Bertrand Garbinti and
Jonathan Goupille-Lebret[1]

The Impact of Inheritance and Transfer Taxation on Economic Behaviours and Inequality: A Literature Review for France

Bertrand Garbinti
Banque de France
CREST.

Jonathan Goupille-Lebret
Paris School of Economics, INSEAD, GATE-LSE.

INTRODUCTION

French transfer taxes take the form of an inheritance tax, in which case the tax is computed on the net assets received by each successor. If taxes were imposed only at death, the simplest form of avoidance would be to transfer resources *inter vivos* (during lifetime). Hence the French inheritance tax is complemented by a gift tax.

Intergenerational transfer taxes have unique features that make them different from other types of direct taxation. Firstly, they are infrequent: they occur at death for inheritance and on rare occasions during lifetime for gifts. Such transfers can therefore result from long-term expectations of future tax policy and imply a long horizon of tax planning. These features make empirical identification of the effect of incentives particularly hard. Secondly, they affect the behaviour of both donors and recipients on possibly multiple dimensions. Thirdly, intergenerational transfer taxation applies almost exclusively to a small group of the population, the top wealth-holders, and may therefore play an important role in wealth inequality dynamics and social mobility, both in the short and in the long-term.

The objective of this article is to provide a review of the empirical literature related to intergenerational transfers and their taxation. However, it will only cover the empirical work based on French transfer taxation. A more complete literature review covering all aspects of intergenerational transfer taxation across countries can be found in Kopczuk (2013; 2017). Before going into further details, it is worth emphasising the structure of this review. We will begin in the next section with a brief description of intergeneration transfer taxation in France. Section 3 provides some stylized macroeconomic facts on the long-run evolution of inheritance and the share of inherited wealth in aggregate private wealth. Section 4 presents research related to the impact of inheritance and transfer taxation on inequality. Section 5 begins to review empirical evidence on the effects of transfer taxation and the final section offers some conclusions.

[1] This paper presents the authors' views and should not be interpreted as reflecting those of their institutions.

INHERITANCE TAXATION IN FRANCE

French inheritance laws have not changed significantly since the implementation of the Civil Code by Napoleon in 1804. In order to protect children from being disenfranchised, only part of the estate called the disposable portion ("quotité disponible") is freely disposable. The remaining part, called the reserved portion ("réserve héréditaire"), is automatically earmarked for the deceased's children.[2] The amount of reserved portion and the amount freely disposable depend on the number of the deceased's children. For n children, the reserved portion is set to n/n+1 of the estate and the disposable portion to 1/n+1.

Unlike the US, the French transfer taxation takes the form of progressive inheritance and gift taxes based on the net assets received by each recipient. The tax schedule and tax exemptions vary according to the relationship of the recipient to the deceased/donor. Table 1 reports the inheritance tax schedule for children in 2018. Marginal tax rates range from 5% to 45% after an exemption of 100,974 euros per child. Since 2007, surviving spouses have been fully exempted. Table 2 reports the inheritance tax schedule for collateral heirs (from a parallel line of the deceased's family) in 2018. The tax schedule is almost flat, with high tax rates ranging from 35% to 60% and low tax exemptions.

French transfer taxation is nowadays very different than it was at its creation. Until the beginning of the 20th century, gifts and inheritance were both taxed proportionally according to separate schedules. Inheritance taxation became progressive in 1901 and gifts taxation in 1942. From 1942 onwards, gifts and inheritances have been taxed according to a unified schedule. An estate-level tax exemption was created in 1952. It was applied to the overall estate and varied with the number of inheritors in direct line (children and ascendants). From 1960 onwards, tax exemptions were individualized and subject to numerous changes over the years. Figure 1 presents the evolution of the tax exemp-

[2] The surviving spouse is only considered as protected heir in the absence of children. In this case, the reserved portion accruing to the surviving spouse is equal to 25% of the estate.

Table 1

Inheritance Tax Schedule for Children in 2018

Inheritance brackets (in excess of tax exemptions)		MTR
0 €	8,072 €	5%
8,072 €	12,109 €	10%
12,109 €	15,932 €	15%
15,932 €	552,324 €	20%
552,324 €	902,838 €	30%
902,838 €	1,805,677 €	40%
Above	1,805,677 €	45%
Tax exemption:	100,974 €	

Source: Legifrance (2018).

