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Helmuth Cremer and Pierre Pestieau

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Center for Operations Research
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The economics of wealth transfer tax

Helmuth CREMER[1] and Pierre PESTIEAU[2]

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Abstract

This paper discusses the merits of wealth transfer taxation on both efficiency and equity grounds. It first deals with the popular debate that is dominated by American economists. This debate concerns the US estate tax, which is one, among many, types of wealth transfer tax. After addressing the main issues prevailing in this debate and discussing the lack of popular support for such tax, the paper adopts a more theoretical approach to explore the pluses and the minuses of a wealth transfer tax. The main point is that the desirability of a wealth transfer tax depends on the motives of wealth accumulation and transmission.

Keywords: estate tax, inheritance tax, bequest motives.

JEL Classification: H21, H24

[1] IDEI, Toulouse School of Economics, France. E-mail: helmuth.cremer@tse-fr.eu
[2] Université catholique de Louvain, CORE, B-1348 Louvain-la-Neuve, Belgium; CREPP, Université de Liège, Belgium; PSE and CEPR. E-mail: p.pestieau@ulg.ac.be.

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1. Introduction

Taxes are rarely popular but those on wealth transfers are particularly controversial. A number of countries are without an inheritance or an estate tax and some contemplate to phase it out in the near future. Opponents of the "death tax" as they have dubbed it claim that it is unfair and immoral. It adds to the pain suffered by mourning families and it prevents small business from passing from generation to generation. Because of many loopholes, people of equivalent wealth pay different amounts of tax depending on their acumen at tax avoidance. It hits families that were surprised by death (and it is therefore sometimes called a tax on sudden death). It penalizes the frugal and the loving parents who pass wealth on to their children, reducing the incentive to save and to invest.

Supporters of the tax, in contrast, retort that it is of all taxes the most efficient and the most equitable. They assert that it is highly progressive and counterweighs existing wealth concentration. They also argue that it has few disincentive effects since it is payable only at death and that it is fair since it concerns unearned resources. For a number of social philosophers and classical economists, estate or inheritance taxation is the ideal tax.

Clearly, death taxation more than any other generates controversy at all levels: political philosophy, economic theory, political debate and public opinion. The truth probably lies between these two opposite camps. For economists this tax like all taxes should be judged against the two criteria of equity and efficiency to which one could add that of simplicity and compliance.

The paper is organized as follows. It first deals with the popular debate that is dominated by American economists and which only concerns the US estate tax, one, among many, type of wealth transfer tax. It also discusses the lack of popular support for such a tax. Then the paper adopts a more theoretical approach to explore the social desirability of a wealth transfer tax.[4] The main point is that the desirability of a wealth transfer tax depends on the motives of wealth accumulation and transmission.

2. The US estate tax debate.

2.1. 2010

"Give a dog a bad name, and hang him."

Few topics in US tax policy rival the estate taxation as a subject exhibiting simultaneously a considerable level of passion and a substantial degree of confusion. There like elsewhere tax analysts have a limited sense of humor. Yet, these last months they indulge themselves into the joke that 2010 may be the best year for wealthy Americans to die -- at least from their heirs' point of view. Strangely

[4] There exist a number of surveys on the normative analysis of wealth transfer taxation: Cremer and Pestieau [2006,2009], Boadway et al. [2009], Kaplow [2000], Kopckuk [2009], Masson and Pestieau [1997].

enough federal estate taxes are due to go to zero in 2010 unless Congress acts. Current law exempts the first $3.5 million of an individual's estate, and then taxes the value above that at a maximum rate of 45 percent. In 2010, the tax disappears entirely before reverting in 2011 to an exemption for only the first $1 million of the estate with a top rate of 55 percent above that level.

The pro and the con camps are furbishing their arms with the hope to push the President and the Congress to go their way. In that confrontation, the camp of the con is clearly the more vocal and the more aggressive. Just looking at the Google entries shows much more items from opponents to the estate tax than from advocates. In November 2009 a forum on the subject was organized in Washington by the conservative think tank American Enterprise Institute and the moderator started by the statement: "It comes roaring back for people who die in 2011. Some people joke about wealthy people being killed off by their heirs in 2010."

In this paper we will show what kind of tax on wealth transfer a social welfare maximizing government ought to choose. But before let us see the kind of arguments the two camps exchange, particularly the critics. Opponents to the estate tax remind us of these people who criticize a dish such as the “Coq au vin” arguing that the last one they tasted was made with corked wine, that they did not eat it because they are vegetarian and that it was too expensive. Those three points are not without relevance but they miss the point. The same can be said of the estate tax. Most of the critiques are addressed to the way it is administered rather than to the idea of taxing wealth transfers.

