Taxation of Couples and Marital Status – Simulation of Three Reforms of the Marital Quotient in France

Guillaume Allègre*, Hélène Périvier* and Muriel Pucci**

Abstract – In France, married couples or couples in civil partnerships must declare their resources jointly and are allocated two tax units. This tax system, referred to as the marital quotient, represents a financial package of around 10 billion euros. Using the Ines microsimulation model, we simulate three reforms of this system: an individualisation of taxation, a reduction of marital quotient to 1.5 tax units while allowing married couples/couples in civil partnerships to opt for individual taxation and, finally, the capping of the marital quotient at the same level as the family quotient. Individualisation results in the highest tax gain (around 7 billion), compared with 3.8 billion when the marital quotient is reduced to 1.5 tax units and 3 billion with the marital quotient cap. With these reforms, 46%, 45% and 7% of couples lose out, respectively. The median losses correspond to 1.5%, 1.3% and 2.6% of the disposable income of the households concerned, respectively. Finally, 60%, 64% and 83% of the losses are in the last three standard of living deciles, respectively.

JEL Classification: H24, H31, D31
Keywords: microsimulation, income tax, marital quotient

**Sciences Po, OFCE (guillaume.allegre@sciencespo.fr; helene.perivier@sciencespo.fr); ** CES, Université Paris 1 (muriel.pucci@univ-paris1.fr)*
We would like to thank the participants of the OFCE Lunch seminar, the INSEE Inequalities seminar, and the AFSE-DG Trésor Conference, as well as two anonymous reviewers whose comments have helped improving this article.
Received in June 2019, accepted in May 2020. Translated from “Imposition des couples en France et statut marital – Simulation de trois réformes du quotient conjugal”.

Citation: Allègre, G., Périvier, H. & Pucci, M. (2021). Taxation of Couples and Marital Status – Simulation of Three Reforms of the Marital Quotient in France. *Economie et Statistique / Economics and Statistics,* 526-527, 3–20 (First published online: 30 March 2021). doi: 10.24187/ecostat.2021.526d.2050

In France, in 2017, income tax[1] represented around 12% of tax revenue.[2] While the majority of households are required to pay the Generalised Social Contribution (*Contribution Sociale Généralisée* – CSG),[3] 43% of households are subject to income tax. The latter takes into account family configuration and, in particular, the marital status of couples: married couples or couples in civil partnerships must declare their resources jointly and are allocated two tax units (the system is known as the marital quotient), whereas cohabiting couples (common law partnerships) are considered as two separate tax households and declare their resources separately. The switch to withholding tax in January 2019 allows the tax to be paid directly on individual payslips. The method of levying income tax has been individualised, but it is still calculated based on the couple's income for those who are married or in a civil partnership. This system, which dates back to 1945,[4] was designed to take account of family solidarity between married partners in a context in which single-income couples, with the husband having a job and the wife being responsible for the housework and child-rearing, was the norm in public policy. It was also intended to encourage couples to get married. Around eight in every ten couples are married or in a civil partnership, and are therefore affected by the marital quotient. This tax system represents a financial package of around 10 billion euros.

This method of taxation is the subject of many controversies: some argue for individualisation of taxation or a reform of the marital quotient, deeming it unfair, because the tax advantage provided by the marital quotient (where it exists) grows with the couple's income, and ineffective, in that it disincentivises married women from working (Glaude, 1991 ; Lanquetin *et al.*, 2004 ; Landais *et al.*, 2011), and others defend the system as it is, in the name of the principle of horizontal equity (Sterdyniak, 1992). This debate is important and sensitive, on the one hand because it raises questions about the principles of justice on which income tax is based (tax justice between different types of households, as well as in terms of gender equality); on the other hand, because family configurations have diversified as a result of the increase in common-law partnerships, divorces and family reconfigurations: it is claimed that this system is no longer suitable for this greater level of individual freedom, compared with a single family norm. Finally, the marital quotient represents a political choice, the consequences of which in terms of tax revenues and redistributive effects are difficult to ascertain and change due to the effect of successive modifications to the rules on income tax.[5] This is partly due to the complexity and lack of clarity of the income tax system.

Some work has evaluated the advantages of marriage and civil partnerships, compared to common-law partnerships. These studies most often use two complementary approaches: a case study approach to understand the interaction between different tax and social mechanisms and microsimulation, which makes it possible to map the losers and winners and calculate the cost or gain of possible reforms by simulating their redistributive effects (Glaude, 1991 ; Amar & Guérin, 2007 ; Legendre & Thibault, 2007 ; Haut Conseil à la Famille, 2011 ; Eidelman, 2013 ; André & Sireyjol, 2019). This work shows that the marital quotient system associated with marriage and civil partnerships is most often beneficial to couples. In addition, the advantage linked to joint taxation increases with standard of living and the wealthiest 15% of the population are those who benefit from it the most (André & Sireyjol, 2019). Less often, work has been carried out to analyse the effect of the marital quotient or joint taxation in terms of how it disincentivises women from working (Jaumotte, 2003 ; Carbonnier, 2007). Other work has simulated the redistributive effects of switching to individualised taxation, taking into account, through different hypotheses, the change in women's work behaviour (Echevin, 2003).

This article is in line with work combining case study analysis and microsimulation evaluations to assess the effects of the marital quotient on the amount of tax couples must pay, incorporating income tax reforms up to 2016 (particularly the abolition of the employment premium, the reform of the rebate and the introduction of the exceptional payment for high earners and the means-tested tax reduction). Beyond updating existing work, this article presents three reforms of the marital quotient, two of which are original and had never been examined before. Each of them responds to the main criticisms levelled at the marital quotient.

1. A single annual personal income tax shall be established for the specified natural persons, referred to as income tax, French General Tax Code, Article 1.
2. Social security contributions are not included in this revenue.
3. Only pensioners with a low income (€11,128 per year for a single person, in 2018) are exempt.
4. Article 8 of the Law of 15 July 1914 already specified that each head of family is a taxable person, in respect of both his personal income and that of his wife and other family members living with him. However, the marital quotient system dates back to 1945.
*5. Such as, for example, the introduction of the PPE (*prime pour l'emploi* – a means tested employment premium) in 2002, followed by its abolition in 2016; the introduction of the rebate in 1982, then reformed in 1987, 2002, 2015 and 2016; the introduction of the means-tested tax reduction in 2017; the introduction of the exceptional payment for high earners, with two brackets in addition to the progressive tax scale.*

After presenting how the marital quotient works and the problems it raises, we assess three reform scenarios: individualisation of income tax, decreasing the number of tax units granted to married couples/couples in civil partnerships from 2 to 1.5 with the option of individualisation, with this new tax system being opened up to cohabiting couples, and, lastly, capping the advantage associated with the marital quotient at the same level as that of the family quotient. These simulations reveal the sums involved in the redistribution carried out by the marital quotient and the alternatives for distributing the tax burden between households differently.

1. Taxation of Couples and the Marital Quotient

1.1. The Basic Principles of Income Tax

The income tax system is based on the constitutional principles of equality before the law (Article 6 of the 1789 Declaration of the Rights of Man and of the Citizen)[6] and equality before public offices, according to which the tax burden should be equitably distributed among all the citizens in proportion to their means (*id.* Article 13).[7] The latter principle requires taxation to progress in accordance with income and requires that family responsibilities be taken into account. However, the principle remains broad enough to be respected in multiple ways (Collet, 2014).[8] Under the current system, income tax is based on two principles:

(i) The progressivity of the tax, which is ensured by applying a progressive tax scale to taxable income. In 2018, it is composed of 4 tax brackets, the rates of which are 14%, 30%, 41% and 45%, respectively;[9] in addition to which is the exceptional payment for high earners, which includes two brackets of 3% and 4%. Without this progressivity, imposing taxation at individual or household level would be equivalent.

(ii) Taxation not of the individual's income but of the income of the tax household to which the individual belongs, in accordance with the number of people in the tax household.

The calculation of the tax takes into account the composition of the household by applying a family tax quotient system that allocates a number of tax units determined by the number of people present in the same tax household, the family configuration (single parent or couple) and the marital status of the couple. Quotient taxation consists of applying the progressive taxation scale not to total income but to income divided by the number of tax units. For the same income, a tax household with a higher number of tax units may be subject to a lower marginal rate. The amount of tax per unit is then multiplied by this number of units to obtain the amount of tax due from the tax household. Therefore, under this mechanism, two tax households with the same income per unit are subject to the same marginal tax rate (Online Appendix C1. Link to Online Appendices at the end of the article).

