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# PENSIONS REFORM : WHAT REDISTRIBUTIVE EFFECTS ARE EXPECTED ?

IPP Policy Briefs

# 44

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A consequence of the French pensions reform whose aim is to establish a universal pension system having defined yield and operating on a points basis will be to reinforce the contributory nature of the formula for calculating pensions. Whereas in the current system the contributory core has counter-redistributive effects – increasing the pensions inequality relative to the salaries inequality – the new system would become neutral and the reform would thus lead to a reduction in pension inequalities. The reason for this counter-intuitive effect – i.e. the effect whereby making the system more contributory reduces inequalities – is to be found in the corrections made by implicit mechanisms in the current system, such as the rules of taking the 25 best years or of revaluating the salaries included in the pensions calculation in line with inflation. Abolishing the rule of number of years of contributions in the pensions scale would also reinforce this effect by being more beneficial to individuals who have had low mean salaries. In this policy brief, we show these effects based on simulations conducted on the population of employees in the French private sector. In addition to individuals on low salaries, women would also benefit significantly from this change in the calculation formula.

- The current pension system can be considered as being redistributive because the pensions inequalities are smaller than the salaries inequalities. The non-contributory schemes play a major part in explaining this outcome.
- But actually, the core of the system – i.e. the contributory entitlements – works in favour of ascending careers and penalises short careers, generating major counter-redistributive effects.
- Putting in place a points system taking into account all of the salaries as revaluated by the growth in the salaries would eliminate those counter-redistributive effects.
- Furthermore, doing away with the concept of number of years of contributions in the pension calculation rate (theoretical replacement rate) should be relatively more advantageous for the lower end of the salaries distribution, because people on such salaries validate fewer quarters of contributions on average.
- With solidarity mechanisms remaining constant, going over to a strictly contributory system for calculating pensions would benefit the 40% on the lowest salaries, as well as women, who would benefit more than men.



The pensions reform currently being considered was presented during the presidential election campaign through the slogan "for each euro contributed, the same pension entitlements for everyone". That slogan, which embodies the reinforcement of the contributory nature of the pension system, has led some to conclude that an effect of the reform would be to reduce the current level of solidarity. The High Commissioner for Pensions Reform, Mr Jean- Paul Delevoye, has emphasised on several occasions during the preparation of the reform that the campaign slogan concerned the "euros contributed", and that the reform would not imply that the solidarity mechanisms currently not funded by contributions would be discontinued. This policy brief does not deal with those solidarity mechanisms and with converting them into the defined-yield points system currently under discussion. It aims to analyse the redistributive effects as regards changing the formula for calculating pensions, which corresponds to the contributory core of the system. Contrary to a preconceived idea, the reform could reduce pensions inequalities while also reinforcing the contributory relationship.

## Observations on the current system

The French pension system is underpinned by a contributory logic, since pension entitlements are acquired in exchange for contributions. But reducing pensions inequalities is also one of the objectives assigned to the pension system. This solidarity objective of the system justifies a vertical redistribution (from the higher to the lower incomes) and a redistribution between households with the same incomes (e.g. family entitlements). This policy brief focuses on the redistributive effects between income levels and between women and men.

### A system that, overall, is redistributive ...

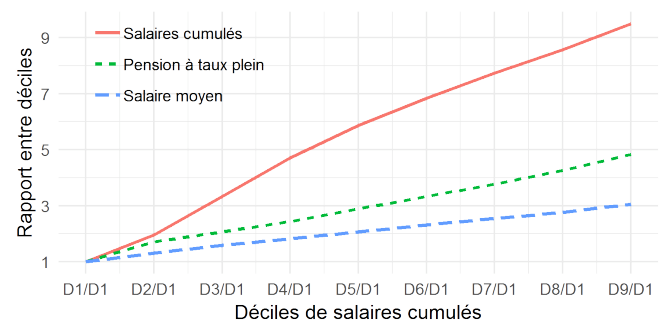
The redistributive nature of the pension system can be analysed on the basis of various indicators. We use the approach followed by Aubert et Bachelet (2012), who showed that the current system is redistributive because the dispersion of pensions is lower than the dispersion of cumulative salaries. Figure 1 shows similar results by comparing the difference between each decile and the first decile of the salaries and pensions distributions for individuals born in 1946<sup>1</sup>.