2.2. Standard critiques.

Critics contend the tax distorts investment and other choices of the rich, and also affects owners of small family businesses. It raises very little revenue at a heavy cost to the economy. It generates complex tax avoidance schemes. The hardest hit by the tax are farmers and small business people who work hard to pass on an enterprise of value to their children. From a number of recent publications, we have listed a number of charges addressed to estate taxation in a sample of writings that are often more partial and polemical than balanced and rigorous.[5]

The arguments against the estate tax.

- It reduces the stock of capital in the economy
- It is a leading cause of dissolution for family businesses
- It obstructs environmental conservation
- It is a « virtue tax » that penalizes work and thrift in favor of consumption
- It is ineffective at reducing inequality
- It has little effect on charitable giving.
- It raises very little, if any, net revenue
- It is complicated, unfair and inefficient

None of these charges is entirely irrelevant or completely wrong but at the same time is totally correct. It is true that estate tax does not raise considerable sums for the federal government. It makes up about 2% of total federal tax proceeds. But at the same time 2% is not that negligible. It is clear that inheritances only explain part of wealth inequality and that further wealth and income are not perfectly correlated. Thus even a well functioning tax on wealth transfers would only have a reduced impact on income inequality. It remains that it has some impact. It is well established that

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[5] Saxton [1998], Holtz-Eakin and Smith [2009], Neese and Lowe [2009].

estate taxation violates principles of horizontal equity. People with the same estate can pay different taxes depending on the asset structure, the fiscal engineering employed, the suddenness of death, the degree of conviviality within the family. Yes, but that calls for reforming the tax and not necessarily killing it. We all know that heirs can be asset rich but cash poor. This is the case of small business owners who can be stuck with impossible tax burdens. In this respect it should be remembered that family-owned businesses and farms may be valued in a special way that reflects the current use to which the property is put, rather than its market value. It is possible that the effect of estate tax deductibility on charitable contributions has been overstated. It remains that it has a positive effect and in any case fostering charitable contributions should not be one of the main missions of estate taxation. One of the tenets of a fair tax system is that income is taxed only once. Income should be taxed when it is first earned or realized, it should not be repeatedly re-taxed by government. The estate tax violates this tenet. However, in the theoretical section we show that this argument of double taxation is not correct. Further, capital gains income is not taxed until the income is "realized," that is, until the assets are sold. If an asset is held until the owner dies, the gain in the value of the asset is never subject to capital gains tax or any other tax. Finally there is the alleged harmful effect of estate taxation on the environment. It is hard to believe that some sort of arrangement between the heirs and the State could not avoid it.

It is interesting to observe a gap between popular publications and rigorous public finance economics. In the first ones, one can read statements such as:
« A full repeal of the death tax would create 1.5 million jobs. This is half the number of jobs President Obama claimed the $800 billion stimulus package would create--at one-fifth the price. Additional benefits from full repeal of the estate tax include:

- Increasing small business capital by over $1.6 trillion;
- Increasing the probability of hiring by 8.6 percent;
- Increasing payrolls by 2.6 percent;
- Expanding investment by 3 percent; and
- Slashing the current jobless rate by 0.9 percent. » [6]

It is needless to say that these forecasts are too rosy to be credible.

On the contrary most public economists while acknowledging the negative supply side effects of estate taxation would compare them with those of other taxes and would not recommend abolishing it. In any case, the final decision is in the hands of voters and in the US these do not seem favorable to estate taxation.

2.3. Unpopular taxes

A large numbers of surveys have been conducted in the US on whether or not the estate tax should be repealed. As these surveys show, estate taxes are not popular taxes, even though they typically hit only a minority of the population. They affect fewer than 2 percent of decedents and are therefore of no direct concern to most taxpayers.

[6] Dubay [2009]

Recently the AEI (2009) provided what can be considered as the most comprehensive collection of polls ever compiled on the subject of taxes. In this document there is a section on estate taxation with a list of surveys that are consistently in favor of the repeal of the tax. Let us mention two examples. In questions asked by CBS News/New York Times pollsters after the estate tax threshold was raised to $3.5 million, around four in ten said the tax should be eliminated altogether. In a 2006 question by Harris Interactive for the Tax Foundation, people said the estate tax was the worst federal tax, ahead of the federal income tax. In 2009, more people said the federal estate tax was not at all fair than gave that response about any of five other federal taxes.

Estate taxation is so unpopular that Auerbach (2006) writes, "it might make little sense at the moment to argue in favor of the estate tax in the United States". Most recent Public Finance or Public Economics textbooks do not even mention those taxes. Data are scarce with the exception of those coming from OECD. (See e.g. OECD (2008)).

