

To understand the effect of transfer taxes on the intergenerational transmission of wealth inequality one should answer the question of whether, and to what extent, estate taxes affect bequests. The answer to this question is limited. The literature offers very little empirical evidence on the effect of estate taxes on bequests. One crucial reason is the lack of data on donors. The few existing studies address the question of how estate taxation affects the overall size of estates. Kopczuk (2010) points out that this question “while straightforward to ask, is extremely difficult to answer,” and for two reasons. The first is to find a statistical design that is able to establish a causal link from estate taxes to the size of bequests. The second is that when taxes increase individuals’ attempt to avoid taxes also increases, so that any estimate of a change in estate taxes on the size of estates reflects the impact of taxes on wealth accumulation but also that on tax avoidance.

Three studies attempt to estimate the relation between estate taxes and bequests. Holtz-Eakin and Marples (2001) use data from the Health and Retirement Survey (HRS) and construct separate tax calculators for the Federal Estate Tax and each of the 50 State Death Taxes. The calculators are then used to impute an individual measure of projected estate taxes, using total assets as the tax base. Net worth is then regressed on this measure of taxes, controlling for other determinants of wealth accumulation. Holtz-Eakin and Marples recognize that their measure of estate taxes is endogenous, and use as instruments state of birth and state-by-state variation in the shape of the estate tax schedule. Even though the parameters estimates are sensitive to model specification, they find a negative relationship between wealth accumulation and the estate tax.

Kopczuk and Slemrod (2001) use estate tax return data from 1916 to 1996 to investigate the impact of the estate tax on reported estates. They find that an aggregate measure of reported estates is negatively correlated with summary measures of the level of estate taxation, holding constant other influences. As they note, the negative correlation reflects the impact of the estate tax on both wealth accumulation and avoidance, so the evidence is consistent with higher estate taxes increasing tax avoidance or reducing saving by the donor.[8] Joulfaian (2006) also uses US aggregate time series on federal revenues from the estate tax. His sample spans the 1951-2001 period, and also his findings suggest that estate taxes have a dampening effect on the reported size of taxable estates. From a quantitative point of view, all three papers reach fairly similar conclusion on a negative but small elasticity of estates on estate taxes, between -0.2 and -0.1.[9]

8 They also show estate tax rates that prevailed at age 45 (or 10 years before death) are more clearly negatively associated with reported estate size than the rate prevailing in the year of death.

9 This implies that if the marginal tax rate increases from 10 to 11 percent (a 10 percent increase) the size of bequests falls by between 1 and 2 percent.

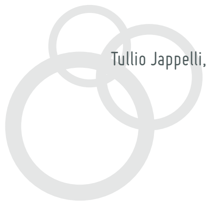
Using Italian survey data and exploiting a sequence of reforms culminated in the abolishment of estate taxes in 2001, Jappelli, Padula and Pica (2011) reach qualitatively similar conclusions. Their quasi-natural setting allows to estimate that the abolition of estate taxes increases the probability of doing a real transfer by 2 percentage points, and the square meters transferred by 5.5. None of these studies, however, is able to distinguish the effect of estate taxes on wealth accumulation from the effect on tax avoidance.

Assessing the extent of tax avoidance is the subject of a number of studies, which differ by the nature of the data and the methodology used. Nearly all studies on tax avoidance focus on the United States. A number of studies use aggregate data and compare wealth holdings with the estate transfers as recorded in tax returns. Wolff (1996) and Poterba (2000) compare the distribution of estates implied by tax forms data with that obtained combining wealth data from the Survey of Consumer Finances and data on individuals' mortality. The two studies reach nearly opposite conclusions, with the former study indicating that estate taxes miss 75 percent of the potential tax base, the latter that estate taxes capture almost the whole tax base. Eller, Erard, and Ho (2001) suggest that the approach undertaken in Wolf (1996) and Poterba (2000) is highly sensitive to assumptions on the allocation of deductions and credits, the differential mortality of married and unmarried individuals, and the first spouse in a couple to die.