These general principles seek to achieve a form of tax neutrality:[10] with a comparable initial standard of living, two households of different compositions must have the same standard of living after tax. With the principle of horizontal fairness interpreted in this manner, individuals with the same ability to pay must be treated equally. The tax must therefore not alter the relative position of households of different configurations in the distribution of standards of living. The explanatory memorandum of the draft law introducing the family tax quotient in 1945 makes this argument: "It is unfair that, despite the deductions granted for dependents, a household with children should pay a higher general income tax than a household without children, taking into account the expenses it is obliged to incur".[11] Beyond the horizontal fairness argument, the marital quotient system was also intended not to favour cohabiting couples over married couples, as shown in the explanatory memorandum of the draft law introducing the family tax quotient in 1945: "It is immoral to levy a progressive tax on total household income on the head of the family, thereby benefiting cohabitation".[12]

6. *Law is the expression of the general will. Every citizen has a right to participate personally, or through his representative, in its foundation. It must be the same for all, whether it protects or punishes. All citizens, being equal in the eyes of the law, are equally eligible to all dignities and to all public positions and occupations, according to their abilities, and without distinction except that of their virtues and talents. [translated from the French].*

7. *A common contribution is essential for the maintenance of the public forces and for the cost of administration. This should be equitably distributed among all the citizens in proportion to their means.*

8. *While the Constitution does require income tax to be progressive and take into account the family responsibilities of each individual, it does not require that it be levied on the resources and responsibilities of the household as a whole (Collet* et al., *Le Monde, 2015).*

9. *In 2015, the first bracket, which had a rate of 5%, was abolished.*

10. *Pierre Laroque said: "Unlike the tax measures in the Family Code, which were designed to encourage families to have three or more children, and to discourage single people from staying single and couples from not having children, the family quotient aims to secure distributive justice. The aim is to make income tax as neutral as possible, in relation to the consumption capacities of families according to their unequal burdens." [translated from the French].*

11. *https://www.legifrance.gouv.fr/affichJuriSaisine.do;jsessionid=DF4C05BCCD35872603AABB260AD6912F.tpdjo14v_3?idTexte=CONSTEXT000017667929*

12. « Il est immoral de frapper d'une taxe progressive les revenus du ménage réunis sur la tête du chef de famille, avantageant ainsi le concubinage » *https://www.legifrance.gouv.fr/affichJuriSaisine.do;jsessionid=DF4C05BCCD35872603AABB260AD6912F.tpdjo14v_3?idTexte=CONSTEXT000017667929.*

1.2. How Does the Marital Quotient Work?

Income tax imposes a tax regime on couples that depends on their marital status. Currently, married people and people in a civil partnership constitute a single tax household and are required to jointly declare all of their resources in order to take into account family solidarity. Until 1982,[13] taxation was based on the head of the family, i.e. the husband, with the wife being considered his dependent. Since 2005, the same regime applies to couples in civil partnerships.[14] Both partners report a single taxable income composed of all the couple's income. In contrast, people living in common-law relationships report their income separately and constitute two separate tax households.

Married couples and couples in civil partnerships without dependents are attributed two tax units. This system is commonly known as the "marital quotient" and, strictly speaking, it differs from the family tax quotient, which refers to the tax units attributed for dependent children and dependents more generally (Table 1). The units allocated in respect of children do not depend on the parents' marital status: the first two children of the tax household grant an entitlement to half tax unit each, from the third child onwards, each grants an entitlement to one tax unit.[15]

Unlike the marital quotient, the family tax quotient is not mandatory: parents can decide not to attach their children to their tax household beyond a certain age, particularly if they start working.[16] Cohabiting couples report their income separately and can choose to allocate the units related to their dependent children between their respective tax households, so as to reduce the total amount of tax payable by the household, which married couples/couples in civil partnerships cannot do.

Where both partners have similar incomes, the marital quotient and separate taxation lead to an equal level of tax, except for couples who benefit from the tax rebate and/or the means-tested tax reduction. In contrast, where the two incomes are very different, joint taxation is more advantageous than separate taxation (it applies the marginal rate to the average income and not to each of the incomes, see Online Appendix C1). No country other than France applies a system of tax units, except for the United States. The U.S. tax system allows married couples to report their income individually or jointly. Since the tax brackets are doubled for married couples who file jointly, this system has the same properties as the marital quotient (except for the final bracket, which is not doubled, thus capping the advantage granted to married couples). Only a few countries have a completely separate income tax system without dependent partner compensation. Certain countries offer a possible transfer of income from one partner to the other, others offer a tax credit or deduction for a dependent (Online Appendix C2).

1.3. Simulation of the Advantage Associated with the Marital Quotient

The issue of tax treatment of couples in accordance with their marital status has been the subject of some pieces of work aimed at assessing the advantages associated with marriage (Amar & Guérin, 2007 ; Legendre & Thibault, 2007 ; Haut Conseil à la Famille, 2011 ; Eidelman,

13. It was not until 1982 that the concept of the head of family was removed from the General Tax Code: https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000000503959
14. Before 2005, the taxation of couples in civil partnerships was separate for the first three years and then joint thereafter.
15. Other situations may give rise to the receipt of an additional or half tax unit (e.g. an additional half unit is granted to single parents, war widows, households including a disabled person, etc.).
16. Not attaching children living in the household can only be advantageous if they have their own income.

Table 1 – **Number of tax units and consumption units(*) according to family configuration**

		Married couple/couple in civil partnership	Person living in a cohabiting couple taking responsibility for the couple's children (+ partner's unit)	Single
0 children	Tax units	2	1 (+1)	1
	Consumption units	*1.5*	*1.5*	*1*
1 child	Tax units	2.5	1.5 (+1)	2
	Consumption units	*1.8*	*1.8*	*1.5*
2 children	Tax units	3	2 (+1)	2.5
	Consumption units	*2.1*	*2.1*	*1.8*
3 children	Tax units	4	3 (+1)	3.5
	Consumption units	*2.4*	*2.4*	*2.1*

(*) the number of consumption units is calculated using the OECD-modified equivalence scale for children aged under 14.
Reading Note: 2 tax units are allocated to a married couple or couple in a civil partnership without children, while that couple represents 1.5 consumption units.

2013 ; André & Sireyjol, 2019). These studies combine a case study approach to understand the interaction between different fiscal mechanisms and microsimulation, which makes it possible to calculate the figures associated with possible reforms and simulate their redistributive effects. The counterfactual scenario used most often is an individualisation of the tax, with underlying assumptions that vary from one study to the next.

We calculate the advantages associated with the marital quotient based on a simplified model of the socio-fiscal system in place in accordance with the 2018 legislation. This makes it possible to simulate the amount of tax due from a household, in accordance with its family configuration and the couple's marital status. The advantage associated with the marital quotient is the difference between the sum of the two tax amounts due from the partners of a cohabiting couple and the tax due from a married couple/couple in a civil partnership, with the same individual income structure.

The marital quotient system is much more advantageous for married couples/couples in a civil relationship, compared to cohabiting couples, when the incomes of the partners are different, which is due to the logic behind the system. In addition, income tax is characterised by numerous mechanisms that are not necessarily marital, or are not marital in the same way as the marital quotient: the rebate that spreads the amount of tax due on entry into force of the tax scale and which was amended in 2015, can benefit cohabiting couples (Online Appendices C1 and C3), while the means-tested tax reduction introduced in 2017 and the exceptional payment for high earners, introduced in 2011 and renewed in 2018, have complex effects (Online Appendix C3). Finally, whereas cohabiting couples can divide the units allocated for children between the two tax households so as to minimise the total amount of tax due, married couples/couples in civil partnerships who form a single tax household, cannot.

By design, the amount of tax paid by married couples/couples in a civil partnership does not depend on the income structure between partners. In contrast, the amount of tax paid by both cohabiting partners depends on their respective incomes. Thus, when income is divided equally between the two partners, separate taxation and joint taxation lead to the same amount of tax for the couple, except in certain cases: couples in which each partner earns 1.5 times the French minimum wage (SMIC) pay less tax if they live in a common-law relationship and declare their income separately than a married couple with an identical individual income structure. In fact, in such case, the rebate benefits cohabiting couples.[17] Until 2015, the threshold was the same for single people (or cohabiting people) and married couples/couples in civil partnerships, and the threshold applied to taxable income without taking into account the number of tax units. In 2015, the rebate trigger threshold was raised and a threshold for married couples/couples in civil partnerships was introduced. Nevertheless, this "couple's" threshold is not twice that of single people. Thus, cohabiting couples in which each earns 1.5 times the French minimum wage pay less tax than married couples with the same level and structure of income. In contrast, for single-income couples, the marital quotient leads to a lower amount of tax for a married couple/couple in a civil partnership than for a cohabiting couple: the associated tax reduction ranges from approximately €2,250 per year for a couple in which one of the partners earns two times the French minimum wage, to €5,700 for a couple in which one of the partners earns five times the French minimum wage.

For single-income couples, the marital quotient is either neutral compared with a common-law situation or provides an advantage (for couples without children, this advantage starts for incomes situated in the middle of the 2nd decile). For couples without children in which one of the partners earns twice as much as the other, the couples that lose out due to the marital quotient have incomes situated in the 8th decile: joint taxation causes them to lose the rebate to which the partner earning the least would still be entitled if they declared their income separately. For couples with the same income structure but with two dependent children, the losses are greater and appear for incomes situated in the 8th decile, as married couples/couples in civil partnerships, unlike cohabiting couples, cannot optimise the tax units granted for children (Online Appendix C4, Figures C4-I and C4-II).