On the issue of unpopularity, Frank (2005) argues that the way questions are phrased in opinion polls is of crucial importance. He shows that voters would not favor repealing the estate tax if they took into account the policy changes that such a reform would necessarily have to entail (raising other taxes, cutting government services or increasing federal borrowing). When asked just about repealing the tax without mentioning its repercussions, respondents do favor the repeal by almost three to one. When respondents are reminded that the revenue shortfall would have unpleasant repercussions, these respondents opposed repeal by almost four to one. There is also the way questions are framed. In a recent paper, Fatemi, et al. (2008) demonstrate that prior counter attitude reverses the expected framing effects. In sum, when respondents do not initially approve of an estate tax, favorable frames lead to more negative responses than do unfavorable frames.

Along the same line, Birney et al. (2006) analyze the polling data and show how the contours of public opinion were strategically used in the policy debate. When the issue was framed as a matter of fairness, misperceptions of self–interest and principled beliefs about fairness combined to yield apparently overwhelming support for repeal. However, when it was instead framed as a matter of priority, majorities supported estate tax reform options over repeal. Interest groups used the findings about public opinion in coalition–building and campaigns that changed the public image of repeal from extreme to mainstream. In sum, public opinion polls supporting repeal provided “running room” for politicians to vote for repeal. Krupnikov et al. (2006) examine whether the broad support for repeal of the estate tax is a result of citizen ignorance. They find that increasing information about the estate tax or politics in general has very different effects on Republicans and Democrats. They also show that standard surveys overestimate the extent of misinformation about the estate tax and conclude that “ignorance” is not a compelling explanation of why so many people support estate tax repeal.

To conclude this section, it is clear that the estate tax such as implemented in the US is subject to a very effective and active campaign of disparaging and is unpopular even among people who will never be subject to it, themselves or even their descendants. Let us mention some standard explanations for this puzzle. First, there is clearly the way survey questions are framed and the intense lobbying activities of the opponents to the estate tax. There is also, the way the tax is organized with its numerous loopholes. which give a feeling of huge horizontal inequalities. But clearly there is something more in it which is outside of the scope of an economist. The estate tax seems to touch upon family values that are so important in the

culture of American society and to remind people of something they want to forget about, death. As far as family values are concerned estate taxation is perceived as a tax on transactions within the family and therefore as a kind of intrusion in privacy. As to the denial argument the problem can be the same as that behind the annuity puzzle. Accordingly, very few people do not buy annuities even though this would be a rational move. This is because they want to avoid a double penalty: early death and wasted investment. This prospect is not by far compensated by the alternative outcome: late death and high return from annuities. In the case of estate taxation, people want to avoid the double loss: death and death tax. This prospect is so repugnant that many individuals neglect the simple fact that at death they will not have any estate deserving to be so taxed.

3. Types and importance of wealth transfer taxes.

3.1. Types of wealth taxation.

Most of the writings on wealth transfer taxation are based on the US setting. It is important to realize that the US estate tax is just one type of wealth transfer tax. There exist two major types of taxes levied on wealth: those applied sporadically or periodically on a person's wealth (net wealth taxes), and those applied on a transfer of wealth (transfer taxes). These taxes are presented on Table 1.

Table 1. Wealth Taxes

Form	*Examples*
Net Wealth Tax	Periodic
	Sporadic (capital levy)
Transfer Tax	
Transferor-based	Estate tax, gift tax, unified tax
Recipient-based	Inheritance tax, gift tax, accessions tax

Net wealth taxes are typically assessed on the net value of the taxpayer's taxable assets (i.e., value of assets minus any related liability), either sporadically (often known as "capital levies") or on an annual or other periodic basis. Net wealth taxation has almost disappeared everywhere except in very few countries including France. In this survey we study transfer taxes. These taxes are typically assessed on the net value of the taxable assets transferred, and fall into two basic categories: those levied on the donor, more precisely on his estate (typical in common law countries), and those levied on the recipient, namely the heir.

Donor-based taxes can be levied separately on *inter vivos* transfers (gift tax) and on transfers at death (estate tax), or together in a single integrated tax. Recipient-based taxes can also 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 US is somewhat unusual in applying an estate and gift tax.

3.2. Importance and evolution.

OECD (2008) provides data on wealth transfer taxation for the period 1965--2006. We will restrict our presentation to EU15, the US and Japan with Figure 1 and Table 2, which give the size and the evolution of the wealth transfer tax over the period 1965--2006. As it appears from these figures wealth transfer taxes play only a minor role in the total tax revenues of countries. Within our sample of OECD countries in 2006, Belgium, Japan and France reach with respectively 1.39, 1.06 and 1.04 percent, the highest shares in total tax revenues. In Portugal, by contrast, the share is less than 0.2 percent and is the lowest. Sweden and Italy have abandoned it. As one sees from Figure 1, both the US and the UK experienced a huge decline, from 2.62 to 0.74 and from 2.06 to 0.89 respectively over the last four decades. France has experienced an increase with a peak in 1995.