Another approach taken by the literature is to use audit-data, since audit coverage is rather high in the US (Gale and Slemrod, 2001a). Eller and Johnosn (1999) compare pre and post-audit figures to assess the effect of auditing. They find that estate tax liability increased an estimated $559.8 million as a result of audit, a change that represented 5.5 percent of the pre-audit liability. Erard (1998) computes the tax gap (the difference between taxes owed and taxes paid) for the estate taxes, and estimates overall evasion to be 13 percent of the potential tax base.

Other studies focus on *inter vivos* transfers that can be used to avoid estate taxes to the extent that the tax treatment of gifts differ from that of bequest. Feinstein and Ho (2001) focus on asset management by the elderly. They show that at least some elderly plan estate transfers and establish trust funds; that those whose assets exceed the estate tax filling threshold have a significantly greater propensity to give gifts; that the average level of gift-giving is lower for those in poor health. This evidence is consistent with other studies, documenting that taxable gifts (and their timing) respond to tax considerations (Bernheim, Lemke, and Scholz, 2004; Joulfaian, 2004; Joulfaian and McGarry, 2004). More recently, Kopczuk (2007) show that there are large adjustments to the size and structure of estates that occur in the last months of life and argues that these adjustments reflect tax avoidance. Opposite conclusions are provided in McGarry (1999), Poterba (2001) who show that several taxpayers do not exploit annual gift exemptions.

The different conclusions provided by the various tax avoidance studies suggest ample heterogeneity in tax avoidance behavior between similar taxpayers, and do not allow to draw a conclusive picture on the extent of tax avoidance. Furthermore, the lack of international comparable data (and studies) prevents exploiting the differences between country's legislations to pin down the incentives to avoid estate taxes, to measure the extent of tax avoidance and to partial out the "pure" effect of taxes from the confounding effect of tax avoidance.



5. Concluding remarks

The effect of estate taxation on intergenerational transfers is the subject of intense debate among economists and policy makers, but the contribution of estate taxes to the total tax revenues is often small. In most countries it accounts for less than 1 percent of total revenues.[10] The difficulty to evaluate the effect of estate taxes on wealth accumulation, and intergenerational persistence has both theoretical and empirical reasons. From a theoretical point of view, one should note that despite large body of work on bequest motives, we have little consensus regarding reasons that people have for leaving bequests (see Kopczuk, 2010). Therefore, any theory of bequest (and gift) behavior requires making assumptions on the exact nature of the bequest motive.

The lack of suitable data, and in particular of detailed donors data, echoes the theoretical difficulties. Most of the few existing studies focus on the US, and mainly investigate the effect of transfer taxes on the size of bequests. The results point to small tax effects, elasticities of the order of 0.1-0.2 percent, which implies that an increase in the tax rate of 10% reduces bequests by only 1 percent. The evidence is broadly consistent to what is found for Italy, the only other country for which there exists a study investigating the effect of taxes on intergenerational transfers. An additional issue is that empirical studies cannot disentangle the effect of taxes from that of tax avoidance, for which the evidence is rather scattered and somewhat inconclusive. Finally, the lack of international comparable data, and the rather limited availability of national studies, prevents to exploit differences in legislation to evaluate the estate tax elasticities. A related question, which hinges on the difficulty of measuring the effect of estate taxes, is how much intergenerational transfers contribute to the lack of mobility between generations, and to what extent taxing transfers might help at promoting intergenerational mobility.

This work surveys a variety of institutional arrangements on estate taxes. We document a wide heterogeneity in the institutional settings. Despite this heterogeneity, the data show a general trend towards a reduction in transfer taxes. In OECD countries the revenues from transfers taxes went from 1% of total tax revenues in 1965 to 0.4% in recent years. Some countries eliminated transfer taxes (e.g. Sweden), raised exemptions, reduced the tax rates on estates. We take the fact that different institutional arrangements generate low (and similar) tax revenues as a broad indication that there is little room for redistribution through taxation of intergenerational transfers. However, the theoretical difficulty with understanding the exact nature of the bequest motive and the data limitation make it

10 Gale and Slemrod (2001b) have assembled an account of claims made in the estate tax debate, and group them in five categories: facts, rhetoric, value judgments, economic reasoning and informed speculation. Their angle on the debate is to recognize the uncertainty on the economic effects of estate taxes.

hard to establish a causal link between the widening wealth and income inequality which one observes in OECD countries and the vanishing bequest tax.