Generally speaking, the advantage associated with the marital quotient, where it exists, increases with income and is capped once the taxable income per unit is situated in the final bracket of the exceptional payment for high earners. The maximum advantage provided by the marital quotient (i.e. €32,350 per year) is reached for single-income couples with a very

17. When there are dependent children and cohabiting parents are able to optimise the distribution of tax units according to their taxable income, the configurations in which total tax is lower for cohabiting couples than for married couples or couples in civil partnerships are more frequent.

high income, over 70 times the French minimum wage. On entering the 10th decile (for single-income couples), the advantage provided is €5,700 per year. Such cases are not frequent relative to the population as a whole; nevertheless, 13% of married couples aged 25 to 54 whose incomes are situated in the 10th decile for standard of living are single-income couples.[18] This is partly explained by the attractiveness of the marital quotient for this income configuration.

2. Why Reform the Marital Quotient?

Several forms of criticism are levelled at the marital quotient. The proposed and simulated reforms seek to correct the system so as to respond to such criticism, at least in part.

2.1. The Tax Unit of Reference: the Individual or the Couple?

2.1.1. Solidarity Within Cohabiting Couples is Not Recognised

The fiscal unit in the marriage tax quotient system is the couple in the case of married couples or couples in civil partnerships and it is the individual in the case of cohabiting couples. This is based on the principle of pooling the resources of married couples or couples in civil partnerships, which implies that no form of solidarity is recognised within cohabiting couples. Nevertheless, the system is ambiguous because, since 1996, cohabiting parents who declare that they have one or more dependent children no longer benefit from the additional half tax unit allocated to single parents, which implies a form of recognition of family solidarity in the case of cohabiting couples with regard to child-related expenses (cf. Table 1). In addition, in the case of the ISF (*Impôt de solidarité sur la fortune* – a tax on wealth), a joint declaration is compulsory for "known cohabitees" who, in this case, are considered as a single tax household, without the marital quotient system. The aim of this is to avoid partners sharing their wealth as a couple in order to remain below the current tax threshold of 1.3 million euros, with the threshold being the same for single people or for a couple.[19] Similarly, the calculation of entitlements to social benefits (such as the *Revenu de solidarité active*, RSA – the minimum income) takes into account the couple's income regardless of their marital status. Thus, tax law is sometimes inconsistent in the case of cohabiting couples, whereas civil law has extended the legal notion of a "couple" to include cohabiting couples (Cavalier, 2013) and social benefits are based on the total income of partners, whether married, in a civil partnership or cohabiting. Since 1945, family aspirations and lifestyles have changed (common-law partnerships, divorce, family reconfiguration, female employment, etc.), but the principle of taxation of couples has not been amended, except for the extension of joint taxation to couples in civil partnerships from 2005 onwards.

2.1.2. Do Married Couples Actually Pool Their Resources?

In 2010, 74% of married couples declared that they pooled all their resources, compared with 30% of couples in civil partnerships and 37% of cohabiting couples. Thus, couples in civil partnerships are thought to be more like cohabiting couples than married couples.[20] The practice depends on income level: while 72% of couples in the first income quartile declare that they pool all of their resources, this is the case for only 58% of couples in the final quartile (Ponthieux, 2012). Unlike the family tax quotient, which is limited to €1,500 per year and per half unit, the advantage provided by joint taxation is not capped, except mechanically for households with an income per unit situated in the final tax bracket, and the higher the couple's resources, the less often the partners pool their resources. Thus, the marital quotient seems inappropriate given that the tax advantage it provides is greater the higher, and therefore less shared, the couple's income and that it is not available to cohabiting couples with low resources. In contrast, couples in civil partnerships, who rarely pool their resources, benefit from joint taxation.

In response to these criticisms, two reforms are possible. The first of these reforms is to open up the right to joint taxation to cohabiting couples.[21] The second reform consists of abolishing joint taxation by individualising income tax. In this case, each partner, whether married, in a civil partnership or cohabiting, would declare their income separately and would be taxed on that basis. Incomes common to both partners would

18. *See Online Appendix C5 for a description of the characteristics of couples according to their standard of living decile.*

19. *The treatment of cohabiting couples in respect of the IFI (*Impôt sur la Fortune Immobilière *– a tax on real estate assets) is not consistent with how they are treated in respect of Income Tax. The tax threshold for the IFI could be lower in the case of an individual declaration than in the case of a joint declaration when declaring the value of the assets.*

20. *However, this result must be put into perspective: couples in civil partnerships are on average younger and newer than married couples (both because the possibility of entering into a civil partnership is recent and because a civil partnership is often a step towards marriage) and younger and newer couples are less likely to pool all of their resources.*

21. *Some cohabiting couples may then be tempted to declare their income separately when it is more favourable. In order to avoid this tax optimisation, and to establish the joint declaration obligation for all couples, the life of the couple should be checked, as the social services do for the payment of the RSA.*

be shared between the two new tax households. The tax units allocated to children can either be divided equally between the two parents (individualisation without optimisation), or allocated in such a way as to reduce the total amount of tax to be paid by each parent (individualisation with optimisation).

2.2. Ability to Pay and Number of Tax Units Allocated

The French Constitution states that taxation must take into account the ability of citizens to pay. The entire issue is to determine how this "ability to pay" is understood. With the same income, a person living alone has a higher standard of living than a couple, but not twice as high due to the economies of scale provided by living as a couple. In 1945, the administration was undoubtedly incapable of accurately calculating the standard of living of households of different sizes and, therefore, of assessing their respective ability to pay. Today, equivalence scales are used to compare the standard of living of families of different sizes. Even though they can be criticised in many ways (Martin, 2017 ; Martin & Périvier, 2018), they are a reference tool for measuring standards of living (Bourguignon, 1993 ; Hourriez & Olier, 1997). INSEE applies the so-called OECD-modified equivalence scale, which allocates 1.5 consumption unit to couples and 1 unit to single people, then 0.3 of a unit for each child aged under 14 and 0.5 of a unit for children aged 14 and over. According to this scale, a couple with a disposable income of €3,000 thus has the same standard of living as a single person with income of €2,000. The marital quotient allocates 2 tax units to married couples or couples in a civil partnership and 1 tax unit to singles. The standard of living of couples is therefore underestimated by 33% relative to people living alone, and therefore they are not taxed according to their ability to pay (defined as their standard of living).[22] This is because the aim of achieving horizontal fairness is undermined by the desire to avoid encouraging couples to remain in common-law partnerships. Similarly, the decision regarding the number of tax units allocated to children according to the number of children was not made with the sole aim of guaranteeing the principle of horizontal fairness, but was partly guided by a desire to encourage births, as demonstrated by the additional 0.5 tax unit per child granted from the 3rd child onwards, introduced in 1980 (Bloch *et al.*, 2005). The principle of horizontal fairness is thus not respected and, given that the tax advantage grows with household resources, the principle of vertical fairness is not respected either. The advantage associated with the marital quotient increases with income and is only capped when the taxable income per unit reaches the final tax bracket, and that of the exceptional tax on high income (Online Appendix C4). This is not the case for the family tax quotient, for which the advantage afforded has been capped since 1982. This cap was lowered in 1998, in 2012 and in 2013 (in 2018 the tax advantage associated with the family tax quotient was capped at €1,527 per half tax unit). If the tax advantage afforded by the family tax quotient is capped, that associated with the marital quotient should also be capped.

Where one partner is employed or has a lower income than their partner, the partner with the lower income does not constitute a dependent as such, even if the partner with the higher income is able to increase their partner's standard of living by assuming a greater share of the common expenses. Where one partner is unemployed, he or she (in practice it is most often women) contributes to the household resources through their domestic and family work. For example, in the model of "Mr Breadwinner and Mrs Housewife", the unemployed wife provides a service through the domestic and family work she does. This domestic production (childcare and education, cleaning, cooking, etc.) has an economic value that is not taxed. Thus, single-income couples are treated more favourably than dual-income couples, who have to outsource part of their domestic and family tasks and have a lower standard of living for the same income. Allègre *et al.* (2015) show that single-income couples spend about one hour more per day on domestic tasks than their dual-income counterparts. Valued, for example, at the French net hourly minimum wage, this hour of domestic work corresponds to an annual amount of €2,700 (Allègre *et al.*, 2015), which could justify a tax adjustment that would take account of this advantage for single-income couples or this disadvantage for dual-income couples. Finally, the marital quotient discourages the wife from working (see below) which, combined with gender norms, reinforces the gendered nature of the division of labour within couples and gender inequalities. At the time of a divorce, women's lesser investment in the labour market means that they suffer a greater loss of standard of living than their ex-partner, despite public and private transfers (Bonnet & Garbinti, 2015 ; Bonnet *et al.*, 2016).

22. The social scale of the RSA follows the consumption units of the OECD-modified equivalence scale.

To address the shortcoming in the number of tax units allocated to couples in accordance with their marital status, the number of tax units allocated to married couples or couples in a civil partnership could be reduced to 1.5 from its current level of 2, while allowing the possibility of opting for separate taxation. This choice between joint taxation with 1.5 tax units for the couple or separate tax declarations could also be offered to cohabiting couples.