Table 2

Estate. inheritance and gift taxes has a percentage of total taxation

Figure 1

Estate. inheritance and gift taxes as a percentage of total taxation. 1965--2006

3.3. Estate versus inheritance tax

In general, estate taxation gives one total freedom to bequeath one's wealth to anyone or anything. Disinheritance is possible, as long as the decedent prepares an explicit will. Inheritance taxation, on the other hand, often comes with the legal obligation to bequeath one's wealth to one's children, if any, and with an equal sharing rule for most of the estate. Donors have some freedom to allocate a small fraction of the estate, but this fraction declines with the number of children. As the relation between recipient and donor gets more distant, the inheritance tax rate increases.

The relative merits of the estate-type and the inheritance-type taxation are clear. The first is simple and relatively easy to administer, leaving all discretion to donors to dispose of their wealth as they wish. This means that it is possible to compensate some children over others for differences in income or need, and that it is possible to disinherit one's children. By contrast, the inheritance tax is more equitable than the estate tax in that it lightens the tax load of large families. Yet, it does not allow for compensatory treatment of children with uneven endowments.

Basically, estate taxation reflects a concept of the family and of the state that is quite different from the one that governs inheritance taxation. If one trusts parents to be fair in disposing of their estate, and if one believes that intrafamily inequality is as important as interfamily inequality, then what is desirable is a combination of freedom of bequest and a very low estate tax.

4. What do we learn from public economic theory?

We now turn to what public economic theory teaches us as to the desirability of wealth transfer taxation. And we start by looking at the reasons why people save and bequeath.

4.1 Wealth accumulation and transfer motives.

It is now widely agreed that to understand the allocative and distributional effects of wealth and wealth transfer taxation one needs to have a better grasp of the saver's motives. Among these motives, one has to distinguish those which are purely selfish and those which concern intergenerational transfers (gifts and inheritance).

We examine briefly a number of motives that have been offered in the literature and sketch their implications. The first two motives are purely selfish. The last three concern bequests.

Consumption smoothing

This is the most traditional motive for saving over one's life-cycle, with or without uncertainty. It includes the need of replacement income after retirement, financing of children's education, precautionary saving and self-insurance. It is well known that this kind of saving decreases with social insurance and tends to be smaller when individuals are short-sighted. In case of imperfect annuity markets and "premature" death, part of life-cycle saving is not consumed and leads to what is called accidental or unplanned bequests. This form of bequests is by its nature unaffected by estate or inheritance taxation.[7]

Preference for wealth

It is today widely agreed upon that neither life-cycle saving nor bequests motives can explain the top tail of the wealth distribution. This brings us back to Max Weber's theory of "the spirit of capitalism" generalized by Kurz (1968): capitalists accumulate wealth for its own sake. To cite Weber (1958, p. 53): "Man is dominated by making of money, by acquisition as the ultimate purpose of his life. Economic acquisition is no longer subordinated to man as the means for the satisfaction of his material needs. This reversal relationship, so irrational from a naive point of view, is evidently a leading principle of capitalism." As argued by Carroll (2000): "the saving behavior of the (American) richest households cannot be explained by models in which the only purpose of wealth accumulation is to finance future consumption, either their own or that of heirs." Then, to explain such a behavior one has to assume that some consumers regard accumulation as an end in itself or as channel leading to power which is equivalent to assume that wealth is intrinsically desirable, what we call here "preference for wealth".

Pure dynastic altruism: altruistic bequest[8]

Parents care about the likely lifetime utility of their children and hence about the welfare of future generations. Consequently, wealthier parents tend to make larger bequests. Conversely, holding parent's wealth constant, children with higher labor earnings will receive smaller bequests. When there are no rules restricting freedom to testate, there is also a tendency for

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[7] Abel [1985], Davies [1981].

[8] Becker and Tomes [1979], Barro [1974].

parents to leave different amounts to different children, in order to equalize their incomes. Finally, pure altruism typically leads to the Ricardian equivalence: parents compensate any intergenerational redistribution by the government through matching bequests. In consequence, debt and pay-as-you go social security have no effect on capital accumulation.

Joy of giving: paternalistic bequest (bequest-as-last-consumption)[9]

Parents here are motivated not by "pure" altruism but by the direct utility they receive from the act of giving. This phenomenon is also referred to as "warm glow" giving. It can be explained by some internal feeling of virtue arising from sacrifice in helping one's children or by the desire of controlling their life. Formally, these bequests appear in the utility function as a consumption expenditure incurred in the last period of life. Ceteris paribus, they are subject to income and price effects but do not have any compensatory effect, namely they are not intended to smoothen consumption across generations. A crucial element is whether what matters to the donor is the net or the gross of tax amount. In the first case, we can talk of some type of altruism; in the second, we rather have a selfish attitude: the donor being concerned by what is given and not what is received.

