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# An Age-Differentiated Tax on Bequests

Pierre Pestieau\* Gregory Ponthiere†

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## Abstract

Although fiscal systems around the world tax bequests at rates that do not explicitly depend on the age of the deceased, there exist several theoretical reasons to use that observable characteristic to differentiate the tax rate on bequests. This paper presents four arguments supporting an age-differentiated tax on bequests, that is, a tax rate on bequests that is varying with the age of the deceased. A first argument, which relies on the standard utilitarian criterion, supports a tax rate decreasing with the age of the deceased on the grounds that, as age increases, the accidental (inelastic) component of bequests declines, making taxation less desirable on efficiency grounds. However, three other arguments - avoiding influence of the tax on testamentary dispositions, compensating the unlucky short-lived and redistributing towards orphans in need - all support a tax rate on bequests increasing with the age of the deceased.

*Keywords:* Bequest, taxation, age discrimination, mortality.

*JEL classification codes:* H21, H23.

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# 1 Introduction

Whereas the taxation of bequests is a widespread practice around the world, existing fiscal systems involve tax rates on bequests that do not - at least explicitly - depend on the age of the deceased.<sup>1</sup> If a person dies and leaves a bequest  $b$  to his descendant, this bequest will be, in a given country, taxed at the same rate, independently from whether the donator died at age 40 or 95.

Would it be socially desirable to make the taxation of bequest depend (explicitly) on the age of the deceased? If yes, on which grounds could one justify an age-differentiated tax on bequests? In which direction should the age of the deceased affect the rate at which bequests are taxed?

At this very beginning of our explorations, it should be stressed that an age-differentiated tax on bequests is far from an uncontroversial proposal. Clearly, such a proposal amounts to extend the scope of age-discrimination beyond the life of humans: under such an age-differentiated tax, not only living persons, but, also, dead persons, would be treated differently depending on their age.

Such an extension of the scope of age-discrimination may explain why no country in the world applies an age-differentiated tax on bequests. Another possible explanation may lie in the fact that there exist various good reasons to tax bequests differently with the age, but that those reasons justify age-differentiation in opposite directions. The absence of age-discrimination in that field would then reveal a lack of consensus among conflicting intuitions.

The goal of this paper is to examine some theoretical arguments supporting an age-differentiated tax on bequests. Whereas one may potentially consider lots of arguments, we will focus here on four arguments supporting an age-differentiation of the tax on bequests, that is, a tax rate on bequests that is varying with the age of the deceased. Those arguments are of different natures: some of them refer to efficiency concerns of the tax system, whereas other arguments refer to equity concerns (in particular compensation issues). More importantly, whereas some arguments support a tax rate on bequests that is *decreasing* with the age of the deceased, others support a tax rate that is *increasing* with the age of the deceased.

The first argument, formulated by Vickrey (1945), recommends a tax on bequest that is increasing with the age gap between the donator and the receiver, and, as such, can be regarded as supporting a tax rate on bequests increasing with the age of the deceased (to the extent that the age gap is increasing with the age of the deceased). According to Vickrey, such a schedule would avoid that the tax affects the form of testamentary dispositions.

The second argument, studied in Fleurbaey et al (2018), pushes, on the contrary, towards taxing bequests at a rate decreasing with the age of the deceased. That argument assumes that bequests include two components: on the one hand, an unconditional component (which would have been given by the

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<sup>1</sup>This does not mean, of course, that the tax rates that are applied do not account, indirectly, for the age of the deceased. For instance, if wealth accumulates (resp. decumulates) with age, and if bequest taxation is progressive, then the tax rate on bequest is implicitly increasing (resp. decreasing) with the age of the deceased.

parent independently from the age at which he dies), and, on the other hand, an accidental component (which would have been consumed by the parent provided he had a longer life). Given that the accidental component has a lower elasticity to the tax in comparison to the unconditional one, and given that its relative size is decreasing with the age, it is optimal, under the standard utilitarian social criterion, to tax bequests at a rate that is decreasing with the age of the deceased, on the grounds of pure efficiency concerns.