2.3. Disincentives to Work for Married Women

With the marital quotient system, the same tax rate applies to the individual incomes of both partners, which are declared together. If there is an income gap between the partners, the partner with the lowest income bears a higher tax rate than if they were to declare their income separately and the partner with the highest income bears a lower marginal rate than if they were single.[23] The marital quotient discourages the partner with the lowest income, most often the woman (three out of four women in couples earn less than their partner, see Morin, 2014), from working, while it incentivises the other partner to work more. It therefore encourages specialisation within the household (paid work for Mr and domestic work for Mrs) and is a potential or real obstacle to the employment of married women or women in civil partnerships. Beyond differences in wage, which favour men, it should be remembered that the percentage of parental leave used up by women is 94.8% in 2017 (CAF, 2019): when there are children present, the decision to stop or reduce work is still one taken by the vast majority of women. It is thus legitimate to assume that women remain additional workers.

Furthermore, the literature shows that women's labour supply is more elastic than men's: women, particularly married women and/or those with young children, respond to financial incentives more than men do (Briard, 2017). By increasing the marginal tax rate applied to the partner with the lowest income, most often women, and by reducing the marginal tax rate applied to the partner with the highest income, the marital quotient could reduce the overall labour supply.

Based on international comparisons, research shows that separate taxation is more favourable to female participation in the labour force than joint taxation (Jaumotte, 2003; Thomas & O'Reilly, 2016). Crossley & Jeon (2007) have evaluated the impact of the switch from joint taxation to separate taxation for married couples in Canada. Their results show that the reform has led to a large increase in the labour supply from married women, who now benefit from lower marginal tax rates. In France, by integrating behavioural changes into a simulation of the individualisation of taxation, Echevin (2003) finds that separate declaration has positive effects on the participation of married women in the labour market (it is most often women who have lower incomes). Finally, Carbonnier (2007) shows that application of income tax to the family as a unit encourages married women/women in civil partnerships to stay out of the labour market. Thus, the marital quotient contributes to the reproduction of economic inequalities between women and men.

The current system means that the marginal tax rate applied to the partner with the lowest income in a cohabiting couple is less than the marginal rate applied to the income of a married couple/couple in a civil partnership (Online Appendix C4, Figure C4-III). Applying the average rate for the married couple/couple in a civil partnership to the individual income of the partner with the lowest income gives an estimate of the average amount of tax that partner must pay. This amount is theoretical since these couples are supposed to pool their resources and expenses. Nevertheless, this allows for a comparison of the average amount of tax paid by two people with the same income, both of whom are the partners with the lowest income in their respective couples, but one person is married and the other is living in a common-law partnership.

Another way of understanding the potentially disincentive nature of the marital quotient on the labour supply of married women/women in civil partnerships is to calculate the gain in disposable income resulting from full-time minimum wage employment for the inactive partner, in accordance with marital status. This gain is simulated in accordance with the income of the individual's partner for a couple without children and then for a couple with two children (aged 8 and 6). Indeed, the presence of children in the household is an obstacle to women working, which can be reinforced by the marital quotient system. This family configuration is conducive to the withdrawal from work of women who struggle to find a balance between work and family life. The gain from returning to employment is always

23. *Since the reform of the withholding tax (2019), the tax payable by the partner with the lowest income is calculated based on their income alone when the partners opt for the individualised rate. The tax payable by the other partner is then defined as a balance, based on the amount of tax payable by the couple.*

lower in the case of a married couple/couple in a civil partnership than for a cohabiting couple (Figure I). The financial incentives to take a job are therefore lower for a married woman than for a woman living in a common-law partnership. This gap increases if the couple has two dependent children.

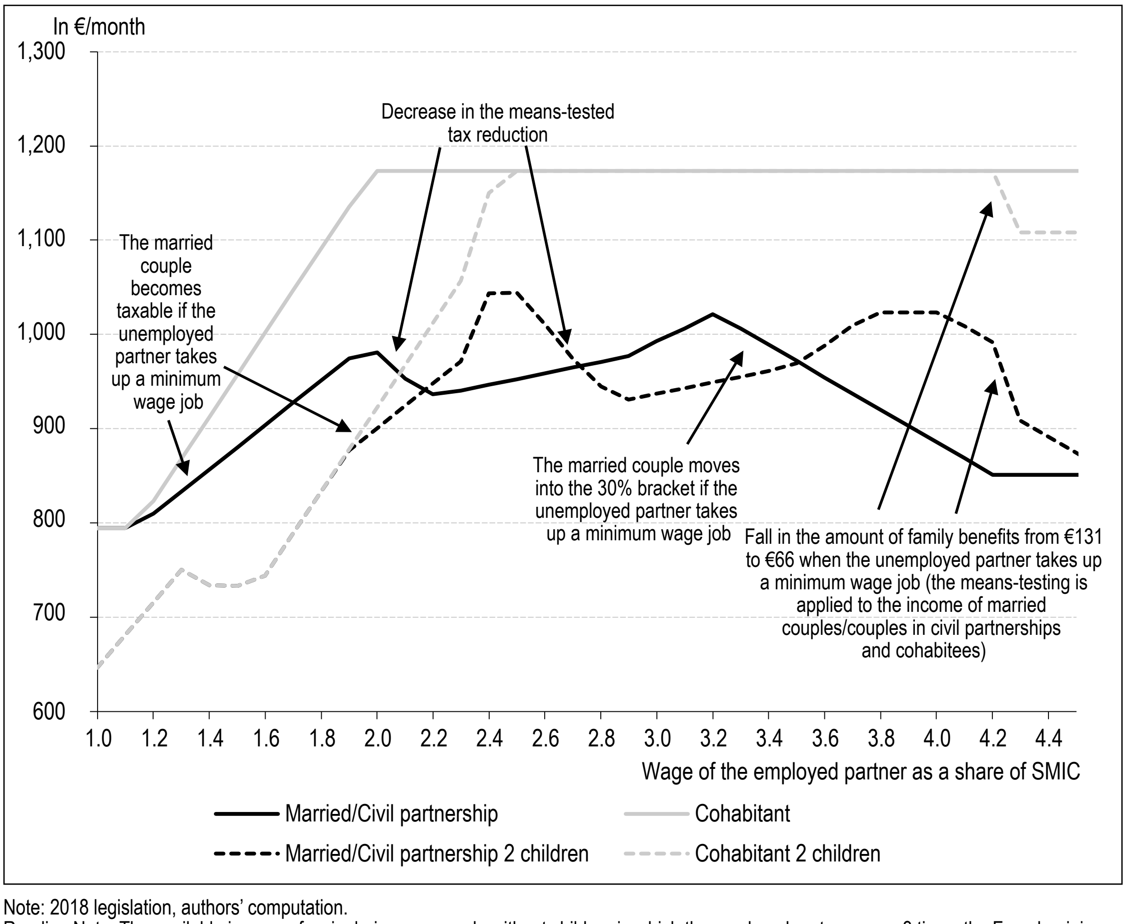
Only the switch to an individual tax system can fully address this criticism by ensuring that the individual income of each partner is taxed separately and not at the marginal rate corresponding to the average income of the couple.

3. How Should the Marital Quotient Be Reformed? Three Possible Scenarios

The reform of the taxation of couples can take multiple forms, depending on the principles chosen and how they are applied. The first principle is selection of the tax unit of reference: the couple or the individual. Then, if the tax unit remains the couple, the question of marital status arises: do we wish to tax married couples/couples in a civil partnership and cohabiting couples differently? In other words, is tax recognition given to cohabiting couples or are they considered to be two single people (and therefore two separate tax households)? The number of tax units allocated to couples may also be modified to be more in line with standards of living, as calculated using the usual equivalence scales. Finally, the advantage associated with the marital quotient could be capped, in the same way as the advantage associated with the family tax quotient.

Our simulations aim to evaluate reform scenarios that address one or more criticisms of the marital quotient and leave open the question of how the resulting additional tax revenues would be used. Furthermore, a reform of the taxation of couples could have an effect on labour supply, particularly for married women who are potentially disincentivised from working because of the marital quotient: for example, an unemployed wife may take a job in response to individualisation of taxation, or increase her working

Figure I – **Gain on one partner returning to full-time minimum wage employment, according to the income of their partner and the couple's marital status. Case of a couple without children and of a couple with 2 children (aged 8 and 6).**



Note: 2018 legislation, authors' computation.
Reading Note: The available income of a single-income couple without children in which the employed partner earns 3 times the French minimum wage and in which the unemployed partner takes up a minimum wage job (€1,174 per month) increases by €993 for a married couple/couple in civil partnership, compared with €1,174 for a cohabiting couple.

hours (Echevin, 2003). Similarly, a reform of the taxation of couples may cause behavioural changes with regard to decisions concerning marital status. For example, the opening up of joint taxation to couples in civil partnerships in 2005 made civil partnerships more attractive (Leturcq, 2012). The calculations do not take into account behavioural changes relating to employment or those relating to decisions concerning marital status that the three simulated reforms could induce.

Three reform scenarios are proposed, with the family quotient remaining unchanged in all cases:

1) Individualisation of income tax with optimisation. In other words, the tax unit becomes the individual and ceases to be the married couple/couple in a civil partnership and, like cohabiting couples, married couples/couples in civil partnerships can divide the tax units associated with dependents between their two respective fiscal households so as to limit the total amount of tax they have to pay. This reform addresses the criticism made regarding the tax unit of reference. In this case, any potential pooling of resources between partners is no longer taken into account.