1. Aubert et Bachelet (2012) used the Destinie Model developed by Insee (the French official statistics authority), and calculated the pensions of a sample of individuals questioned in the Patrimoine Survey. We used the Pensipp model for calculating the pensions of a sample of individuals receiving only one pension from the general social security scheme and taken from the Inter-scheme sample of contributors (l'Echantillon interrégime des cotisants, EIC) database. See box 2 for a detailed description of the methodology used.

The difference between the 9th and the 1st deciles of the cumulative salaries is 9.7 as against 4.9 for the pensions distribution, thereby confirming the reduction in income disparities achieved by the pension system. The dispersion of the mean salaries remains lower : the mean does not take into account the dispersions in length of employment that are, conversely, reflected in the dispersion of the pensions<sup>2</sup>.

A large share in primary pension entitlement spending<sup>3</sup> comes from solidarity mechanisms. Thus, out of 269 billion euros in primary entitlement spending (or 12% of GDP), all of the solidarity mechanisms accounted for 60.9 billion euros in 2016, i.e. 22.6% of primary pension entitlements or 2.7% of GDP (Pierre Cheloudko, DREES, 2019). Those mechanisms offer entitlements to future pensioners for having children (in particular by increasing the number of years of contributions taken into account), in the event of career accidents (unemployment, sickness, etc.) through credited quarters of contributions, and minimum pensions (contributory minimum, and old age minimum) or entitlements for incapacity to work.

Figure 1 – Inter-decile differences in salaries and pensions



Interpretation : The ratio between the 9th and the 1st salary decile (D9 :D1) makes it possible to compare the salaries of the "richest" 10% of the distribution with the "poorest" 10%. Here, the ratio of the cumulative salaries of the 9th decile to those of the 1st decile is equal to 9.7.

NB : The pensions correspond to the pensions at the time of claiming, calculated at the full-pension age.

Coverage : Pensioners having only one pension from the general social security scheme, cohort of 1946.

Source : EIR 2008 and 2012; EIC 2013 and 2008, Drees; Pensipp.

### ... in spite of a counter-redistributive core

These solidarity mechanisms are in addition to the contributory core. That core forms the pensions that depend directly on the total amount of the salaries or of the contributions of the future pensioners. Unlike the solidarity mechanisms, the contributory core is not there to make re-

2. Furthermore, the difference is larger for women, who have more frequent career interruptions.

3. Primary pension entitlements correspond to entitlements acquired by a person over their own personal career, and do not therefore cover, for example, survivor's (reversionary) pension. We focus on primary pension entitlements in this brief.

**Box1 : The redistributive effects of the formula for calculating pensions**

Whether the formula for calculating pensions takes into account the last salaries or the whole of the career significantly influences the differences in amounts of pension between individuals. Currently, only the 25 best years are taken into account for calculating the reference salary in the general social security pension scheme, which is unfavourable to career paths that are relatively flat, i.e. to individuals whose salary growth is lower than the mean salary growth. The following example enables the mechanisms at work to be better understood.

The table below shows a simplified case in which Camille and Dominique work for two periods. They both earn the same salary for the first period, but Dominique's salary path is more dynamic than Camille's. Taking into account the last salaries for calculating their pensions (which is what happens currently) with a replacement rate of 50% distorts the difference between Camille and Dominique in the income distribution : Camille's mean income corresponds to 75% of Dominique's, whereas her pension only represents 67% of Dominique's.