The third argument is not about efficiency issues, but about equity. That argument, formulated in Fleurbaey et al (2018), also starts from the decomposition of bequests between the unconditional and the accidental components. But instead of adopting a standard utilitarian social criterion, it takes as a social objective the ex post egalitarian criterion, a criterion that gives priority to the unlucky short-lived. From that perspective, and assuming that individuals care about what they would leave to their children in case of premature death, accidental bequests can be regarded as an instrument allowing for the compensation of the unlucky short-lived. Hence, given that the share of those accidental bequests is decreasing with the age, the compensation of the short-lived pushes towards a tax on bequest increasing with the age of the deceased.

Finally, the fourth argument reaches the same conclusion, but on the grounds of equity not towards the prematurely dead, but towards his family. The underlying idea is that the death of a person has material consequences on the surviving family that can be quite different, depending on the age of the deceased.<sup>2</sup> Clearly, if the deceased is old, it is likely that he has no family member in charge, whereas, if the deceased is younger, it is more likely that he had some children in charge (e.g. funding higher education). Hence, given that the needs of the surviving family members are decreasing with the age of the deceased, it is more fair to tax bequests at a rate increasing with the age of the deceased.

The rest of the paper is organized as follows. Section 2 presents Vickrey's (1945) argument. The standard efficiency argument for taxing bequests at a rate decreasing with the age of the deceased is discussed in Section 3. Then, Sections 4 and 5 consider egalitarian arguments supporting a tax on bequests that is increasing with the age of the deceased. Section 6 concludes.

## 2 Avoiding influence on testamentary dispositions

Within the public economics literature, one of the first arguments for taxing bequests differently depending on the age of the deceased is the one formulated by Vickrey (1945) in his seminal study. To be precise, the proposal made by Vickrey is not a tax based on the age of the deceased, but on the age-gap between the donator and the receiver. However, assuming that the age of the receiver is constant, and that the donator is the deceased, this proposal amounts to impose

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<sup>2</sup>Note that this argument may also be formulated in terms of the affective (rather than material) consequences of the death of someone. This point is discussed in Section 5.

a tax rate on bequests that is increasing with the age of the deceased.

Vickrey's argument is based on efficiency concerns. It relies on the idea that a uniform, age-invariant, tax on bequests has the undesirable feature of influencing the form of testamentary dispositions. More precisely, such a uniform bequest tax pushes the donator to transmit his wealth with *as few steps as possible* (e.g. directly to grandchildren or even great-grandchildren), in order to avoid taxation of the bequest. There is thus a danger that donators adopt particular transmission strategies in order to reduce the amount of taxes they have to pay, leading to tax avoidance and losses of fiscal revenues for the State.<sup>3</sup>

This influence of a uniform bequest tax on testamentary dispositions can easily be illustrated. Suppose that an elderly person would like to transmit his wealth  $b$  to his family. This elderly person has, for simplicity, one child and one grandchild. Under a uniform tax rate  $\tau$  on bequests, the transmission to the child will make the child receive  $(1 - \tau)b$ .<sup>4</sup> Then, if the child wishes to transmit the same amount of wealth to his own child, the net of tax bequest will now be  $(1 - \tau)^2 b$ . On the contrary, if the parent transmits the wealth directly to the grandchild, without any intermediate step, the amount transmitted is equal to  $(1 - \tau)b$ . As a consequence, if the elderly parent wants to transmit his wealth to his descendants, it is more profitable to transmit it directly to the youngest descendant, by minimizing the number of intermediate steps.

As the example illustrates, the uniform tax on bequests has the consequence of influencing the form of testamentary dispositions. Rich elderly persons will systematically opt for transmission with as few steps as possible. In order to avoid such an influence of the tax, Vickrey proposes that the tax rate on bequests is increasing with the age-gap between the donator and the receiver, to make the burden of the tax invariant to the number of steps in the succession. According to Vickrey (1945, p. 136), such a tax would imply that the same burden is imposed on the transfer of a given sum of money from one generation to another, regardless of the number of steps in which this is done.

To see how this proposal could make the tax on bequest neutral for testamentary dispositions, let us suppose that, in our previous illustration, there is a  $\ell$ -year age gap between each generation (i.e. the donator is aged  $2\ell$ , his child is aged  $\ell$ , and the grandchild is a newborn), and denote by  $\tilde{\tau}_\ell$  the tax rate on bequest when the age gap between the donator and the receiver is equal to  $\ell$ . If the parent adopts the strategy of transmitting the wealth directly to his grandchild, the amount transmitted is  $(1 - \tilde{\tau}_{2\ell})b$ , whereas, in case of a two-step transmission, it is equal to  $(1 - \tilde{\tau}_\ell)^2 b$ . Hence, there is indifference between the two transmission strategies if and only if  $\tilde{\tau}_{2\ell} = \tilde{\tau}_\ell(2 - \tilde{\tau}_\ell) \implies \tilde{\tau}_{2\ell} > \tilde{\tau}_\ell$ , that is, a tax on bequest that is increasing with the age gap between the donator and the receiver.