Table 2

Inheritance Tax Schedule in Collateral Line in 2018

Types of heirs	Inheritance brackets (in excess of exemptions)	Marginal tax rate	Tax exemption
Siblings	Below 24,430 €	35%	15,932 €
	Above 24,430 €	45%	
Nephiews or nieces	Above 0 €	55%	7,967 €
First cousins	Above 0 €	55%	1,594 €
Others	Above 0 €	60%	1,594 €

Source: Legifrance (2018).

tion for children since 1952, both in current euros and in 2016 constant euros. As it happens, the most important increases in tax exemptions have generally been implemented to compensate for inflation and set them back roughly to their real value of 1951.

From 1942 to 1992, *inter vivos* gifts were fully integrated into the inheritance tax in order to achieve complete neutrality between gift and bequest. The same graduated tax schedules applied to both bequests and gifts; most importantly, all *inter vivos* gifts were "recalled" when the donor died and were added to the bequest left at death. As a result, each heir ended up paying taxes on the basis of the total estate that he or she received from the decedent. In 1992, the French government introduced the "ten year rule" whereby gifts made more than ten years before the time of death are no longer recalled in the estate. This rule implies that the tax exemption is no longer a lifetime exemption, but it can be renewed every ten years. This "ten year rule" became a "six year rule" from 2006 to 2011, and then a "fifteen year rule" from 2012 onwards.

EVOLUTION OF INHERITANCE IN THE LONG RUN IN FRANCE

To understand how inheritance and transfer taxation influence wealth inequality dynamics and economic behaviour, a good starting point may be to look at the long-run evolution of inheritance.

In his pioneering work, Piketty (2011) documents that the aggregate inheritance flow has followed a very pronounced U-shaped pattern over the 20th century. Indeed, the annual flow of inheritance expressed as a share of national income was rather stable or, if anything, slightly increased from 1820 to 1910, ranging from 20% in 1820 to 24% in the early 19th century. It subsequently followed a very marked U-shaped pattern. After a steep decline until 1950 (down to 5%), which corresponds to a division by 5 or 6, it multiplied by a factor of 3 or 4 and reached about 15% by 2010. The annual flow of inheritance has thus returned to its 1910 level (Figure 1).

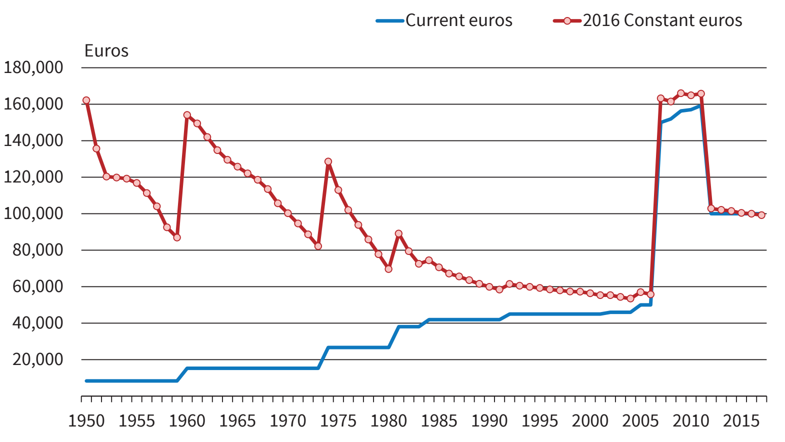
Alvaredo, Garbinti and Piketty (2017) emphasise the fact that this U-shape pattern is common (although more or less marked) to that found in other European countries like Germany, the UK and Sweden. In order to ascertain how this annual inheritance flow transmits into cumulated inheritance stocks, they compute the share of inherited wealth as a fraction of private wealth. Again, they find a clear U-shaped pattern. The share of inherited wealth was as large as 80-90% of aggregate wealth over the 1850-1910 period. It subsequently dropped to as little as 35-45% around 1970, and returned to 65-75% by 2010 (Figure 2).

INHERITANCE AND INEQUALITY

The strong U-shaped pattern of both the aggregate flow of inheritance and the share of inherited wealth observed in France over the 20th century may have several implications in terms of inequality and opportunity. In this section, we first present pioneering work on the "dilemma of Rastignac" (i.e., the issue of whether labour income or inheritance lead to the top social positions) and the evolution of the relative importance of inherited wealth versus self-made wealth in France over the 19th and 20th century. We then present research describing the "rentier society" that prevailed in France, and more precisely in Paris, all over the 19th century, jointly with analyses of both how this dynastic society could maintain its position infinitely in the absence of wealth shocks