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Tables and Figures

Figure 1: Tax revenues from estate, inheritance and gift taxes as a percentage of total taxation in OECD countries

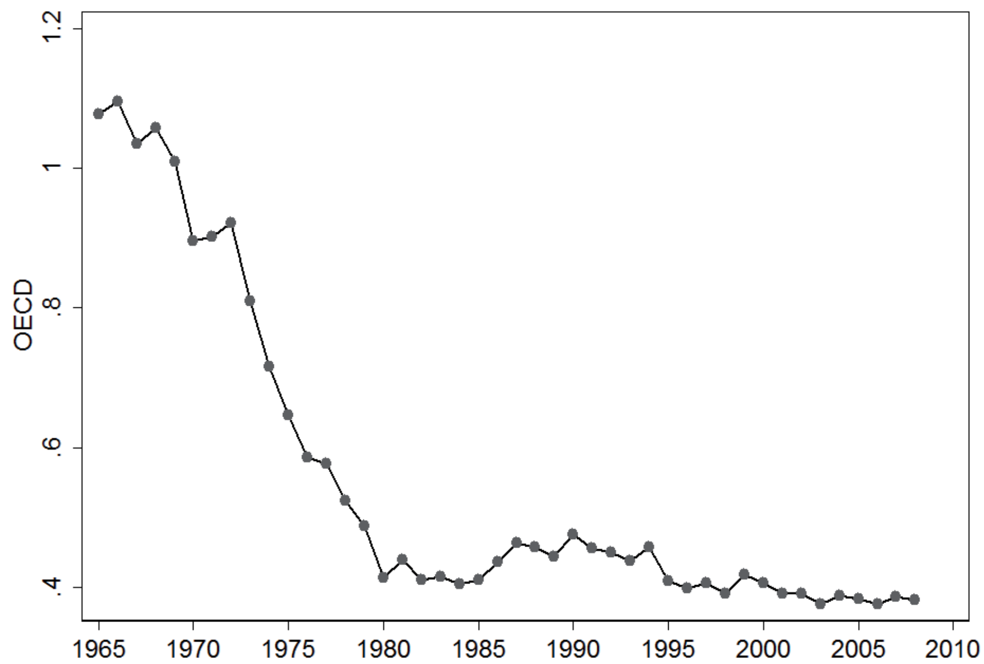
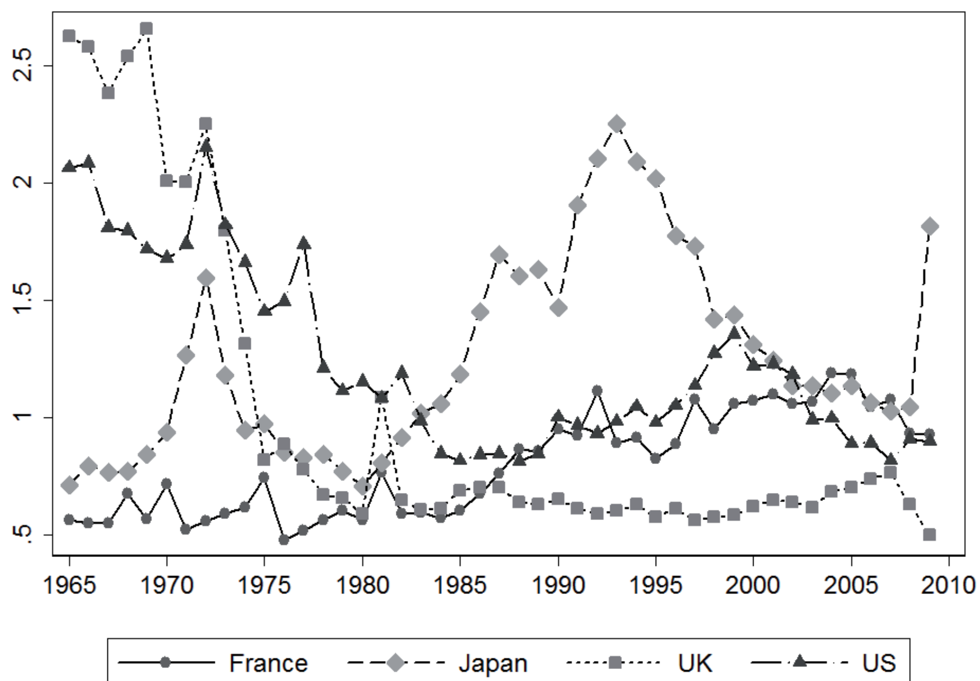