2) The allocation of 1.5 tax units to married couples/couples in civil partnerships instead of 2 tax units, while allowing these couples to opt for a separate tax declaration if this is more advantageous. This reform makes it possible to align the tax units granted to married couples or couples in civil partnerships and the usual equivalence scales. The opening up to cohabiting couples of this choice between a separate declaration and a joint declaration with 1.5 tax units for the couple also makes it possible to take into account solidarity between cohabitees.

3) Capping the tax advantage associated with the marital quotient at the same level as that associated with the family tax quotient (€1,527 per half unit, or €3,054 for the partner's entire unit). This reform reduces the anti-redistributive nature of the marital quotient by limiting the advantage it affords to the wealthiest households.

To evaluate these three scenarios, we use the Ines microsimulation model, provided by INSEE, DREES and the CNAF. The model reproduces the socio-fiscal legislation of 2016 and is based on the 2014 ERFS (*enquête Revenus fiscaux et sociaux*, a survey on tax and social income) "aged" for 2016.

The three scenarios lead to an increase in the tax revenue provided by income tax, which can be used in several ways:

- To avoid increasing the tax burden on households, the reforms can be carried out while returning a constant level of tax yield. To achieve this, the gains in tax revenues would be redistributed within income tax: either to all taxpayers (lowering marginal rates, raising the thresholds of the different brackets, etc.); or to couples only (through various mechanisms by calibrating the parameters for taking into account the partner such as, for example, a tax reduction for the partner or a tax credit); or to married couples/couples in civil partnerships only.

- The tax gains resulting from these reforms could be used to finance public policies related to the family and gender equality (childcare, parental leave, etc.).

A combination of these two options is also possible. We do not explore these different avenues and simulate the reforms by calculating the gain in tax revenue they would generate (Table 2).

Individualisation with optimisation would mean additional tax revenue of 7 billion. Reduction of the number of units to 1.5 for married couples/couples in civil partnerships with the option of individualisation would lead to a gain in tax revenue of 4.8 billion euros. The opening up of this choice to cohabiting couples would cost around 300 million euros. Thus, this combination of reforms would lead to an increase in tax revenue of 4.5 billion euros. Finally, the capping of the marital quotient would increase tax revenues by around 3 billion euros.

Table 2 – **Summary of the effects of the three simulated scenarios**

	Scenario 1	Scenario 2			Scenario 3
		Married couple or couple in civil partnership	Cohabiting couple	Total	
Variation in tax revenue in billions of euros	7.2	3.8	-0.3	3.5	2.9
(%)	*(+9.9)*	*(+5.2)*	*(-0.4)*	*(+4.8)*	*(+4.0)*
Proportion of winners (as a %)	20	20	12	19	-
Average gain (in euros)	448	448	932	498	-
Proportion of losers (%)	46	40	-	33	7
Average loss (in euros)	1 405	941	-	941	3 232

Individualisation of taxation without optimisation[24] would generate a gain of 10 billion (Online Appendix C6); this scenario is not proposed as a possible reform as such, but it is the reference used to simulate the capping of the marital quotient. In addition, it makes it possible to evaluate the cost of the marital quotient or the gain resulting from its abolition and shows the budgetary stakes underlying the debate on the taxation of couples.

For each reform, we estimate the percentages of losers and winners per standard of living decile, as well as the average and median loss or gain. For each standard of living decile, we also calculate the median ratio between the gain (respectively the loss) and the disposable income of the winners (losers). Comparing the gain (loss) with the disposable income of the household is consistent with the calculation of the standard of living deciles.[25] For all three reforms, the proportion of married couples or couples in civil partnerships that lose out is higher in the final standard of living decile, with a higher average loss; this is because couples in the final deciles have higher incomes and therefore have more to lose from these reforms (see Figures II, III and IV). In contrast, for the first two scenarios, the median value of the loss/available income ratio per standard of living decile is higher in the intermediate deciles. Only the capping of the marital quotient leads to a median loss and a higher median loss/disposable income ratio for the final decile. In Scenario 2, the optional opening up of joint taxation with 1.5 tax units to cohabiting couples would create winners mainly in the intermediate deciles.

3.1. Scenario 1 – Individualisation of Income Tax with Optimisation of Tax units

Two reforms are possible to address the criticism of the current system relating to the tax unit of reference. The first of these reforms involves making the couple the tax unit of reference, which means aligning the tax regime for cohabiting couples with that used for married couples/couples in civil partnerships. They benefit from 2 tax units but would be obliged to jointly declare their resources. The obligation for cohabiting couples to make a joint declaration would cost more than 500 million euros, would increase the amount of tax due for 23% of cohabiting couples and would reduce it for 30% of couples (Online Appendix C7). Nevertheless, this scenario is not used as it extends the problem of disincentivising women from working to those living in common-law partnerships. The second option is to make the individual the tax unit of reference, with partners reporting their income separately regardless of marital status. Each adult represents a tax household to which children or other dependents are attached. The units allocated in respect of dependents may then be freely distributed between the two partners. This is the reform that we simulate in Scenario 1.

The simulation of the tax gain associated with such a reform and its redistributive effects depend on the assumptions used (Online Appendix C6). These assumptions are necessary because the information available in the ERFS survey does not allow a perfectly accurate individualisation of income, nor of the various tax credits and deductions. In addition, the complexity of the current system is such that certain mechanisms are difficult to individualise. In our simulations, incomes that cannot be individualised are shared between the two partners. These incomes represent only 3.8% of all taxable income of married couples/couples in civil partnerships (with a maximum of 8.5% in the final decile). Therefore, the assumption regarding the sharing of these incomes has no significant effect on the results. Three separate categories of income that cannot be individualised are:

- income from property and life annuities, which represents almost 65% of income that cannot be individualised;
- financial income, including capital gains, investment income and income from life insurance), which represent 32% of income that cannot be individualised;[26]
- income from dependents, which represents 3% of income that cannot be individualised.

The tax units allocated to dependents have been divided between partners so as to minimise the amount of tax payable by the two tax households.[27] The capping of the marital quotient is still applied at household level, it is not doubled with the individualisation of income tax. The individualisation of income tax with optimisation of tax units creates additional tax revenue

24. *It is assumed that in order to apply the cap, the administration calculates an individual tax by dividing between the married couple or couple in a civil partnership the number of tax units linked to dependents as well as income that cannot be individualised.*
25. *For complex households that include multiple tax households, this calculation is not accurate, as it is equivalent to comparing the gain (loss) of a tax household with the disposable income of the household to which it belongs and not to the income of the tax household itself. Excluding complex households from the evaluations has no significant effect on the results.*
26. *Since the introduction of the Flat Tax (*prélèvement forfaitaire unique*) in 2018, income from financial capital is no longer taxed in the income tax scale.*
27. *In reality, as the system is highly complex, it is not certain that couples subject to separate taxation will minimise the amount of tax they pay, especially if they do not pool all of their resources.*

of 7.2 billion euros. 46% of married couples/couples in civil partnerships would lose out with this reform, which is around 6 million households, for which tax would increase by an average of €1,400 per year. 20% of these couples, which is 2.6 million households, would pay less tax as a result of this reform, while the average gain would be €450 per year and the median gain would be €480. The median gain/disposable income ratio would be 1%, i.e. half of those who benefit from the reform would see their disposable income increase by less than 1%. Finally, around 4.3 million households are unaffected by this reform, with half of them not being taxable before the reform.

The reform creates people who lose out in all standard of living deciles, but they are concentrated at the top of the distribution: 60% of those who lose out fall into the final 3 deciles, compared with 6% falling into the first 2 deciles (Figure II). The percentage of people who lose out is greater in the ninth and tenth deciles, with a high average loss amount (€1,117 and €2,184 per year, respectively). In contrast, the median loss amounts are significantly lower, showing an uneven distribution of losses within each standard of living decile: the losses are greater in the top decile. However, expressed as a percentage of disposable income, the median loss rate is lower for the ninth and tenth decile (less than 1%), while it reaches almost 3% in the intermediate deciles (Table 3).