Exchange-related motives: strategic bequests[10]

In their canonical form, exchange-related models consider children choosing a level of "attention" to provide to their parents. In exchange, parents "remunerate them" through a prospective bequest. The exchanges can involve all sorts of non-pecuniary services and they can be part of a strategic game between parents and children. Strategic bequests, as they were originally presented, imply that parents extract all the surplus from their children by playing them against each other. Strategic or exchange bequests depend on the wealth and the needs of the donor; they are not compensatory between parents and children and they do not need to be equal across children.

Existing evidence on wealth accumulation motives.

There is a long history of research on bequest motives[11]. Initially researchers obtained widely divergent estimates. For example, Kotlikoff and Summers (1981) estimated that only 20 percent of bequests are accidental. Hurd (1987) countered that households with children do not save more and, on this basis, concluded that bequests largely stem from life cycle savings. Nevertheless, over time the literature appears to have reached a fragile consensus. Altruistic transfers appear to represent a minority of wealth transfers. The remainder would be egoistic, purely accidental or based on either exchange considerations or selfish joy of giving.

4.2. Desirability of taxation.

We now turn to the desirability of taxation, particularly that of wealth transfer for each type of wealth accumulation motives. Our theoretical discussion of wealth taxation will be organized in two stages. First of all, we assume that there are neither bequest motives nor preference for

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[9] Bevan and Stiglitz [1979], Michel and Pestieau [2007].

[10] Bernheim et al. [1986], Cremer and Pestieau [1996, 1998], Kotlikof and Spivak [1981].

[11] .See Batchelder and Khitatrakun [2008]. See also Arrondel and Masson [2004], Bernheim [1991], Altonji et al. [1992], Kopczuk and Lipton [2007].

wealth. In that case, within the standard overlapping generations model there is no distinction between wealth and capital income. Then bequest motives and preference for wealth are introduced. In other words, it is recognized that saving is not motivated solely by retirement or precautionary concerns. We show that these other motives may have a significant impact on the rate and on the structure of taxation.

4.2.1. Pure life-cycle considerations.

In this subsection we examine two propositions that lead to zero taxation of capital income. The first one, called the Atkinson-Stigliz proposition, is discussed within the overlapping generations model. The second one, known as the Chamley-Judd theorem, is presented in a model with infinitely lived individuals.

4.2.1.1. The overlapping generation model

The overlapping generations model is the conventional setting to discuss capital income taxation when saving is exclusively motivated by consumption smoothing. It considers finitely lived generations that overlap, along with an infinitely lived government.[12] We use the two-period model, with labor supply in the first period and consumption in both the first and second periods. Saving from first-period earnings is used to finance second-period consumption, generating capital income that is taxable (in the second period). Since there is only a single period of work, the model can be viewed as shedding light on the taxation of saving for retirement. This model allows for introducing the Atkinson-Stiglitz (1976) (hereafter AS) proposition. It states that when the available tax tools include nonlinear labor income taxes, taxation of saving or of capital income is not optimal if two key conditions are satisfied: (1) preferences are (weakly) separable between consumption and labor and (2) all consumers have the same utility function.

To counter the AS result and its zero capital income taxation there are several angles of attack. The first one is clearly to question the assumption of separability or that of homogeneous preferences. Dropping the assumption of separability would not necessarily result in taxing capital income. Subsidizing is as likely. Introducing heterogeneity in preferences appears to be more promising. It has been done in different ways. There are at least three potential sources of heterogeneity that can lead to a tax on capital income: time discount rates, longevity and initial endowments. Saez (2002) questions the Atkinson-Stiglitz theorem on the basis of differences in time preferences across individuals with different skills. He shows that capital income taxation becomes desirable under the plausible assumption that those with higher earnings abilities discount the future less (and thus save more out of any given income). Cremer et al. (2009) use another stylized fact, namely the positive correlation between income and longevity to reach the same conclusion. Cremer et al. (2003) introduce an endowment (inherited wealth) as second unobservable characteristic. They show that if ability and endowment are positively correlated then it is efficient to tax capital income.

If we discuss the AS proposition in the standard OLG setting, we have to keep in mind that there is no guarantee that the optimal accumulation of capital is achieved. If the government does not have direct control of capital, it can use tax policy to affect the capital labor ratio. In that case, even with separability and identical utilities, a tax on capital income is needed. This in itself is quite intuitive. However, the design of the appropriate tax rule is more complex.