When the whole of the career is taken into account, this difference is reduced significantly : the 2€500 initially allocated to Camille's and Dominique's pensions are reallocated so that each of their pensions reflects the whole of the respective salary path. The idea is therefore to find the pension rate  $x$  such that  $(x \times 1500) + (x \times 2000) = 2500$ , i.e. a pension rate of 71.4%. Applied to their mean salaries, that rate means that Camille and Dominique are then paid 1€071 and 1€428 respectively. In the first case, one euro contributed by Camille earned her less than one euro in pension, whereas one euro contributed by Dominique earned her more. This situation reflects the "redistribution" created by the current system from relatively flat careers to more dynamic careers. Taking into account the whole career makes it possible to remove this counter-redistributive mechanism.

Employee	Salary		Mean	Pension
	Period 1	Period 2		
<i>Taking account of the last salaries</i> Pension rate = 50% of salary 2				
Camille	1000	2000	1500	1000
Dominique	1000	3000	2000	1500
<i>Taking account of the whole career</i> Pension rate = 71.4% of mean of salaries 1 + 2				
Camille	1000	2000	1500	1071
Dominique	1000	3000	2000	1428

Revaluating pensions on the basis of prices rather than salaries amplifies this counter-redistributive effect. Generally speaking, revaluating pensions to keep pace with inflation implies that the earlier the contribution is paid in during the career, the lower the entitlements it gives, because growth in salary is higher than growth in prices. People who have intermittent or bumpy career pathways therefore lose out relatively compared with individuals who have full careers : when taking the 25 best years into account, career interruptions are not taken into account but contributions paid in at the beginning of the career are counted. The periods of contributions taken into account are therefore revaluated at a lower level than the level of revaluation of the periods taken into account in a full career.

distributions between pensioners. However, the amounts of pension associated with the core are not uniformly proportional to salaries. Certain implicit mechanisms reduce the contributory-ness of the system : in the general social security pension scheme, calculating the reference salary is based on the best 25 years of salaries, which are revaluated by inflation.

Taking into account the 25 best years for calculating the reference salary in the general social security pension scheme favours the individuals having the most dynamic salary pathways, to the detriment of the flatter pathways. This system of calculation was initially put in place to protect individuals from career interruptions and from temporary falls in income. The initial intuition was based on the observation that the average of the 25 best years of salaries was necessarily higher than the average of the salaries over the whole career, and that individuals who had "bad years" would benefit from that rule. In reality, in or-

der to understand the redistributive effects of such a rule, it is necessary to analyse which individuals are relative winners or losers with budget remaining unchanged. **Box 1** shows that this rule is relatively more advantageous for ascending careers that it is for less dynamic careers. Since the most dynamic careers are generally associated with the highest salaries, this implies a counter-redistributive effect. This "reverse" redistribution effect also takes place from short careers to full careers (Aubert et Duc, 2010).

The contributory core of the current system offers less pension per euro contributed to individuals on low salaries.

The salaries that are entered into the pension calculation accounts being revaluated as a function of inflation am-

plifies this counter-redistributive effect of the formula for calculating pensions, in particular for people having intermittent or bumpy career paths. Since the career interruptions of such individuals are excluded from the 25 best years, the contributions paid in at the beginning of the career are taken into account at a lower level than the end-of-career contributions, due to revaluation following inflation rather than salary growth.

Figure 2 shows the effect of these various implicit mechanisms. For each decile of cumulative salaries, the graph indicates the mean difference in pension level between a purely contributory system and the core of the current system (red curve). The purely contributory system is a system in which the proportionality between contributions and pension is the same for all of the individuals. It can be seen on the graph that, in the current system, the individuals in the first four deciles have lower pensions (excluding non-contributory entitlements) than the pensions they would have had in a purely contributory system. Conversely, the individuals above the median cumulative salary have higher pensions, which suggests that a share of the contributions from the poorest individuals fund, in part, the pensions of the workers having the highest cumulative salaries. Here, our findings are consistent with those of Aubert et Bachelet (2012) : while the system is generally progressive, this is solely due to the solidarity mechanisms, because the core of the system is favourable to the individuals having the highest salaries.