Figure 2: Tax revenues from estate, inheritance and gift taxes as a percentage of total taxation in selected OECD countries



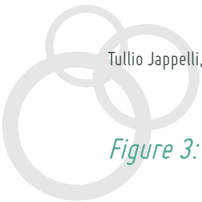


Figure 3: Tax revenues from estate, inheritance and gift taxes as a percentage of total taxation in selected OECD countries

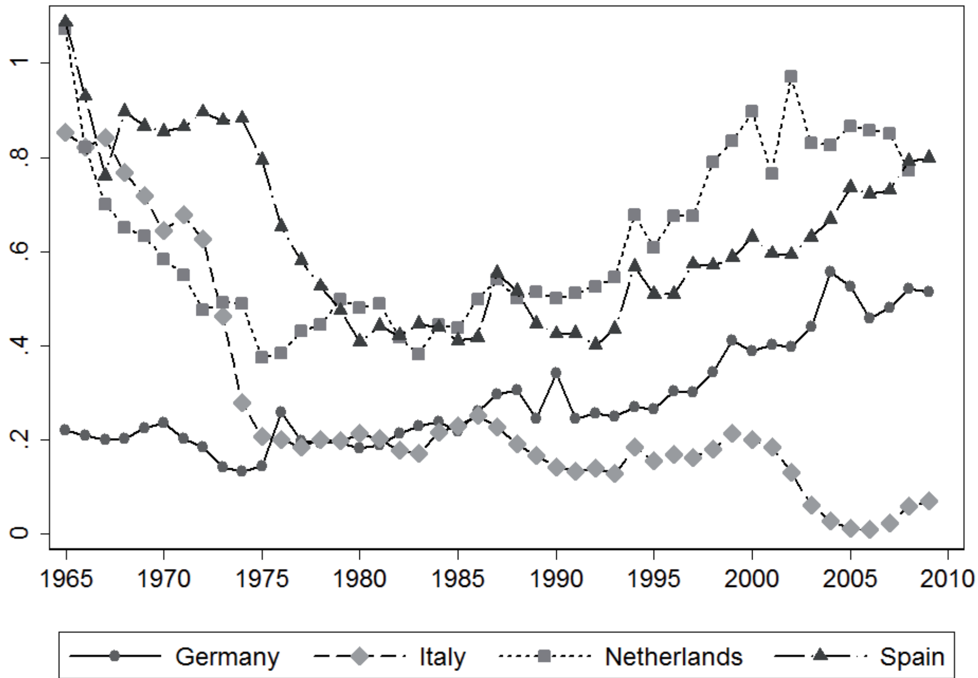


Figure 4: Tax revenues from estate, inheritance and gift taxes as a percentage of total taxation in selected OECD countries