[12] Diamond [1975].

For instance, a need of additional capital accumulation, because the capital stock is below the modified golden rule level, will not necessarily lead to less taxation of capital income and more taxation of labor income. What matters is aggregate saving and this may depend much more on net of tax earnings than on the rate of interest.

Another variation of the standard model is to allow for uncertain earnings in the second period of life. Cremer and Gahvari (1995) have shown that if consumption decisions are to be taken before earnings uncertainties are resolved then the Atkinson-Stiglitz result fails to hold. Banks and Diamond (2009) discuss the implications of this result for capital income taxation. They argue that the case of uncertainty is similar to the situation (discussed above) where high wage individuals discount the future less. In the latter case, a high wage individual imitating someone with less skill saves more than a low wage individual. Taxing capital income is then an effective way to release an otherwise binding incentive constraint. Under uncertainty, this argument goes through. An individual who plans to earn less than the government planned amount in the event of high skill has a higher valuation of saving than the individual with the government planned income level. Consequently, a tax on savings continues to relax an incentive constraint. To illustrate this argument, Banks and Diamond (2009) point out that retirement age tends to be smaller for those with higher savings. Consequently, taxing savings discourages earlier retirement.

Uncertain earnings are a central element of what is known as the New Dynamic Public Finance. This literature is quite complex and leads to a number of interesting insights. However, the basic case for taxation of capital income is based on the same argument as in Cremer and Gahvari (1995).

4.2.1.2. Infinite horizon

In the above models there is a contrast between finitely lived individuals, who are intergenerationally disconnected, and the government which has an infinite horizon and a different time preference. Let us now look at another class of models wherein individuals are infinitely lived and have the same discount rate as the central planner. For the purpose at hand the central finding of this literature, due to Chamley (1986) and Judd (1985), is the optimality of zero capital income taxation in the long term.

The intuition behind this result can be understood by looking at the wedge that a capital income tax introduces between the intertemporal marginal rate of substitution (MRS) and the intertemporal marginal rate of transformation (MRT). Let us illustrate this through a simple example.

Take a tax rate of 30% and a rate of return of 10%. In a year, the wedge between MRS (=1+0.1(1-0.3)=1.07) and MRT (=(1+0.1)=1.1) is small and the distortion on the saving choice is negligible. After 40 years, the capital income tax generates a 67% wedge between consumption today and consumption in 40 years. As a matter of fact, as the time horizon T goes to infinity, the ratio between MRS and MRT tends to zero. Consequently, when the investor has a very long time horizon the capital income tax becomes extremely inefficient.

The Chamley-Judd no capital income taxation conclusion has become the standard rule for a number of public economists and particularly macroeconomists. It has also be challenged on various grounds. It relies on a set of strong assumptions. As with the Atkinson-Stiglitz result, a key question is how robust their theorem is to realistic changes in the model. There is first

the steady-state assumption; we know that during the transition capital income is subject to taxation. There is also the assumed equality between the private and the social discount rate and the absence of liquidity constraints. If one departs from these assumptions the tax is not any more equal to zero even in the steady state. Their model assumes also that there are no constraints on the tax tools. As shown by Coleman (2000) and Correia (1996) as soon as some taxes are constrained the zero tax result ceases to hold.

Uncertainty about earnings, along with borrowing constraints is shown to lead to a positive tax. See on this Chamley (2001) and Golosov et al. (2003). Finally let us mention a paper by Saez (2002) who introduces a progressive tax on capital income into the Chamley-Judd model. Under some plausible assumptions, he shows that such a tax is desirable; it drives all the large estates down to a finite level thus generating a truncated long-run wealth distribution.

To conclude this subsection, it seems that the case for a zero-tax on capital income when the only motive for saving is life-cycle consumption smoothing is rather weak. While Atkinson-Stiglitz, on the one hand, and Chamley-Judd, on the other hand, are often invoked to advocate a tax exemption on capital income, there appears to be a striking discrepancy between common beliefs and actual results. Under closer scrutiny, it is clear that either of these zero tax results does not apply under "plausible" circumstances.[13]

4.2.2. Wealth transfers with or without bequest motives.

4.2.2.1 Altruistic bequests

We first consider the case where individuals save for their own retirement consumption needs and for making sure that their children's welfare is sufficiently high. The standard way of dealing with this problem is to adopt the infinitely lived individuals model. Instead of considering an infinite series of years of one individual life we consider an infinite series of generations (a dynasty), which are linked by bequests. We assume non negative bequests, which corresponds to the liquidity constraint in the infinitely lived individuals model, and equality between the social and the individual discount factors. Then, one has the Ricardian equivalence implying the neutrality of the debt.[14] One also has the Chamley-Judd result. That is a zero tax on inheritance , but as we have just seen this result is subject to so many qualifications that it is not useful.