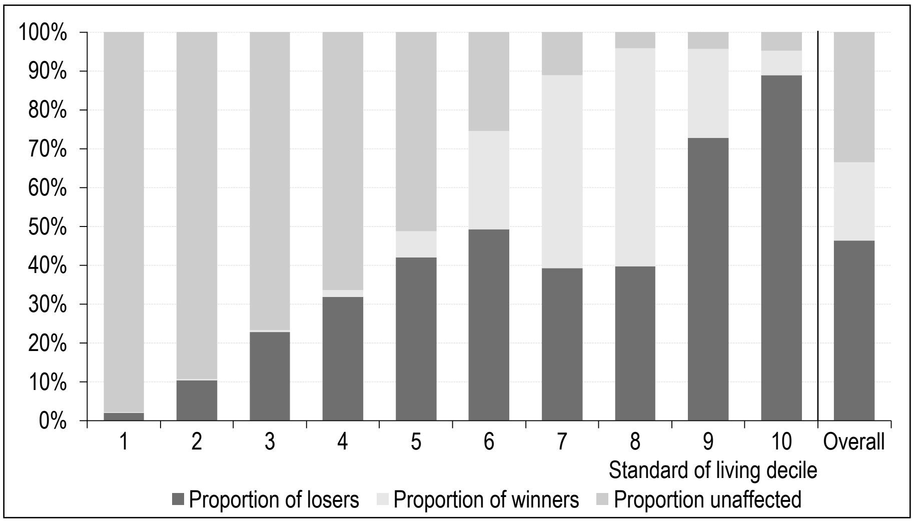
Losses in the upper deciles are explained by the fact that the higher the incomes, the greater the income gap between partners; therefore, the advantage afforded by the marital quotient increases as the couple's income rises (Figure II). In practice, the abolition of the marital quotient means a high average loss for these couples. Furthermore, as these couples have high incomes,

Table 3 – **Losses and gains for married couples or couples in civil partnerships, by standard of living decile – Scenario 1**

Standard of living decile	1	2	3	4	5	6	7	8	9	10	Total
Average loss	*ns*	-671	-827	-1,022	-1,086	-1,083	-1,151	-1,227	-1,117	-2,184	-1,405
Median loss	*ns*	-462	-689	-901	-916	-853	-836	-762	-526	-715	-729
Median loss to disposable income ratio (%)	*ns*	-1.9%	-2.6%	-3.0%	-2.9%	-2.2%	-2.0%	-1.4%	-0.9%	-0.9%	-1.5%
Average gain	*ns*	*ns*	*ns*	*ns*	351	428	506	475	365	281	448
Median gain	*ns*	*ns*	*ns*	*ns*	371	484	546	508	322	135	481
Median gain to disposable income ratio (%)	*ns*	*ns*	*ns*	*ns*	0.8%	1.0%	1.1%	1.0%	0.6%	0.1%	1.0%

Notes: The standard of living deciles are estimated for the total population. *ns*: not significant as the number of observations is less than 50 couples.
Reading note: In the second standard of living decile, the available income of couples that lose out decreases by an average of €671. Half of these couples lose less than €462 per year and less than 1.9% of their disposable income.
Source and Coverage: INSEE, ERFS 2014 (updated 2016); INSEE-DREES-Cnaf, Ines 2016 ; married couples or couples in civil partnerships, Metropolitan France. Authors' computations.

Figure II – **Losers, unaffected couples and winners among married couples or couples in civil partnerships, by standard of living decile – Scenario 1**



Note: The standard of living deciles are estimated for the total population.
Source and Coverage: INSEE, ERFS 2014 (updated 2016); INSEE-DREES-Cnaf, Ines 2016 ; married couples or couples in civil partnerships, Metropolitan France. Authors' computations.

the advantage associated with the family tax quotient is more often saturated, which limits the possibilities of optimising the units linked to dependent children between the two fiscal households. Those who lose out and are in the first deciles are single-income couples who become taxable as a result of the individualisation of taxation. Households that benefit are concentrated in deciles 6, 7, 8 and 9, which contain 90% of those that benefit. These couples are those for whom the optimisation of tax units between the two fiscal households makes it possible reduce the total amount of tax payable by the couple.

3.2. Scenario 2 – Change to the Number of Units with the Option of Individualisation

This reform consists in applying tax units in accordance with the OECD-modified equivalence scale and thus makes it possible to address the criticism regarding inconsistency between tax units and implicit ability to pay in the measurement of standards of living. First, we study the effect of a decrease in the number of tax units allocated to married couples or couples in civil partnerships from 2 to 1.5, while leaving the tax household unchanged. In order to avoid excessively penalising married couples or couples in civil partnerships, with the knowledge that cohabitees each have the right to one unit, the choice of whether to declare their income jointly or separately is opened up to married couples and couples in civil partnerships. This reform brings income tax more in line with the principle of horizontal fairness, relying on the usual equivalence scales, and makes it possible to take into account economies of scale from living as a couple in line with the social system (a couple receives 1.5 times the amount of the individual RSA). It thus addresses the criticism relating to the ability to pay and the number of units allocated. This reform limits the advantage associated with the marital quotient for married couples or couples in civil partnerships, but it does not resolve the problem of not taking into account the situation of cohabitees. This is why we have also evaluated the effects of opening up to cohabiting couples this option of choosing between separate declaration and joint declaration with 1.5 tax units for the couple.

To simulate this reform for married couples or couples in civil partnerships, we have changed the number of units associated with the marital quotient by allocating them 1.5 tax unit instead of 2 units, with the other half units linked, in particular, to dependents remaining unchanged. In order to allow them to opt for a separate declaration, we simulate an individualised tax in which the tax units allocated in respect of dependent children minimises the total amount of tax payable.

The reduction of the number of units granted for married couples or couples in civil partnerships with the option of individualisation would lead to an increase in tax revenue of 4.8 billion euros. 45% of the couples would lose out with this reform, which is around 5.8 million households, for which tax would increase by an average of €1,000 per year; the median loss would be €680 and half of the couples would lose less than 1.3% of their disposable income. 17% of the couples, which is 2.2 million households, would pay less tax as a result of this reform, while the average gain would be €430 per year; the median gain would be fairly similar at €435 which is less than 1% of the disposable income (Figure III-A).

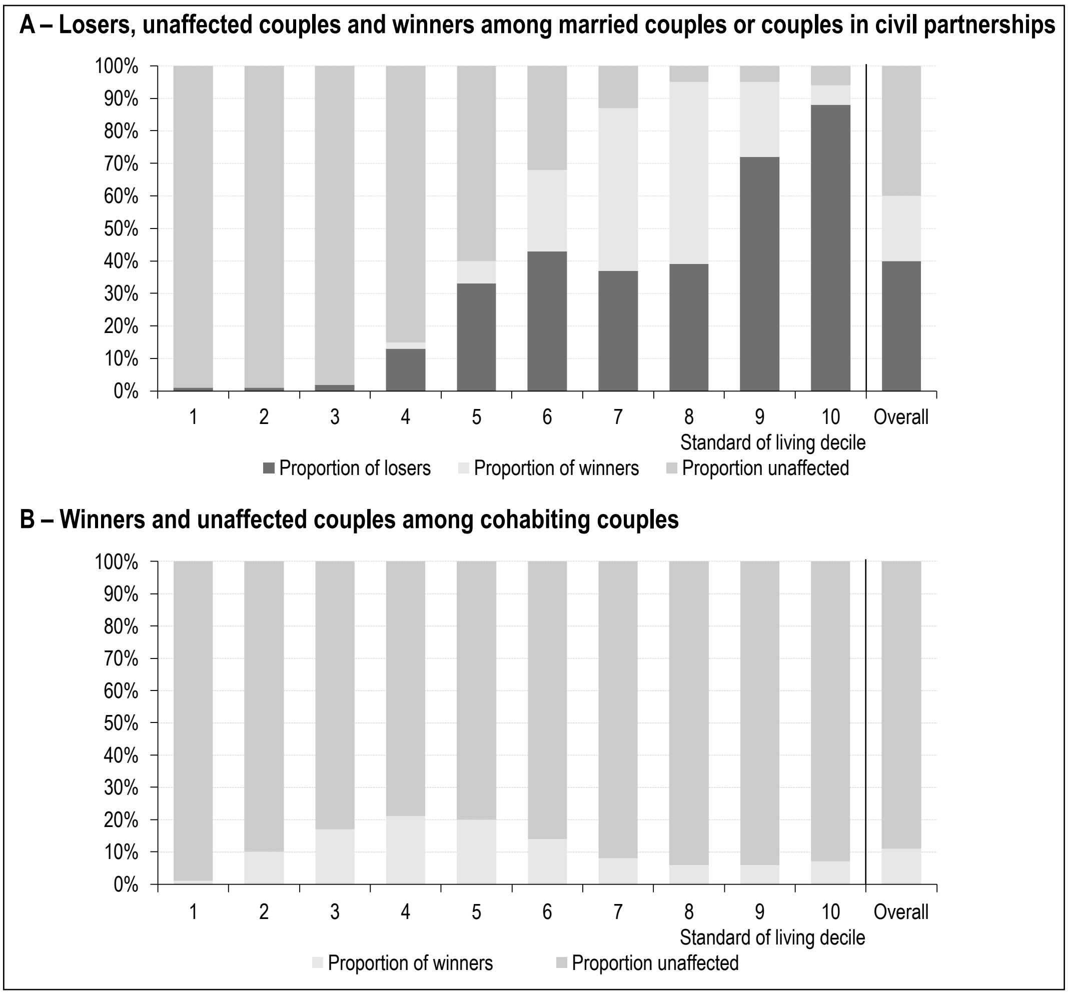
Households that benefit are concentrated in deciles 7, 8 and 9 (which contain 80% of households that benefit). These are couples that opt for individualisation of taxation and are thus able to allocate the tax units associated with children so as to reduce their tax liability, which they could not do under the mandatory marital quotient system. The households that lose out appear in the 3rd decile, with a median loss of €430 per year, which is 1.2% of the disposable income. 64% of households that lose out fall into the final three deciles and they are particularly concentrated in the 9th and 10th deciles, with an average loss of around €900 per year and €1,530 per year, and the median weight of the loss as a percentage of disposable income would be around 1% (Table 4-A). The reform leaves almost 5 million households in the same situation as before, with 57% not being taxable prior to the reform.