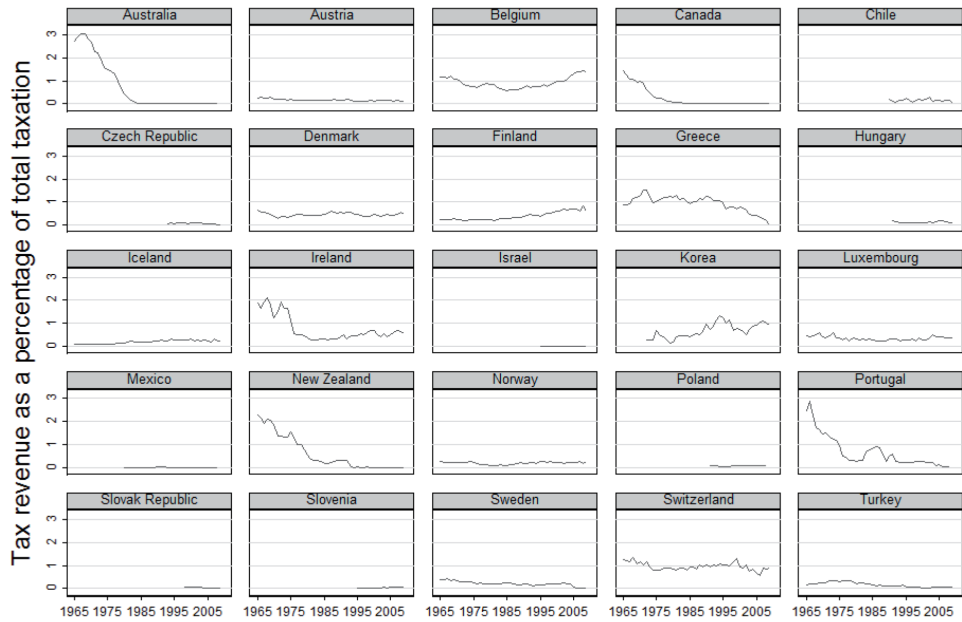


Figure 5: Tax revenues from estate, inheritance and gift taxes as a percentage of GDP in OECD countries

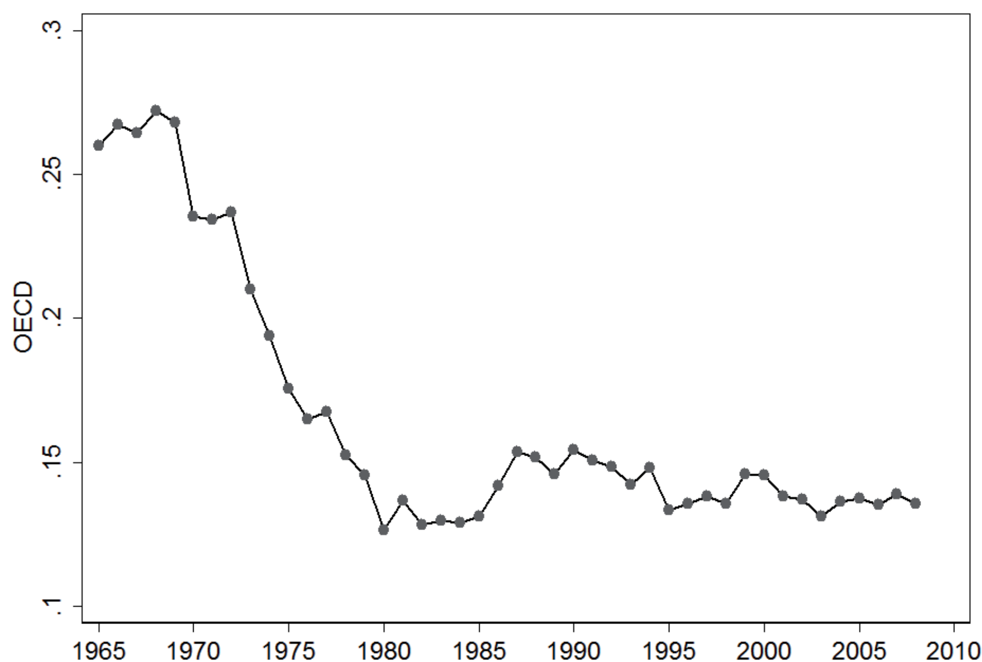


Table 1 Taxation on estate, inheritance and gift taxes in the United States under the Economic Growth and Tax Relief Reconciliation Act (EGTRRA) of 2001