That argument can be easily translated into an argument supporting a tax on bequests that is increasing with the age of the donator, provided the age gap

<sup>3</sup>This possibility of fiscal arbitrage arises because the tax system does not usually take into account the frequency of transfers (i.e. their relation with past transfers or the likelihood of future transfers), but only their levels.

<sup>4</sup>For simplicity, we assume that the interest rate equals 0.

between the donator and the receiver is increasing with the age of the donator.<sup>5</sup>

The argument developed by Vickrey is a pure efficiency argument. The motivation for making the tax on bequests age-dependent is to clean that tax from any potential influence on testamentary dispositions. According to Vickrey, it is important that, at the time of writing the testimony, the donator focuses on the ultimate distribution of wealth that he wants to achieve, rather than on the best channels of transmission. Setting a tax on bequests that allows for no strategic fiscal arbitrages is thus likely to avoid fiscal manipulations and losses of fiscal revenues for the State due to tax avoidance.<sup>6</sup>

### 3 A utilitarian argument

In a recent paper, Fleurbaey et al (2018) consider the design of optimal taxation on bequests in an economy where there is inequality about the duration of life, some individuals dying prematurely, whereas other individuals enjoy a long life.<sup>7</sup> Assuming the absence of annuity markets, the possibility of premature death gives rise to what can be called "accidental bequests". Thus, in their framework, bequests include two components: on the one hand, an unconditional component (which is independent from the age at which the person dies), and, on the other hand, an accidental component (which is dependent on the age at which the person dies). Obviously, since the accidental component is made of what the deceased would have consumed in case of survival, that accidental component is decreasing with the age of the deceased.

In such a setting, is there an argument for taxing bequests differently depending on the age of the deceased? To answer that question, Fleurbaey et al (2018) consider the problem faced by a utilitarian government, which selects tax rates on bequests in such a way as to maximize the average of lifetime utility within the population, while keeping its budget balanced.<sup>8</sup> Obviously, it is difficult for a government to tax the two components of bequests (unconditional and accidental) separately. However, the government can observe the age at which individuals die, and can suppose that the accidental component of bequests is decreasing with the age of the deceased.

Fleurbaey et al (2018) show that, in such a setting, the utilitarian gov-

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<sup>5</sup>This is the case when the donator must wait longer in order to be able to transmit his wealth to a more distant descendant.

<sup>6</sup>In his article, Vickrey was also worried about the fact that, in case of direct transmission to very young descendants, lack of responsibility of them leads to establishing trusts, which may favor fiscal avoidance. Vickrey also points to the danger of individuals establishing a trust for the benefit of *unborn* individuals.

<sup>7</sup>By emphasizing heterogeneity in the duration of life, Fleurbaey et al (2018) differs from the existing literature on optimal taxation of bequests, such as Blumkin and Sadka (2004), Cremer et al (2012), Fahri and Werning (2013) and Piketty and Saez (2013), which focus on other dimensions of heterogeneity, such as individual productivity and parental altruism.

<sup>8</sup>As it is well-known since Fleurbaey et al (2014), the utilitarian social welfare function leads to quite counterintuitive policy recommendations when considering individuals with unequal longevity. This motivates the adoption of another social criterion by those authors (see Section 4).

ernment will opt for a tax on bequests that is decreasing with the age of the deceased. The intuition goes as follows. The unconditional component of bequests is planned by individuals, and, as such, is potentially highly sensitive to the level of the tax on bequests. On the contrary, the accidental component of bequests is less sensitive to the tax. This difference of degree of reactivity to the tax between the two components of bequests matters a lot from the perspective of optimal taxation, since the theory of optimal indirect taxation recommends, on efficiency grounds, to tax less the goods that are more elastic, and to tax more the goods that are less elastic, in order to minimize the deadweight loss due to the tax (see Ramsey 1927).<sup>9</sup>