The curves in dashed lines make it possible to understand the significance of the various implicit mechanisms. A pension system calculating the reference salary (Mean Annual Salary, MAS) over the entire career rather than over the 25 best years, and using the Mean Salary Per Capita (MSPC) to revalue the salaries entered into the pension calculation accounts would thus come close to a purely contributory system compared with the current system (violet curve).<sup>4</sup>

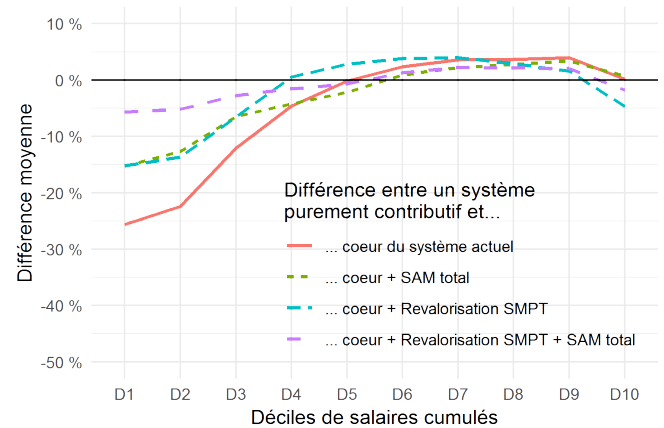
## The expected effects of the reform

Going over to a defined-yield system implies making a substantial change to the formula for calculating pensions. In a defined-yield system, each euro of contribution gives an entitlement to points and the value of those points is index-linked to mean salary.<sup>5</sup> Furthermore, the concept of

4. The residual difference between the violet curve and the purely proportional case results from other mechanisms existing in the pension calculation formula, e.g. the ceiling on the time-apportionment coefficient, the ceiling on contributions, or the rule of having to work the equivalent of 200 hours at the minimum wage in order to validate one quarter of contributions.

5. The principle of contributory fairness means that the contributions paid in at two different times in the career give the same pension entitlements. This principle is necessary so that each euro contributed gives an entitlement to the same amount of pension regardless of the contribution period, and implies that the value of the point be revalua-

Figure 2 – The effect of the pension calculation formula in the current system



Interpretation : Compared with a strictly contributory system, the current formula for calculating pension reduces the amount of pensions by 26% for the first decile of the distribution of the cumulative salaries.

NB : The total amount of pension in the absence of mechanisms, that amount corresponding to a horizontal line, is obtained by applying a coefficient to the cumulative salaries of the individuals. That coefficient corresponds to the ratio of the bill for the pensions calculated at full-pension rate to the bill for the cumulative salaries. The cumulative salaries are revaluated on the basis of the Mean Salary Per Capita (MSPC). The total Mean Annual Salary (SAM) corresponds to the reference salary calculated over the whole career. Coverage : Pensioners having only one pension from the general social security scheme, cohort of 1946.

Source : EIR 2008 and 2012 ; EIC 2013 and 2008, Drees ; Pensipp.

number of years of contribution disappears from the formula for calculating pensions, only the claiming age then counts in the scale applied to workers at the time they start claiming their pension entitlements. Here, we study the effect of changing the formula on the pension at the time it starts being claimed : we limit ourselves to the contributory core of the system, since it is assumed that the solidarity mechanisms remain unchanged.

## Taking the whole of the career into account

The first change related to the reform is taking into account the whole of people's careers. The current system is based on a reference salary calculated over the best 25 years as revaluated by inflation, whereas the defined-yield system uses a number of points that reflect the career as a whole and whose value is index-linked to mean salary.