4.2.2.2. Paternalistic bequests

These bequests are also called "bequests as last consumption" or "joy of giving" bequests. To obtain the social optimum, there is the issue of whether or not individual utilities should be "laundered"[15]. Harsanyi (1995) and Hammond (1988) have advocated "excluding all external preferences, even benevolent ones, from our social utility function". Advocates of a utilitarian approach, on the other hand, argue that the social planner cannot paternalistically modify individuals' preferences. Besides laundering there is the question of what is the argument of

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[13] See Conesa et al. [2009].

[14] Barro [1974]

[15] Laundering in the case of altruistic bequests is a must as in its absence the weights given to children's utility would be higher than those given to their parents.

the parental utility function: before or after tax bequests. Quite clearly laundering and taking as argument the before tax bequests make a good case for a positive tax.

Bequests are potentially subject to a double tax: first, the tax on savings, and then the specific tax on transfers. This latter tax depends on the extent of laundering. When there is laundering, bequests lose their direct social utility and are thus subject to a relatively higher tax. In the absence of laundering it is not impossible to have a negative marginal tax. For example, Fahri and Werning (2009), who do not launder their utilities, study efficient allocations in a model with altruistic parents and focus on the implications of not laundering for estate taxation. They show that the optimal estate tax rate is likely to be negative.

4.2.2.3. Exchange-based bequests.

In a two period model we have three tax instruments: a proportional tax on earnings, interest income and inherited wealth with different rates. The overall tax on bequests may or may not be higher than that on future consumption. In other words, there is no particular reason to believe that the wealth transfer tax is positive. This will depend on the relative magnitude of the compensated demand derivatives which determine the overall tax on bequests and the tax on future consumption. For example if the demand for attention is much more elastic than that for future consumption, the tax on inheritance may turn negative. A particular case of such bequests is that of strategic bequests. (Bernheim, et al., 1985).

4.2.2.4. Accidental bequests

The accidental bequest case is not much different from the case without bequest. Saving is affected by survival probabilities. Accidental transfers are taxed at 100%, without affecting the supply of saving. The part of public spending (if any) which exceeds the proceeds of the transfer tax is financed through labor and capital income taxes.[16]

4.2.2.5. Preference for wealth

The case with preferences for wealth is close to that of paternalistic bequests with one exception: here individuals obtain the same utility from saving for retirement and for bequests. As in the case of paternalistic bequests, wealth can be viewed as consumption good and be taxed accordingly. The issue of laundering does also play some role here[17]. Let us remember that too much preference for wealth can lead the economy well above the Golden Rule.

Table 3. Desirability of a wealth transfer tax under alternative bequest motives.

Bequest motive	Laundering	Not laundering
Dynastic altruism	0/ +	NA
Joy of giving- net of tax	+	-/+

[16] Cremer et al. [2009], Blumkin and Sadka [2004].

[17] Michel and Pestieau [2007].

Joy of giving-before tax	++	+
Exchange based	NA	+/-
Accidental	NA	100%

NA: not applicable

Efficiency and equity.

The arguments developed so far are mostly concerned by efficiency considerations. The question dealt with is: given that some revenue has to be collected to finance public spending should we include a tax on wealth transfer in our tax toolbox? The answer to this question appears to be positive particularly in the case of accidental bequests and of joy of giving for before tax transfer. If we add the objective of redistribution, the case of wealth transfer taxation becomes even stronger.

In a recent paper Kopczuk (2009) adds another argument in favor of this tax. He posits that wealth concentration has negative social externalities and for that reason a tax that hits the top wealth is desirable.

Heterogeneity of preferences[18]

The theoretical literature on wealth transfer taxation tends to assume that individual have only one type of bequest motive. In fact real life society consists of individuals with different motives; either they exhibit different motives of accumulation or different individuals have different motives. Two cases have been studied. First, there is the case of a society with individuals being either selfish or altruistic. Second there is the case where the same individuals would leave bequests because of altruism and also in case of premature death. In those two cases, wealth transfer tax happens to be desirable.

5. Conclusions

Our survey was limited to the normative aspects of wealth taxation and it would seem from this overview that the case for not taxing wealth and particularly wealth transfers is rather weak. Our basic goal is to finance government services with a tax system that is as efficient, fair and painless as possible. On all counts, it is difficult to imagine a better tax than the estate tax. Every euro we collect from it is one less euro we need to collect from some other tax that is likely to be worse in at least one of these dimensions.

[18] Mankiw [2000], Michel and Pestieau [1998, 2000], Pestieau and Sato [2009], Pestieau and Thibault [2007].