Secondly, we align the tax regime for cohabiting couples with that used for married couples or couples in civil partnerships. Thus, they also have the option of jointly declaring their resources and receiving 1.5 tax units. Only 11% of them would obtain an advantage from opting for joint taxation and would thus benefit from an average tax reduction of €930 and a median tax reduction of €682 (Figure III-B and Table 4-B), implying a fall in tax revenue of just under €300 million.

3.3. Scenario 3 – Capping the Marital Quotient at 3,054 Euros

To address the criticism regarding the pooling of resources of married couples/couples in civil partnerships and to limit the advantage of the marital quotient for high earners, a cap on the marital quotient at the same level as that of

Figure III – **Impact of Scenario 2 by standard of living decile**



Note: The standard of living deciles are estimated for the total population.
Source and Coverage: INSEE, ERFS 2014 (updated 2016); INSEE-DREES-Cnaf, Ines 2016 ; married couples or couples in civil partnerships, Metropolitan France. Authors' computations.

Table 4 – **Losses and gains for couples, by standard of living decile – Scenario 2**

A – Married couples or couples in civil partnerships

Standard of living decile	1	2	3	4	5	6	7	8	9	10	Total
Average loss	ns	ns	ns	-467	-632	-705	-701	-717	-752	-1,040	-941
Median loss	ns	ns	ns	-335	-578	-673	-679	-679	-519	-679	-621
Median loss to disposable income ratio (%)	ns	ns	ns	-1.2%	-1.8%	-1.8%	-1.6%	-1.3%	-0.9%	-0.9%	-1.2%
Average gain	ns	ns	ns	ns	350	428	505	475	365	281	448
Median gain	ns	ns	ns	ns	365	485	546	508	322	135	481
Median gain to disposable income ratio (%)	ns	ns	ns	ns	0.8%	1.0%	1.1%	1.0%	0.6%	0.1%	1.0%

Reading note: In the fifth standard of living decile, the available income of couples that lose out decreases by an average of €632 and half of these couples lose less than €578 per year, which is less than 1.8% of their disposable income.

B – Cohabiting couples

Standard of living decile	1	2	3	4	5	6	7	8	9	10	Total
Average gain	ns	ns	892	801	873	787	ns	ns	ns	ns	932
Median gain	ns	ns	795	579	821	646	ns	ns	ns	ns	682
Median gain to disposable income ratio (%)	ns	ns	3.2%	1.8%	1.8%	1.4%	ns	ns	ns	ns	1.9%

Reading note: In the sixth standard of living decile, the available income of cohabiting couples would increase by an average of €787 per year if they have the option of opting for joint taxation with a marital tax quotient of 1.5 units. Half of the cohabiting couples in the sixth decile would gain more than €646 per year, more than 1.4% of their disposable income.
Note: The standard of living deciles are estimated for the total population. ns: not significant as the number of observations is less than 50 couples.
Source and Coverage: INSEE, ERFS 2014 (updated 2016); INSEE-DREES-Cnaf, Ines 2016 ; married couples or couples in civil partnerships, Metropolitan France. Authors' computations.

the family tax quotient can be proposed. The fiscal unit remains the married couple or couple in a civil partnership, the unit system remains the same (2 tax units for a married couple/couple in a civil partnership) and the tax advantage associated with the marital quotient is capped under the same terms as the family quotient, i.e. at €1,527 per half tax unit for 2018 or €3,054 per full unit (partner). As with Scenario 2, this reform has never been simulated. It does not change the basic principles of the current system and therefore avoids debates crystallising around the individualisation of income tax and ability to pay. It is easy to explain, as it is a question of capping the tax advantage related to having a dependent partner in the same way as that related to the presence of dependents such as children. The situation remains unchanged for the least wealthy couples (including those with a specialised organisation); only the wealthiest couples will be affected.

However, this reform does not address the issue of taking into account couples living in a common-law partnership. It does not address the family-oriented principles behind income tax. It does not change the incentives to work for secondary workers, who are most often women, particularly for couples in the first deciles, in which the proportion of single-income couples is highest. In deciles 1 and 2, half of the couples are single-income couples (Online Appendix C5). This reform does not allow for the reduction of the gendered division of labour within couples. Nevertheless, the gains in tax revenue associated with this reform could finance a family policy (parental leave, early childcare arrangements) that would make it possible to reduce the gendered division of labour. It can also be seen as a step in the gradual transformation of the taxation of couples.

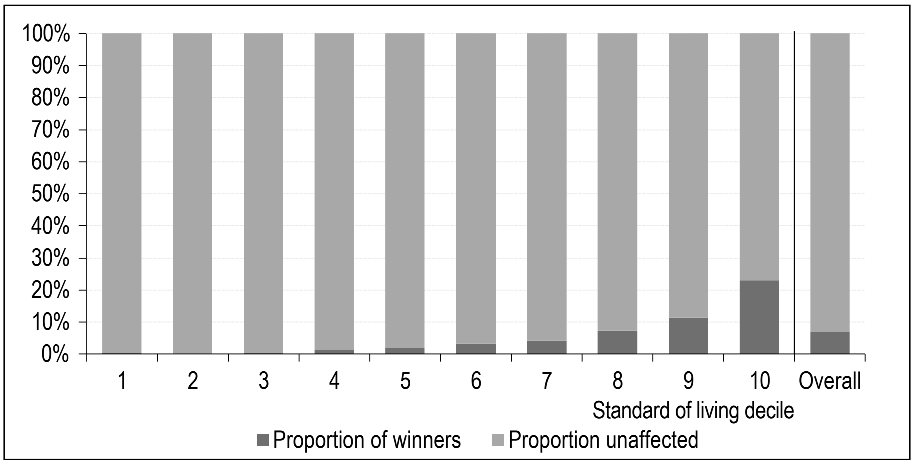
The capping of the marital quotient at the same level as the family tax quotient creates additional tax revenue of 2.9 billion euros. 7% of couples would lose out with this reform, which is fewer than one million households, for which tax would increase by an average of €3,232 per year (Table 5, Figure IV); the median loss is €1,800 per year and half of the couples lose less than 2.6% of their disposable income. No couples would be better off under this reform. It entails a greater average loss than the other two reforms, which is concentrated at the top of the distribution of standards of living. Households in the first 4 deciles are not affected. The loss is

Table 5 – **Losses and gains for married couples or couples in civil partnerships, by standard of living decile – Scenario 3**

Standard of living decile	1	2	3	4	5	6	7	8	9	10	Total
Average loss	ns	ns	ns	ns	-1,049	-1,162	-1,151	-1,670	-1,966	-4,926	-3,232
Median loss	ns	ns	ns	ns	ns	-824	-670	-1,093	-1,509	-3,024	-1,793
Median gain to disposable income ratio (%)	ns	ns	ns	ns	ns	-1.8%	-1.4%	-2.2%	-2.6%	-3.3%	-2.6%

Reading note: In the sixth standard of living decile, the available income of the couples decreases by an average of €1,162. Half of the couples lose less than €824 per year, which is less than 1.8% of their disposable income.
Source and Coverage: INSEE, ERFS 2014 (updated 2016); INSEE-DREES-Cnaf, Ines 2016 ; married couples or couples in civil partnerships, Metropolitan France. Authors' computations.

Figure IV – **Losers and unaffected couples among married couples or couples in civil partnerships, by standard of living decile – Scenario 3**



Note: The standard of living deciles are estimated for the total population.
Source and Coverage: INSEE, ERFS 2014 (updated 2016); INSEE-DREES-Cnaf, Ines 2016 ; married couples or couples in civil partnerships, Metropolitan France. Authors' computations.

Table 6 – **Profiles of winners, losers or unaffected married couples or couples in civil partnerships in the three simulated reforms of the marital quotient (MTQ) (%)**

	Individualisation			MTQ 1.5 units and choice of individualisation			MTQ capping	
	Winners	Unaffected	Losers	Winners	Unaffected	Losers	Unaffected	Losers
All couples	*20*	*34*	*46*	*20*	*38*	*40*	*93*	*7*
By family configuration								
Couples without children	20	28	52	20	36	44	94	6
Couples with one child	24	30	46	24	35	41	93	7
Couples with 2 children	24	39	37	24	45	31	92	8
Couples with 3 or more children	7	62	31	7	65	28	89	11
By partners' employment status								
Dual-income couples	25	28	47	25	32	43	94	6
Single-income couples	13	41	47	12	49	39	87	13
Unemployed couples	18	36	46	18	44	38	95	5
By age of the reference person								
Aged 18-29	24	44	32	24	49	27	99	1
Aged 30-39	23	40	37	23	44	33	95	5
Aged 40-49	20	39	41	20	42	38	91	9
Aged 50-59	20	25	55	20	31	49	91	9
Aged 60+	18	32	49	18	40	42	94	6

Reading note: In the case of individualisation of taxation of married couples or couples in civil partnerships, 53% of couples without children would face increased tax and would lose out due to the reform.
Source and Coverage: INSEE, ERFS 2014 (updated 2016); INSEE-DREES-Cnaf, Ines 2016 ; married couples or couples in civil partnerships, Metropolitan France. Authors' computations.

greatest for the 10th decile (with a median loss of €3024 per year, which is 3.3% of disposable income), which contains the highest proportion of couples that lose out, 31%. Almost 12 million couples are unaffected by this reform, with 27% of them not being taxable before the reform. This percentage is lower than for the other two reforms, as all taxable couples for whom the advantage afforded by the marital quotient is below the cap are also unaffected by the reform.