Hence, given that the relative size of the accidental component of bequests decreases with the age of the deceased, it means that, from an efficiency perspective, it is better to tax bequests more when the deceased is younger, since, in that case, a larger part of the bequest is insensitive to the tax. On the contrary, it is better to tax bequests less when the deceased is older, because the accidental component of bequests is here smaller, making the bequest more elastic to the tax. This yields thus a tax on bequests that is decreasing with the age of the deceased.<sup>10</sup>

Quite interestingly, the efficiency argument developed here goes in the other direction than the efficiency argument developed by Vickrey (1945). The reason is twofold. First, Vickrey did not consider the distinction between the unconditional and the accidental components of bequests, and focused on the former only. Second, Fleurbaey et al (2018) do not consider the possibility for individuals to make arbitrages between different transmission strategies. In the light of this, those two efficiency arguments are largely complementary, since they focus on different dimensions of the reactivity of bequests to the tax.

## 4 Compensating the unlucky prematurely dead

Whereas the previous argument relies on a utilitarian social welfare criterion, one may raise serious doubts about its relevancy for assessing social situations involving unequal lifetimes. Clearly, as shown in Fleurbaey et al (2014), utilitarianism has a tendency, when facing situations of unequal lifetimes, to lead to quite counterintuitive recommendations. Actually, under standard conditions on preferences (concavity of temporal utility and time-additivity of lifetime welfare), long-lived individuals have, at the margin, a higher capacity to convert resources into well-being in comparison to short-lived individuals. As a consequence of this, utilitarianism recommends, in general, to redistribute resources

<sup>9</sup>On the theory of optimal indirect taxation, see Atkinson and Stiglitz (1980).

<sup>10</sup>Note that this argument is a second-best argument, since it assumes a limited set of policy instruments available to the government. As shown in Fleurbaey et al (2018), the first-best decentralization of the utilitarian optimum would require to tax accidental and unconditional components of bequests at distinct rates (respectively 100 % and 0 %). The tax based on the age of the deceased, which is discussed in this section, is only an *indirect* way to tax those bequests differently in the absence of tax instruments for the distinct components of bequests.

from short-lived individuals towards long-lived individuals.<sup>11</sup>

Such a redistribution is counterintuitive, since it goes against any intuition of compensation. Clearly, given that a large part of longevity inequalities are due to circumstances, there is a strong ethical support for compensating the unlucky short-lived. According to Fleurbaey's Principle of Compensation (Fleurbaey 2008), when well-being inequalities are due to circumstances, on which individuals have no control, the government should intervene to reduce those well-being inequalities. Obviously, the utilitarian criterion goes against the Principle of Compensation, since it leads to penalize short-lived persons twice: once by Nature (a shorter life) and once by Bentham (fewer resources). This motivated the search for other social welfare criteria, which do more justice to the compensation of the short-lived. One of those criteria is the ex post egalitarian criterion, proposed by Fleurbaey et al (2014). This criterion amounts to maximize the minimum lifetime well-being measured in realized terms (rather than in expected terms), that is, measured in terms of realized outcomes along the lifecycle.

When applied to the issue of bequest taxation, the ex post egalitarian social criterion leads to conclusions that are opposite to the ones derived under the utilitarian criterion. Actually, provided individuals care about how their lost savings are redistributed in case of premature death, accidental bequests can be regarded as an indirect instrument allowing for the compensation of the unlucky short-lived. Indeed, short-lived persons cannot, by definition, consume what they saved for their old days, but if they prefer those lost savings to be transmitted to their children, then, allowing them to transmit these to their children contributes to make them better off.

As shown in Fleurbaey et al (2018), considering the accidental bequest as an indirect way to compensate unlucky short-lived persons has important corollaries in terms of the optimal taxation of bequests. Clearly, since the accidental component of bequests becomes less and less sizeable with the age of the deceased, one way to bring some compensation to the short-lived is to tax bequests less when the deceased is younger, and more when the deceased is older. There is thus an ex post egalitarian argument for taxing bequests at rates that are increasing with the age of the deceased.<sup>12</sup>

It is important to stress here that this argument is a pure equity argument. Age-differentiated taxation of bequests is here justified on the grounds of compensating individuals for premature death. Taxing bequests differently based on the age of the deceased is here used as a way to reduce inequalities in lifetime well-being between individuals who have the luck of being long-lived, and unlucky individuals who die prematurely.<sup>13</sup>

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<sup>11</sup>One can regard this counterintuitive result as an illustration of the more general incapacity of utilitarianism to deal with heterogeneity. Similar criticisms were formulated against utilitarianism in the context of the handicapped (see Sen and Williams 1982).