Figure 1

Inheritance Tax Exemption for Children in France
1951–2017



Source: Authors' computations.
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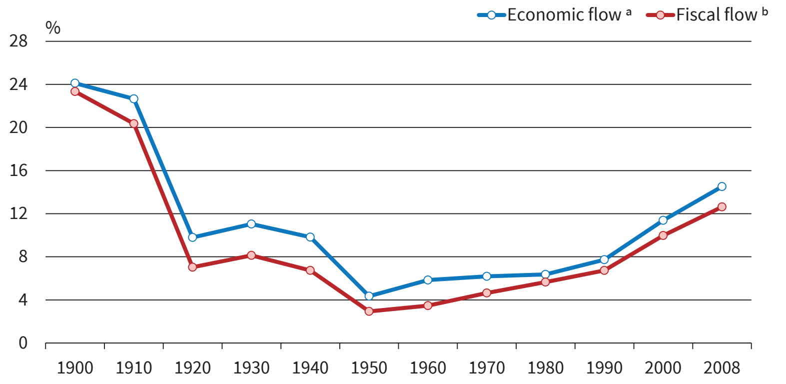
Figure 2

Annual Inheritance Flow as a Fraction of National Income in France

1900–2008

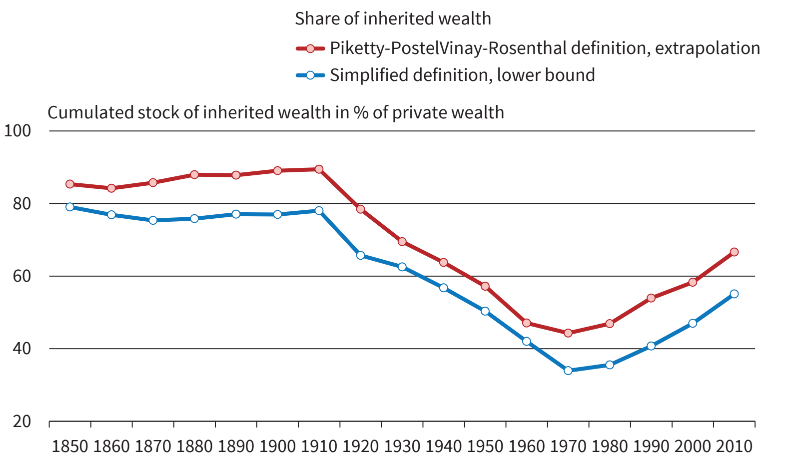


[a] Computed from national wealth estimates, mortality tables and observed age-wealth profiles.
[b] Computed from observed bequest and gift tax data, incl. tax exempt assets.
Source: Piketty (2011). © ifo Institute

Figure 3

Share of Inherited Wealth as a Fraction of Aggregate Private Wealth in France

1850–2010



Source: Alvaredo, Garbinti and Piketty (2017). © ifo Institute

and how the latter lead to its end in the early 20th century. Finally, to give insights into a more recent period, we present work showing that, inherited wealth played an increasingly important role in granting access to top social positions from the 1970s onwards.

To illustrate the difference between a "meritocratic society" and a "rentier society", Piketty (2010) calibrates a simple model to compute the resources accumulated by the 1% richest inheritors (the top 1 % inheritors) and compares it to resources attained by the 1% richest labour earners (top 1% labour earners) (Figure 3). This illustrates the "dilemma of Rastignac", named after the Balzacian character who has to choose between pursuing a professional career or marrying a rich heiress. Clearly, Figure 3 advocates the second choice for cohorts born in the 19th century. By contrast, it was almost impossible to become rich through inheriting or marrying a rich heir(ess) for cohorts born in the first half of the 20th century. Even the top 1% successors could not afford the lifetime resources that top 1% labour income earners would enjoy. This corresponds to what one would describe as a "meritocratic society", where individuals had to rely mostly on themselves to accumulate wealth. The 19th century was completely different: the top 1% inheritance resources were much higher (up to 2.5-3 times larger) than the top 1% labour earnings. This is what Piketty (2010) describes as a "rentier society". For the recent decades, top 1% inheritors and top 1% labour earners seem both to attain similar positions, although the model predicts a slight increasing trend in favour of inheritors for the future.