Taxable Estate	Tax Liability
Not over $10,000	18 percent of such amount
Over $10,000 but not over $20,000	$1,800 plus 20 percent of excess over $10,000
Over $20,000 but not over $40,000	$3,800 plus 22 percent of excess over $20,000
Over $40,000 but not over $60,000	$8,200 plus 24 percent of excess over $40,000
Over $60,000 but not over $80,000	$13,000 plus 26 percent of excess over $60,000
Over $80,000 but not over $100,000	$18,200 plus 28 percent of excess over $80,000
Over $100,000 but not over $150,000	$23,800 plus 30 percent of excess over $100,000
Over $150,000 but not over $250,000	$38,800 plus 32 percent of excess over $150,000
Over $250,000 but not over $500,000	$70,800 plus 34 percent of excess over $250,000
Over $500,000 but not over $750,000	$155,800 plus 37 percent of excess over $500,00
Over $750,000 but not over $1,000,000	$248,300 plus 39 percent of excess over $750,000
Over $1,000,000 but not over $1,250,000	$345,800 plus 41 percent of excess over $1,000,000
Over $1,250,000 but not over $1,500,000	$448,300 plus 43 percent of excess over $1,250,000
Over $1,500,000 but not over $2,000,000	$555,800 plus 45 percent of excess over $1,500,000
Over $2,000,000 but not over $2,500,000	$780,800 plus 49 percent of excess over $2,000,000
Over $2,500,000 but not over $3,000,000	$1,025,800 plus 53 percent of excess over $2,500,000
Over $3,000,000	$1,290,800 plus 55 percent of excess over $3,000,000
Over $10,000,000 but not over $17,184,000	Additional 5 percent surtax

Table 2 Recent evolution of the U.S. estate tax

Year	Exemption (Millions)	Top Marginal Rate
2008	$2	45%
2009	$3.5	45%
2010	--	0%
2011 (Obama Law)	$5	35%

Table 3 Taxation on estate, inheritance and gift taxes in Italy

	Tax base	Exemption	Tax rate		Note
Law 346/1990	Total donor's Estate	125.000 euro for total estate	Brackets 125–175 175–250 250–400 400–750 750–1500 1500+	Tax rate 3 7 10 15 22 27	An additional progressive tax is levied on the share of the estate received by recipients who are not direct relatives of the donor or spouse
Law 488/1999	Total donor's Estate	175.000 euro for total estate	Brackets 175–250 250–400 400–750 750–1500 1500+	Tax rate 7 10 15 22 27	An additional progressive tax is levied on the share of the estate received by recipients who are not direct relatives of the donor or spouse
Law 342/2000	Estate share received by each recipient	175.000 euro for each recipient	4% for spouse and direct relatives 6% for relatives up to fourth degree, 8% for others		Tax rates on gifts are 3%, 5% and 7% respectively.
Law 383/2001	The inheritance tax was abolished in October 2001				
Law 296/2007	Estate share received by each recipient	1 million euro for each recipient	4% for spouse and direct relatives 6% for relatives up to fourth degree, 8% for others		Tax rates on gifts are 4%, 6% and 8% respectively.

Note. Tax brackets are measured in thousands of Euros.

Table 4 Taxation on estate, inheritance and gift taxes in France

TAXABLE INHERITANCE (€)	TAX RATE
Up to €7,699	5%
€7,699 to €11,548	10%
€11,548 to €15,195	15%
€15,195 to €526,760	20%
€526,760 to €861,050	30%
€861,050 to €1,722,100	35%
Over €1,722,100	40%

Table 5 Taxation on estate, inheritance and gift taxes in Germany

Class	Relationship	Exemption (€)	Tax Rate
I	Spouse	€500,000	7% - 30%
	Children and stepchildren	€400,000	
	Grandchildren	€200,000	
	Parents and grandparents, Great-grandchildren	€100,000	
II		€20,000	15% - 43%
III		€20,000	30% - 50%

Table 6 Taxation on estate, inheritance and gift taxes in The Netherlands

TAXABLE AMOUNT(€)	CATEGORY I	CATEGORY II	CATEGORY III
Up to €22,382	5%	26%	41%
€22,382 — €44,758	8%	30%	45%
€44,758 — €89,504	12%	35%	50%
€89,504 — €178,999	15%	39%	54%
€178,999 — €357,987	19%	44%	59%
€357,987 — €894,948	23%	48%	63%
Over €894,948	27%	53%	68%