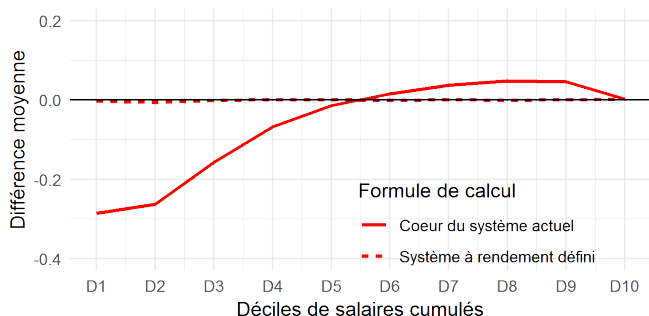
In order to neutralise the effect of individuals from different deciles retiring at different ages, we compared the pensions with a pension that was proportional to the cumulative salaries, assuming that the individuals retired at 65. Figure 3 presents these results by comparing the formula for calculating the pensions of the current system (solid line) with the new formula for calculating pensions in the points system (dashed lines).

As above, comparing the curves highlights the counter-

ted in line with mean salary (see IPP Policy Brief n° 42).

redistributive effect of the core of the current system, while the curve of the pension calculated with the defined-yield system coincides with the pension proportional to cumulative income over the entire career, which shows that the defined-yield system is perfectly contributory. Going over to a defined-yield system thus makes it possible to do away with all of the implicit mechanisms of the current system that are related to calculating the reference salary.

Figure 3 – The effect of the reform of the contributory core (at a claiming age set at 65)



Interpretation : Compared with an amount of pension in the absence of any mechanism, the current formula for calculating pension reduces the amounts of the pensions by 26% for the first decile of the distribution of the cumulative salaries in the sample in question. NB : The total amount of pension in the absence of mechanisms, that amount corresponding to a horizontal line, is obtained by applying a coefficient to the cumulative salaries of the individuals. That coefficient corresponds to the ratio of the bill for the pensions to the bill for the cumulative salaries. Coverage : Pensioners having only one pension from the general social security scheme, cohort of 1946. Source : EIR 2008 and 2012; EIC 2013 and 2008, Drees; Pensipp.

### The effect of the new scale

The effect of the reform shown in figure 3 also includes another major change to the calculation formula, namely the disappearance of the explicit reference to the concept of number of years of contributions in the pension calculation rate (theoretical replacement rate).

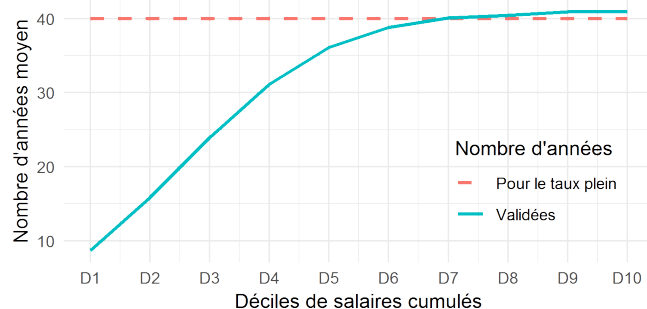
In the current system, the number of periods worked is directly included in the calculation formula via the time-apportionment coefficient and via the calculation of the deduction (reduced pension) for retiring early or of the premium (extra pension) for retiring late. The "full-pension" rate may be reached once the number of years of contribution is sufficiently high (e.g. 40 years for the cohort of 1946). Conversely, the scale of the defined-yield system is identical for all of the individuals in the same generation and the number of years of contributions is taken into account via the accrual of the points. Thus, only the claiming age is taken into account in the conversion coefficient.