Table 6 shows the breakdown of those better off, worse off and unaffected by the three reforms, in accordance with the characteristics of the household. Both individualisation of taxation and the second scenario have little effect on couples with 3 or more children, who are over-represented among non-taxable households. Single-income couples are under-represented among those better off as a result of individualisation of taxation. The capping of the marital quotient particularly impacts single-income couples (13% lose out). Single-income couples without children are over-represented among those that lose out due to individualisation of taxation.

* *
*

The marital quotient is a mechanism that is poorly understood by the general public. The stakes in terms of tax justice, efficiency or redistributive choices are thus little discussed in the democratic debate. However, it is the subject of much criticism and controversy among economists. It is not adapted to new family configurations because it does not take into account the private solidarity between cohabiting couples. It potentially disincentivises married women from working, as it mounts to applying a higher marginal tax rate to the income of the secondary workers than in the case of individualised taxation. It does not conform to the principle of the households' ability to pay as the tax units associated with it do not comply with the equivalence scales usually used to measure standards of living. Finally, the tax reduction associated with the marital quotient increases with the couple's income and is only capped for very high earners, which alters the redistributive capacity of income tax.

To address these criticisms, we simulate three reform scenarios that partially correct these problems. The proposed approach is static and does not take into account behavioural changes in respect of decisions concerning marriage or employment. Using the Ines microsimulation model, we estimate the gains in tax revenue that these reforms would generate and show that those who lose out are concentrated in the upper deciles of standards of living.

Individualisation results in the highest gain in tax revenue (around 7 billion euros), compared with

3.8 billion when the marital quotient is reduced to 1.5 tax units and 3 billion with the marital quotient cap. In the first two scenarios, around 45% of couples lose out, compared with 7% for Scenario 3. The median losses correspond to 1.5%, 1.3% and 2.6% of the disposable income of the households concerned, respectively. Finally, the capping of the family quotient (Scenario 3) makes it possible to concentrate those who lose out at the top of the distribution of standards of living, as 83% of those who lose out fall into the final three deciles, compared with around 60% for the other two reforms.

To avoid increasing the tax burden on households, the reforms can be carried out while returning a constant level of tax yield by calibrating income tax reductions so as to distribute the gains among taxpayers (such as, for example, a tax reduction, changes to tax bracket thresholds, reform of the rebate, etc.). All or part of the additional tax revenue could be used to strengthen family policy.

The microsimulation work presented in this article indicates that the marital quotient, as it exists, implies a choice regarding the distribution of the tax burden, which is particularly favourable to households in the final standard of living decile. A reform of this mechanism could be considered in the context of a review of the taxation of household income aimed at making it simpler, clearer, more redistributive and more focused on gender equality. ☐

Link to Online Appendices:
https://insee.fr/en/statistiques/fichier/5349534/ES_Allegre-et-al_Online-Appendix.pdf

BIBLIOGRAPHY

Allègre, G., Bart, V. & Castell, L. (2015). Travail domestique : Les couples mono actifs en font ils vraiment plus ? *Économie et Statistique*, 478-479-480, 189–208. https://doi.org/10.3406/estat.2015.10562

Amar, É., Guérin, S. (2007). Se marier ou non : le droit fiscal peut-il aider à choisir ? *Économie et Statistique*, 401, 23–37. https://doi.org/10.3406/estat.2007.7104

André, M. & Sireyjol, A. (2019). Imposition des couples et des familles : effets budgétaires et redistributifs de l'impôt sur le revenu. Insee, *Document de travail* N° G2019/10. https://www.insee.fr/fr/statistiques/4253854

Bloch, M., Breton, D. & Prioux, F. (2005). Deux ou trois enfants ? *Population,* 60, 489–522. https://doi.org/10.3917/popu.504.0489

Bonnet, C., Garbinti, B. & Solaz, A. (2015). Les conditions de vie des enfants après le divorce. *Insee Première* N° 1536. https://www.insee.fr/fr/statistiques/1283568

Bonnet, C., Garbinti, B. & Solaz, A. (2016). Gender Inequality after Divorce: The Flip Side of Marital Specialization Evidence from a French Administrative Database. Insee, *Document de Travail* N° G2016/03. https://www.insee.fr/en/statistiques/2022141

Bourguignon, F. (1993). Individus, familles et bien-être social. *L'Actualité économique*, 69(4), 243–258. https://doi.org/10.7202/602119ar

Briard, K. (2017). L'élasticité de l'offre de travail des femmes : repères méthodologiques et principaux résultats pour la France. DARES, *Document d'études* N° 210. https://dares.travail-emploi.gouv.fr/publications/l-elasticite-de-l-offre-de-travail-des-femmes

CAF (2019). Congé parental. Où (en) sont les hommes ? *CAF.fr*; 24 octobre.

Carbonnier, C. (2007). L'impact de la fiscalité sur la participation des conjoints au marché du travail. DGTPE, *Documents de travail* N° 2007/05. https://www.tresor.economie.gouv.fr/Articles/2007/09/07/document-de-travail-de-la-dg-tresor-n-2007-05-l-impact-de-la-fiscalite-sur-la-participation-des-conjoints-au-marche-du-travail

Cavalier, C. (2013). L'organisation du patrimoine du couple l'épreuve du droit fiscal. Thèse Université Montesquieu - Bordeaux IV.

Collet, M. (2014). *L'impôt confisqué*. Paris: Odile Jacob.

Crossley, T. F. & Jeon, S.-H. (2007). Joint Taxation and the Labour Supply of Married Women: Evidence from the Canadian Tax Reform of 1988. *Fiscal Studies*, 28, 343–365. https://doi.org/10.1111/j.1475-5890.2007.00059.x

Echevin, D. (2003) L'individualisation de l'impôt sur le revenu : équitable ou pas ? *Économie & prévision*, 4, 149–165. https://doi.org/10.3406/ecop.2003.6925

Eidelman, A. (2013). L'imposition commune des couples mariés ou pacsés : un avantage qui n'est pas systématique. *Insee Analyses* N° 9. https://www.insee.fr/fr/statistiques/1521328

Glaude, M. (1991). L'originalité du système du quotient familial. *Économie et Statistique*, 248, 51–67. https://doi.org/10.3406/estat.1991.5605

Haut Conseil à la Famille (2011). Architecture de la politique familiale: éléments de problématique. Note adoptée par le HCF, 13 janvier.

Hourriez, J. & Olier, L. (1997). Niveau de vie et taille du ménage : estimation d'une échelle d'équivalence. *Économie et Statistique*, 308-309-310, 65–93. https://doi.org/10.3406/estat.1998.2591

Jaumotte, F. (2003). Les femmes sur le marché du travail: évidence empirique sur le rôle des politiques économiques et aures déterminants dans les pays de l'OCDE. *Revue économique de l'OCDE*, 2, 57–123. https://www.cairn.info/revue-economique-de-l-ocde-2003-2-page-57.htm

Landais, C., Piketty, T. & Saez, E. (2011). *Pour une révolution fiscale : un impôt sur le revenu pour le XXI*[e] *siècle*. Paris: Seuil.

Lanquetin, M.-T., Letablier, M.-T. & Périvier, H. (2004). Acquisition des droits sociaux et égalité entre les femmes et les hommes. *Revue de l'OFCE*, N° 90, 461–488. https://doi.org/10.3917/reof.090.0461

Legendre, F. & Thibault, F. (2007). Les concubins et l'impôt sur le revenu en France. *Économie et Statistique*, 401, 3–21. https://doi.org/10.3406/estat.2007.7103

Leturcq, M. (2012). Will you civil union me? Taxation and civil unions in France. *Journal of Public Economics*, 96(5-6), 541–552. https://doi.org/10.1016/j.jpubeco.2012.02.008

Martin, H. (2017). Calculer le niveau de vie d'un ménage : une ou plusieurs échelles d'équivalence ? *Économie et Statistique*,491-492, 93–108. https://doi.org/10.24187/ecostat.2017.491d.1907

Martin, H. & Périvier, H. (2018). Les échelles d'équivalence à l'épreuve des nouvelles configurations familiales. *Revue Économique*, 69(2), 303–334. https://doi.org/10.3917/reco.pr2.0114

Morin, T. (2014). Écarts de revenu au sein des couples. Trois femmes sur quatre gagnent moins que leur conjoint. *Insee Première* N° 1492. https://www.insee.fr/fr/statistiques/1281400

Ponthieux, S. (2012). La mise en commun des revenus dans les couples. *Insee Première* N° 1409. https://www.insee.fr/fr/statistiques/1281044

Sterdyniak, H. (1992). Pour défendre le quotient familial. *Économie et Statistique*, 256, 5–24. https://doi.org/10.3406/estat.1992.5666

Thomas, A. & O'Reilly, P. (2016). The Impact of Tax and Benefit Systems on the Workforce Participation Incentives of Women. OECD *Taxation Working Papers* N° 29. https://doi.org/10.1787/d950acfc-en