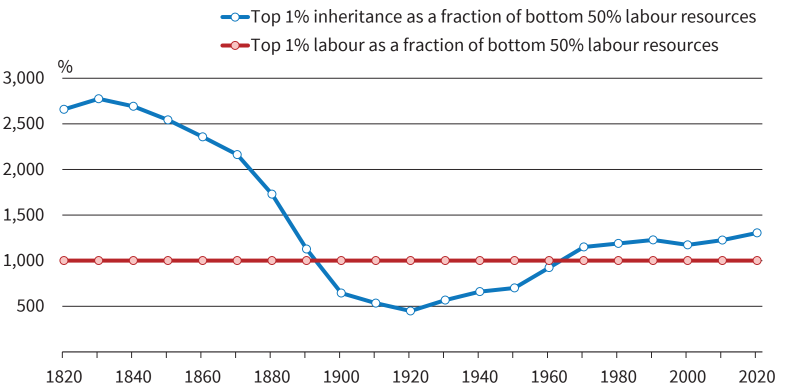
To better analyse what a "rentier society" could be, Piketty, Postel-Vinay and Rosenthal (2014) collect data from decedents' estates in Paris from 1872 to 1927. They define inheritors (or rentiers) as those whose assets at death are worth less than the capitalized value of the wealth they inherited, which means they consume more than their labour income. Savers are defined as those whose assets are worth more, which means they save from their labour income. They show that from 1872 to 1927, Paris was more a "city of rentiers" than a "city of opportunity". Inheritors accounted for about 10% of Parisians and owned roughly 70% of the wealth. Rentiers represented half of the "middle rich" (p90-p99) and over 70% of the "very rich" (p99-100). Spending only a part of the return to their inherited wealth allowed them to lead lifestyles far beyond what labour and individual merit alone would have permitted. This "rentier society" turns out to be self-sustaining: rentiers in the top wealth groups left to their heirs enough wealth to enjoy the same living standards as they themselves had experienced (and which represented approximately 90 times the average labour income of the time).

The next step is to better understand the driving forces that explained the transition from a period where inherited wealth was such a strong determinant of material well-being, to another period where high labour earnings are required to access the top social positions. A recent paper by Piketty, Postel-Vinay and Rosenthal (2018) sheds light on this issue. Over a longer period of analysis than previous studies, they calibrate a dynastic model of saving behaviour from data collected from Paris inheritance archives from 1842 to 1957. They highlight the differences between the two distinct historical periods. On one hand, the period until World War 1 was a period where taxes on income and estate were low, wealth grew rapidly and returns were sufficiently high that modest savings of capital income (about one third) allowed rich dynasties to maintain their consumption potential forever. On the other hand, the following period appears fully different with high taxes and low returns compared to the growth of labour income. These changes reduced the consumption potential of rich rentiers, who earned only one tenth of the income of their 19th century forebears. Negative shocks to wealth, high rates of taxation, and a rapid rise in labour costs seem to drive this huge decline. As expected, inherited wealth also declines, from 75% before World War I to 45% in 1947.[3] The authors show that the high rate of taxation of both estate and income could account for half of the decline in capital income, emphasizing the central role played by progressive taxation at the end of the rentier society.

Nonetheless, since the 1970s, inherited wealth seems to be playing a growing role in social mobility. Using fiscal and survey data, Garbinti, Goupille-Lebret and Piketty (2017) show that the probability of reaching the top wealth group for top labour earners has dramatically decreased since the 1970s. Indeed, while top 0.5% labour earners had a 39% probability to belong to the top 1% wealth group, they have just a 23% probability in 2012. The same holds for the top 1% labour earners whose probability of reaching the top 1% wealth group decreased from 29% to 17%.

Figure 4

Top 1% Successors vs Bottom 50% Labour Income Earners
Cohorts born between 1820-2020



Note: For the top 1% of cohorts born between the 1900s and the 1950s the corresponding lifetime resources were a lot smaller than those one could attain by making the way to the top 1% of the labour income hierarchy.
Source: Piketty (2010).
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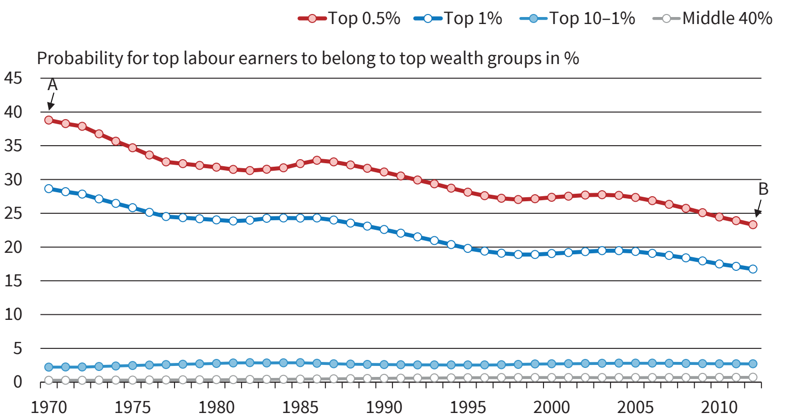
Figure 5

Probability for Top Labour Earners to belong to the Top 1% Wealth Group
1970–2012



Examples A: Top 0.5% labour earners have a 39% probability to belong to top 1% wealth group.
B: Top 0.5% labour earners have a 23% probability to belong to top 1% wealth group.