In the current system, the individuals who benefit from the number of years of contributions being taken into ac-

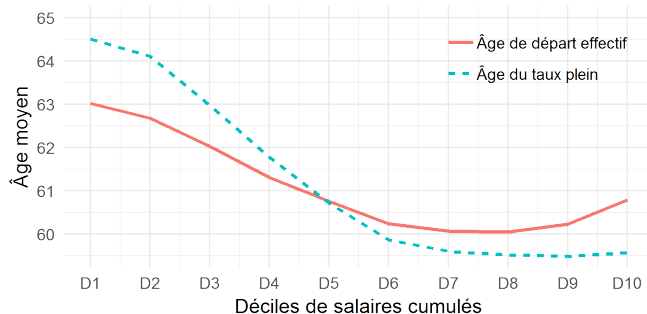
count in calculating the calculation rate (theoretical replacement rate) are those who have had long careers. Figure 4a indicates the mean number of years of contributions at the age of 60 according to the deciles of cumulative salaries : the workers who have the highest number of years of contributions at 60 are also the workers who have the highest cumulative salaries. Workers having low numbers of years of contributions at 60 are, mechanically, those who reach full-pension rate the latest, as shown by figure 4b. It can be seen, in particular, that the individuals in the first decile reach full pension at 64.5 on average, whereas those in the higher deciles reach full-pension age a little before 60<sup>6</sup>.

Figure 4 – Claiming ages and number of years of contributions by deciles of cumulative salaries

(a) Number of years of contributions at 60 by decile of cumulative salaries



(b) Mean age of reaching full pension and actual claiming age by deciles of cumulative salaries



Interpretation : The first graph shows that the first decile of the distribution of the cumulative salaries has a mean number of years of contributions of 9 years at 60. The second graph shows that, on average, the individuals in the first decile of the population reach full-pension rate at 64.5 and start claiming their pension entitlements at 63.

NB : For individuals claiming before they reach full pension, a theoretical full-pension age is calculated by extending the career until full pension is reached.

Coverage : Pensioners having only one pension from the general social security scheme, cohort of 1946.

Source : EIR 2008 and 2012; EIC 2013 and 2008, Drees; Pensipp.

Figure 4b also makes it possible to compare the full-pension age with the actual claiming age. It appears that the individuals in the lower salary deciles retire,

6. The mechanism of anticipated pension for long careers benefits the individuals whose pay is higher than average, which explains a full-pension age lower than 60 for the upper deciles of the cumulative salaries (COR, 2018).

on average, with an early-retirement deduction (reduced pension), whereas those in the upper deciles retire after the full-pension age and therefore receive a late-retirement premium (extra pension). Since the current deduction/premium scale is linear, the impact of retiring one year before or after full pension is thus the same at all ages : one extra year of contributions increases the conversion rate in the same way at 62 and at 65. In a defined-yield system, the conversion coefficient is calculated in such a manner as to be actuarially neutral, i.e., at each age, it depends on the retirement life expectancy for each generation (cohort). Since deferring the claiming age does not have the same effect in terms of percentage of the length of retirement at 62 and at 65, the conversion coefficient offers better pensions at later retirement ages.

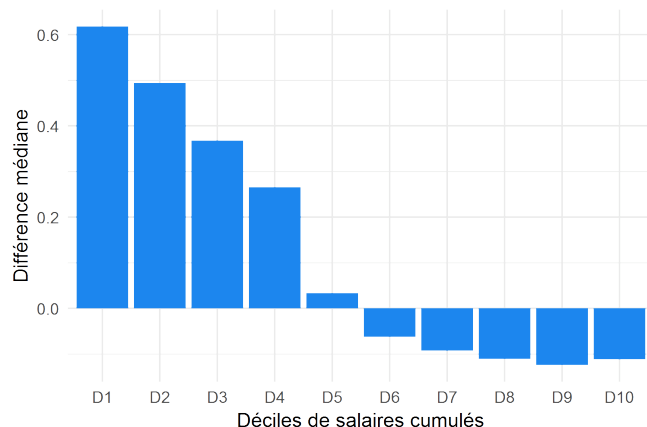
### The total effect of changing the formula

Changing the calculation formula re-establishes the contributory core and removes the "reverse" redistribution from flat careers to more dynamic careers. Furthermore, only the retirement age is taken into account in the pension calculation rate, which is beneficial to the people initially penalised by that criterion in the current system. Independently of the existing solidarity mechanisms, these two changes therefore affect the amounts of pension depending on the type of salary path of the individuals (salary growth gradient), and depending on the number of years for which they pay contributions.