Table 7 Taxation on estate, inheritance and gift taxes in Spain

TAXABLE INHERITANCE	TAX RATE
Up to €7,993	7.65%
€7,993 - €15,981	8.50%
€15,981 - €23,968	9.35%
€23,968 - €31,956	10.20%
€31,956 - €39,943	11.05%
€39,943 - €47,931	11.90%
€47,931 — €55,918	12.75%
€55,918 - €63,906	13.60%
€63,906 - €71,893	14.45%
€71,893 - €79,881	15.30%
€79,881 - €119,758	16.15%
€119,758 - €159,635	18.70%
€159,635 - €239,389	21.25%
€239,389 - €398,778	25.50%
€398,778 - €797,555	29.75%
Over €797,555	34.00%

Table 8 Allowances in Spain

CATEGORY	GROUP RELATIONSHIP	ALLOWANCE
I	direct and legally adopted descendants under 21 years of age	€47,859 max.
II	direct and legally adopted descendants of 21 years or more, spouse, and direct and adoptive ascendants	€15,957
III	siblings, uncles, aunts, nephews, nieces, and ascendants or descendants by marriage	€7,993
IV	cousins and other more distant relatives and unrelated persons or unknown heirs	none

Table 9 Actual transfer taxes to be paid in the case the "last" parent leaves 50.000, 300.000, 1 million Euros to 2 sons

Total Inheritance	50,000	300,000	1,000,000
Denmark	0	0	0
France	3,278	28,278	98,278
Germany	0	0	7,000
Ireland	0	0	41,979
Italy	0	0	0
Netherlands	1,328	17,353	82,693
Spain	0	12,761	96,531
U.S.	0	0	0

Note: For Germany we set the tax rate at 7% , for Spain we set the allowance at €47,859.

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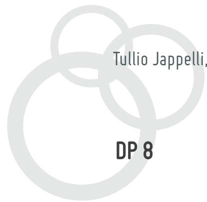

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Information on the GINI project

Aims

The core objective of GINI is to deliver important new answers to questions of great interest to European societies: What are the social, cultural and political impacts that increasing inequalities in income, wealth and education may have? For the answers, GINI combines an interdisciplinary analysis that draws on economics, sociology, political science and health studies, with improved methodologies, uniform measurement, wide country coverage, a clear policy dimension and broad dissemination.

Methodologically, GINI aims to:

- exploit differences between and within 29 countries in inequality levels and trends for understanding the impacts and teasing out implications for policy and institutions,
- elaborate on the effects of both individual distributional positions and aggregate inequalities, and
- allow for feedback from impacts to inequality in a two-way causality approach.

The project operates in a framework of policy-oriented debate and international comparisons across all EU countries (except Cyprus and Malta), the USA, Japan, Canada and Australia.

Inequality Impacts and Analysis

Social impacts of inequality include educational access and achievement, individual employment opportunities and labour market behaviour, household joblessness, living standards and deprivation, family and household formation/breakdown, housing and intergenerational social mobility, individual health and life expectancy, and social cohesion versus polarisation. Underlying long-term trends, the economic cycle and the current financial and economic crisis will be incorporated. Politico-cultural impacts investigated are: Do increasing income/educational inequalities widen cultural and political 'distances', alienating people from politics, globalisation and European integration? Do they affect individuals' participation and general social trust? Is acceptance of inequality and policies of redistribution affected by inequality itself? What effects do political systems (coalitions/winner-takes-all) have? Finally, it focuses on costs and benefi ts of policies limiting income inequality and its effi ciency for mitigating other inequalities (health, housing, education and opportunity), and addresses the question what contributions policy making itself may have made to the growth of inequalities.

Support and Activities

The project receives EU research support to the amount of Euro 2.7 million. The work will result in four main reports and a final report, some 70 discussion papers and 29 country reports. The start of the project is 1 February 2010 for a three-year period. Detailed information can be found on the website.

www.gini-research.org

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SEVENTH FRAMEWORK PROGRAMME

Project funded under the Socio-Economic sciences and Humanities theme.