There are a number of questions that we have not dealt with and which explain why wealth transfer taxation is today so unpopular that in some countries the political system is considering abolishing it.

There is first the issue of avoidance and evasion, which not only leads to poor tax yields but also lead to strong departures from both vertical and horizontal equity. Related to that, there is the issue of tax competition within countries and among countries. In federal states one observes a real race to the bottom regarding wealth taxation. In an economic union such as the European one there is an increasing tax competition for financial wealth and this includes wealth taxation. Another issue pertains to the alleged adverse effect of wealth taxation on family businesses.

Those three issues have a real political impact and yet there is little evidence on how important is their effect. What is sure is that they can be dealt with by reforming the tax on wealth transfer and not by repealing it.

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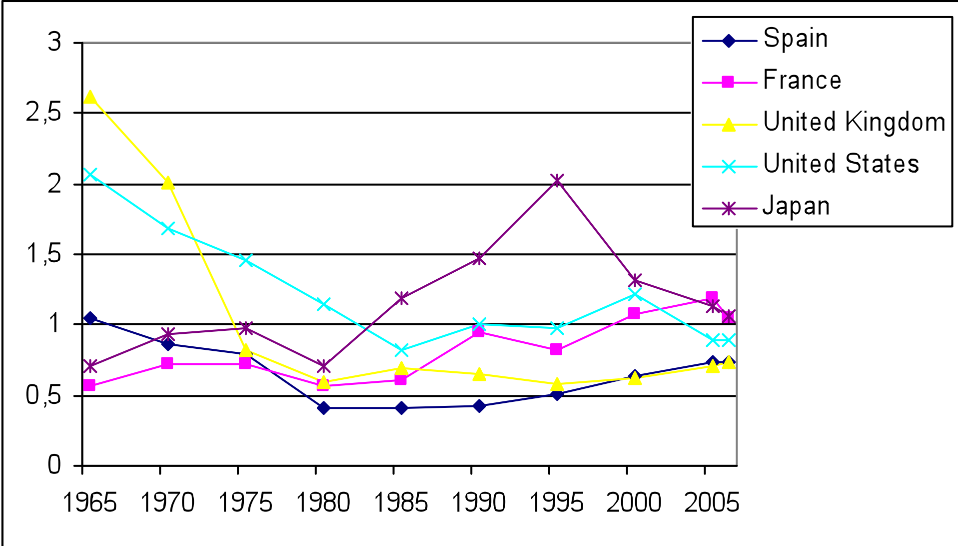
Table 2 Estate. inheritance and gift taxes has a percentage of total taxation

Estate. inheritance and gift taxes as a percentage of total taxation										
	1965	**1970**	**1975**	**1980**	**1985**	**1990**	**1995**	**2000**	**2005**	**2006**
Belgium	1.17	1.06	0.76	0.82	0.59	0.71	0.76	0.97	1.30	1.39
Denmark	0.65	0.36	0.38	0.44	0.47	0.56	0.47	0.45	0.40	0.43
Germany	0.22	0.23	0.14	0.18	0.22	0.34	0.26	0.39	0.53	0.46
Ireland	1.89	1.25	1.12	0.35	0.30	0.39	0.44	0.67	0.50	0.62
Greece	0.86	1.35	1.00	1.22	0.95	1.23	0.97	0.80	0.42	0.34
Spain	1.05	0.86	0.79	0.41	0.41	0.42	0.51	0.63	0.74	0.74
France	0.56	0.72	0.72	0.57	0.61	0.95	0.82	1.07	1.19	1.04
Italy	0.85	0.64	0.21	0.21	0.23	0.14	0.15	0.20	0.01	0.01
Luxembourg	0.38	0.48	0.32	0.32	0.27	0.29	0.27	0.27	0.39	0.39
Netherlands	1.08	0.59	0.37	0.48	0.44	0.50	0.61	0.90	0.86	0.86
Austria	0.26	0.23	0.19	0.17	0.17	0.14	0.11	0.01	0.14	0.12
Portugal	2.02	1.47	0.86	0.22	0.83	0.50	0.21	0.25	0.08	0.01
Finland	0.22	0.24	0.21	0.22	0.27	0.37	0.38	0.59	0.70	0.70
Sweden	0.39	0.36	0.25	0.21	0.26	0.19	0.16	0.22	0.07	0.01
United Kingdom	2.62	2.01	0.82	0.59	0.69	0.65	0.58	0.62	0.70	0.74
United States	2.06	1.68	1.45	1.15	0.82	1.00	0.98	1.22	0.90	0.89
Japan	0.71	0.94	0.97	0.71	1.18	1.47	2.02	1.31	1.14	1.06

Figure 1

Estate. inheritance and gift taxes as a percentage of total taxation



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