Note: The figure shows that the probability for top labour earners to belong to top wealth groups has declined regularly since the 1970s.
Source: Garbinti, Goupille-Lebret and Piketty (2016).
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BEHAVIOURAL RESPONSES TO TRANSFER TAXATION

The previous section highlighted how inheritance and transfer taxation may have an important impact on overall wealth inequality and social mobility. Intergenerational transfers and their taxation may also impact the economic incentives of both the recipients and the deceased/donors. In this section, we first present how inheritance taxation may affect the probability of giving and the wealth accumulation behaviour of the deceased during lifetime. We then review empirical work on the impact of receiving a transfer on labour supply, entrepreneurship and homeownership.

An important question regarding behavioural responses to inheritance taxation is its effect on wealth accumulation. Goupille-Lebret and Infante (2017) investigate this issue by exploiting discontinuity in the taxation of life insurance assets trans-

[3] Which is nonetheless still high if we keep in mind the huge wealth shocks that occurred from WW1 to WW2.

mitted at death. Interestingly, these assets benefit from a preferential tax scheme that depends on both the age at which contributions to the life insurance account are made, and (because of changes in the legislation) on the opening date of the account. They show that the French inheritance tax system induces three different behavioural responses: i) inter-temporal shifting responses (people accumulate wealth earlier in time when it is less taxed), ii) shifting among asset portfolio (people invest more in assets that are less taxed) and iii) real responses (people reduce wealth accumulation in order to consume more when it is relatively more taxed). While they document several responses to inheritance taxation, they show that their magnitude is limited. As a result, the impact of inheritance taxation on wealth accumulation turns out to be limited.

Apart from wealth accumulation, inheritance taxation may also influence the probability of giving while alive. France implemented a reform in 1992 that made *inter vivos* gifts partly tax-free (see section 1). This reform provides an incentive to transfer *inter vivos* rather than at death in order to reduce overall tax liabilities. Arrondel and Laferrère (2001) evaluate the impact of this reform and show that the probability of giving is higher for parents whose wealth is taxable. This highlights the fact that donations are not only responsive to gift tax, but also to inheritance tax.

As emphasized by Kopczuk (2013), the effect of receiving an inheritance on the labour supply of recipients is a first order question. Such an effect represents a potential driver of efficiency costs induced by transfer taxation.[4] In France, some papers study the effect of intergenerational transmissions on labour supply and entrepreneurship. Garbinti and Georges-Kot (2016) study the effect of receiving an inheritance on the decision to exit the labour market. Comparing inheritors the year when they receive their bequest with inheritors who will inherit in the next two years, they show that the probability of current retirement is 40% higher among current inheritors. They also document heterogeneity, showing that this effect is stronger for individuals who are the less educated, working part-time or with higher risk-aversion. Arrondel and Masson (2011) and Arrondel, Garbinti and Masson (2014) document a significant increase in the probability of creating a firm after the receipt of a gift, particularly for younger households. Taking a historical perspective from 1945, Bauer, Garbinti and Georges-Kot (2018) also compare current inheritors with future inheritors and show that from 1945 to 1994, salaried men are significantly more likely to become self-employed on the year of receipt of their inheritance than in the preceding five years. As it turns out, this effect decreases over time: while inheritance receipt coincides with an average threefold increase in the rate of entry into self-employment over the years 1945-1964, it only induces an increase of about 80% in this rate over the years 1985-1994. For subsequent periods, the average effect keeps on decreasing and is no longer significant.

Finally, receiving a transfer may also affect homeownership. Spilerman and Wolff (2012) and Arrondel and Masson (2011) investigate this issue. They find that the probability of getting on to the property ladder significantly increases with the receipt of a gift or an inheritance. Arrondel, Garbinti and Masson (2014) confirm this finding, showing a stronger effect on younger households and after the boom in housing prices in the 2000s. Focusing on intra-generational inequality within young households, Bonnet, Garbinti and Grobon (2018) show that transfers such as gifts and inheritances may explain a significant part of the rise in the homeownership rate of the high-income households, while this rate decreases for low-income households whose parents are unlikely to provide them a sufficient financial support, especially after the housing price boom.