<sup>12</sup>Note that, if individuals did not care about how lost savings are distributed in case of premature death, then this egalitarian argument for an age-differentiated bequest tax would not hold anymore.

<sup>13</sup>Note that, here again, that argument is a second-best argument. As shown in Fleurbaey

## 5 Redistributing towards orphans in need

Besides that equity argument, there exists another equity argument that also supports age-differentiated taxation of bequests. That argument does not rely on the idea of compensating a person for his own premature death, but considers, instead, the compensation of widow and orphans who are the collateral victims of the premature death of a person.<sup>14</sup>

This argument is very different from the previous one, since it involves a demand for justice not between the deceased, but among the surviving persons. Age-differentiated taxation of bequests is here regarded as a way to reduce inequalities among individuals in an economy where some persons face the premature death of someone else. However, this argument shares with the previous one its reliance on a non-utilitarian ethical criterion. Indeed, utilitarianism allocates resources while equalizing the marginal utility gains from the different uses of those resources, which would penalize individuals in widowhood, since those individuals are likely to exhibit a lower marginal utility of money due to the extreme sadness in which they are. Hence, here again, utilitarianism will generally lead to counterintuitive outcomes. Hence this argument will, like the previous one, assume an ex post egalitarian social criterion, which gives priority to the worst off in realized terms (and not in expected terms).

Note also that there exist several variants of that egalitarian argument, but, as we shall see, all these point to a taxation of bequest that is increasing with the age of the deceased.

The first variant of that argument is based on the simple idea that, within families, there exist strong solidarities, some members of the family benefiting from resources provided by other members. Children, for instance, benefit from resources provided by parents through their labor. Labor income from parents is used to provide food, clothing, education and leisure to the children. In that context, the death of a parent has a strong impact on the resources enjoyed by the rest of the family. Quite importantly, the impact of the premature death of the parent on the resources of the children (and, hence, on their well-being and their development) is likely to vary with the age of the children, and, hence, with the age of the parent (assuming a constant age gap). If the parent dies at young ages, this implies, in purely material terms, a bigger loss for (younger) children, in the sense that this penalizes more strongly their future development. On the contrary, if the parent dies at a quite old age, the material impact of the loss is smaller, since his children are, at that time, already quite autonomous, and do no longer depend on the resources of the parent.

In the light of this, it appears quite intuitive, from an ex post egalitarian perspective applied to the families of the deceased, not to tax all bequests at the

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et al (2018), the first-best decentralization of the ex post egalitarian optimum would require to tax the different components of bequests with different rates. As in Section 3, the age-differentiated tax on bequests is an indirect way to achieve this.

<sup>14</sup>This section refers to the "family" of the deceased in a broad sense (not in the genetic sense), and includes all persons affected by the death (either materially or emotionally).

same rate.<sup>15</sup> Indeed, given that the family in widowhood suffers from a larger material deprivation in case of a death when the deceased family member was younger. Actually, in that case, the needs of the family in widowhood are much larger. Hence, on distributive grounds, it makes sense, *ceteris paribus*, to leave to the family members a larger bequest net of tax. Therefore, it is intuitive, on equity grounds, to tax bequests at a lower rate when the deceased was younger, and at a higher rate when the deceased was older.<sup>16</sup>

Whereas the above argument considers only the material impact of a death on the family, there is another variant of that argument, which considers the emotional impact of a death, that is, its impact in well-being terms (independently from material resources). Clearly, as shown by happiness studies (see Blanchflower and Oswald 2004), becoming a widow has a major negative impact on subjective well-being.<sup>17</sup> This suggests that there exist strong welfare interdependencies between individuals, who care a lot about the survival of others.<sup>18</sup> Beyond the material impact of a death, the impact in terms of well-being is quite substantial.

Note that, if we adopt a simple life cycle perspective, the well-being loss due to the death of someone close is likely to be larger when the deceased is younger. The underlying intuition is that, in case of interest for joint survival, individuals are like "durable goods", who are enjoyed during longer time periods in case of a late death, and during shorter time periods in case of an early death.<sup>19</sup> Thus, in terms of compensation, even if all persons in widowhood face a strong deprivation, this deprivation is likely to be quantitatively larger when the deceased is younger (because in that case the opportunity cost of the non-lived coexistence time is larger).