CONCLUSION

This article presents a review of the impact of inheritance and transfer taxation on economic behaviour and inequality in France. The major conclusions of this review are that the aggregate flow of inheritance and the share of inherited wealth observed in France over the 20th century have followed a very strong U-shaped pattern. These aggregate dynamics have several implications in terms of inequality and opportunity. During the 19th century, the French society can be characterised as a "rentier society", in which inheritance plays a central role in the perpetuation of wealth inequality. The First World War sees the end of the rentiers and the development of a more meritocratic society. These changes are induced by the conjunction of three main factors: negative shocks to wealth, high rates of taxation, and a rapid rise in labour cost. Since 1970, a new dynamic seems to be at work, with inheritance making a gradual comeback.

Inheritance taxation affects economic behaviour through multiple channels. It impacts the wealth accumulation and giving behaviour of the deceased (while alive), although the magnitude of behavioural responses are limited. The receipt of an inheritance or a gift affects recipients' behaviour through three main channels: labour supply, entrepreneurship and homeownership.

REFERENCES

Arrondel L., B. Garbinti and A. Masson (2014), "Inégalités de patrimoine entre générations: Les donations aident-elles les jeunes à s'installer?", *Economie & Statistique* 472–473, 65–100.

Arrondel L. and A. Laferrère (2001), "Taxation and wealth transmission in France", *Journal of Public Economics* 79 (1), 3–33.

Arrondel L. and A. Masson (2011), "Taxer les héritages pour accroître la mobilité du patrimoine entre générations", *Revue française d'économie* XXVI (2), 23–72.

Alvaredo F., B. Garbinti, T. Piketty (2017), "On the Share of Inheritance in Aggregate Wealth: Europe and the USA, 1900–2010", *Economica* 84 (334), 239–260.

[4] For instance, if receiving an inheritance reduces labour supply then a change in inheritance taxation alters labour supply.

Bauer A., B. Garbinti and S. Georges-Kot (2018), “Financial Constraints and Self-Employment in France, 1945–2014”, I*nsee Working Paper*.

Bonnet C., B. Garbinti and S. Grobon (2018), “Inégalités d’accès à la propriété et de richesse immobilière au sein des jeunes en France, 1973–2013“, *Economie et Statistique*, forthcoming.

Garbinti B. and S. Georges-Kot (2016), “Time to Smell the Roses? Risk aversion, the timing of inheritance receipt, and retirement”, *Insee Working Paper* no. G2016/01.

Garbinti B., J. Goupille-Lebret and T. Piketty (2017), “Income Inequality in France, 1900–2014: Evidence from Distributional National Accounts (DINA)”, *WID.world Working Paper* Series no. 2017/4.

Goupille-Lebret J. and J. Infante (2017), “Behavioural Responses to Inheritance Tax: Evidence from Notches in France”, *INSEAD Working Paper* no 2017/76/EPS.

Kopczuk W. (2013), “Taxation of intergenerational transfers and wealth”, in A. Auerbach, R. Chetty, M. Feldstein and E. Saez, eds., *Handbook of Public Economics*, vol. 1, Elsevier, 329–90.

Kopczuk W. (2017), “U.S. capital gains and estate taxation: status report and directions for reform”, in A. Auerbach and K. Smetters eds., *The Economics of Tax Polic*y, Oxford University Press, Oxford, 265 – 291.

Piketty T. (2011), “On the Long–Run Evolution of Inheritance: France 1820–2050”, *Quarterly Journal of Economics* 126 (3), 1071–1131.

Piketty T. (2010), “On the Long-Run Evolution of Inheritance: France 1820–2050”, *PSE Working Paper.*

Piketty T., G. Postel–Vinay and J. L. Rosenthal (2014), “Inherited vs self-made wealth: theory and evidence from a rentier society (Paris 1872–1927)”, *Explorations in Economic History* 51(1), 21–40.

Piketty T., G. Postel-Vinay and J. L. Rosenthal (2018), “The End of the Rentiers: Paris 1842–1957”, *WID.world Working Paper series* no 2018/1.

Spilerman S. and F. C. Wolff (2012), “Parental Wealth and Resource Transfers: How they matter in France for Home Ownership and Living Standards?”, *Social Science Research* 41(2), pp. 207–223.