In the light of this, an ex post egalitarian view applied to the surviving family members would, here again, recommend to tax bequests at rates that are increasing with the age of the deceased. The direction of age-differentiation is thus the same as when considering, in the first variant of the argument, the purely material deprivation due to the death.

## 6 Concluding remarks

In sum, this study examined four distinct arguments supporting age-differentiated taxation of bequests: two efficiency arguments (which recommend age-differentiation in opposite directions), and two equity arguments (which both support taxation

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<sup>15</sup>Note that this argument is, like the previous one, a second-best argument (i.e. assuming a limited set of policy instruments).

<sup>16</sup>We assume here implicitly that the degree of material dependence between family members is decreasing with the age of the deceased.

<sup>17</sup>Blanchflower and Oswald (2004) show that about \$100,000 per year would be required to compensate someone for the death of a spouse.

<sup>18</sup>Note that this is true whatever the precise form of interest for joint survival, i.e. altruistic or self-oriented (see Leroux and Ponthiere 2013).

<sup>19</sup>This argument may not hold for all ages of life. For instance, Broome (2017) discusses some reasons why the death of a young adult may be seen as worse than the death of a child.

increasing with the age of the deceased).

Given that those various arguments focus on some particular dimensions of the problem, it is not straightforward to aggregate all these, to have a global view on the optimal age-differentiation of the taxation of bequests. However, it seems that, on purely equity grounds, there is a strong support for a tax that is increasing with the age of the deceased, whatever we consider the compensation of the short-lived himself, or the compensation of the family in widowhood.

Having stressed this, it should be stressed that those arguments are qualitative arguments, and that the design of an age-differentiated taxation of bequests would require to go beyond qualitative claims, to consider, quantitatively, the various determinants of the optimal tax structure. Given the large variety of determinants and the difficulty to quantify and aggregate these, one should not underestimate the difficulty to set up an optimal age-differentiated tax on bequests. This difficulty may explain why no country in the world applies taxes on bequest that are differentiated with the age of the deceased.

## 7 References

- Atkinson, A., Stiglitz, J. (1980). *Lectures on Public Economics*. McGraw-Hill.
- Blanchflower, D., Oswald, A. (2004). Well-being over time in Britain and the USA. *Journal of Public Economics*, 88, 1359-1386.
- Blumkin, T., Sadka, E. (2004). Estate taxation with intended and accidental bequests. *Journal of Public Economics*, 88, 1-21.
- Broome, J. (2017). The badness of early death. In E. Gamlund and C. T. Solberg: *Saving Lives From the Badness of Death*, Oxford University Press.
- Cremer, H., Gahvari, F., Pestieau, P. (2012). Accidental bequests: a curse for the rich and a boon for the poor. *Scandinavian Journal of Economics*, 114, 1437-1459.
- Fahri, E., Werning, I. (2013). Estate taxation with altruism heterogeneity. *American Economic Review*, 103, 3: 489-495.
- Fleurbaey, M. (2008). *Fairness, Responsibility and Welfare*. Oxford University Press.
- Fleurbaey, M., Leroux, M.L., Ponthiere, G. (2014). Compensating the dead. *Journal of Mathematical Economics*, 51: 28-41.
- Fleurbaey, M., Leroux, M.L., Pestieau, P., Ponthiere, G., Zuber, S. (2018). Premature deaths, accidental bequests and fairness. Mimeo, Paris School of Economics.
- Leroux, M.L., Ponthiere, G. (2013). Optimal prevention when coexistence matters. *Journal of Population Economics*, 26 (3): 1095-1127.
- Piketty, T., Saez, E. (2013). A theory of optimal inheritance taxation. *Econometrica*, 81: 1851-1886.
- Ramsey, F. P. (1927). A contribution to the theory of taxation. *Economic Journal*, 37: 47-61.

Sen, A.K., Williams, B. (1982). *Utilitarianism and Beyond*. Cambridge University Press.

Vickrey, W. (1945). An integrated successions tax, in R. Arnott, K. Arrow, A. Atkinson and J. Drèze (1994) (eds): *Public Economics. Selected Papers by William Vickrey*, Cambridge University Press.