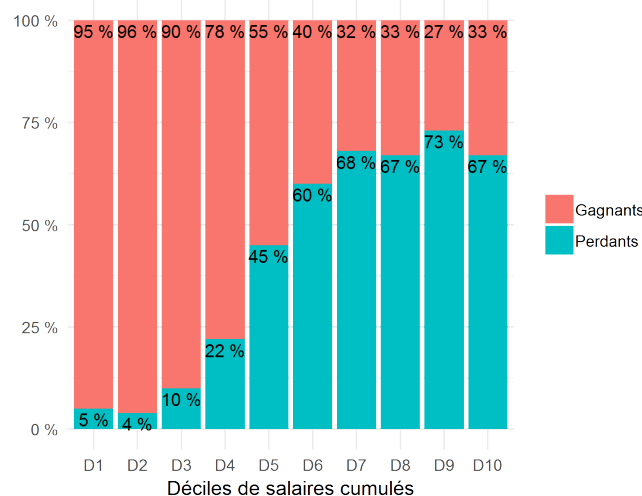
We have shown above that the salaries growth is lower for the lower end of the distribution of the cumulative salaries; those individuals also have careers that are more intermittent and bumpy than the individuals at the upper end of the distribution. For each decile of cumulative salaries, figure 5a shows the median difference in pension calculated with the formula of the current system and with the formula of the new system, while considering the actual claiming age for each individual. The change in the calculation formula increases by 60% the amount of pension for the individuals in the first decile and reduces it by less than 10% in the last decile, with the retirement age remaining unchanged. Within each decile of cumulative salaries, figure 5b shows the share of "winners", i.e. the individuals who benefit from the change in the pension calculation formula, and the share of "losers". In the first third of the distribution, at least 90% of the individuals benefit from this change in each decile. We should note here that the terms "losers" and "winners" are misleading because all of the future pensioners in the new system will receive a contributory pension that is strictly related to their past contributions.

Figure 5 – Total effect of changing the calculation formula of the contributory core

(a) Median change in pension at claiming age (in percentage of the initial pension, exclusive of solidarity mechanisms)



(b) Share of winners and losers in each decile of cumulative salaries (exclusive of solidarity mechanisms)

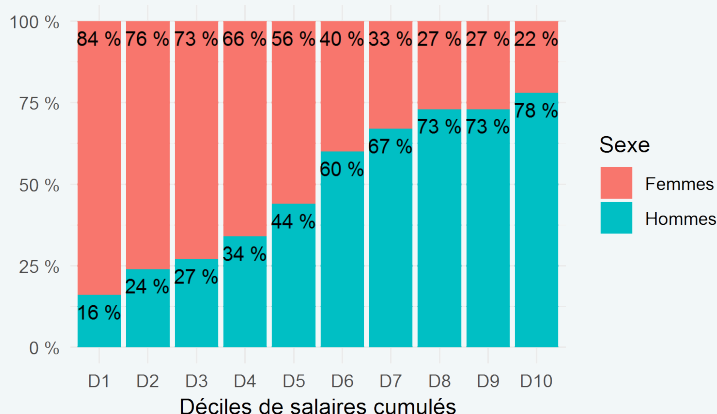


Interpretation : The first graph shows that the median difference in pension calculated using the formula of the current system and the formula of the new system is 60% for the first decile of the sample, in the absence of any solidarity mechanism. The second graph shows that, in the first decile of the distribution of cumulative salaries, 5% of the individuals are losers and 95% are winners. Coverage : Pensioners having only one pension from the general social security scheme, cohort of 1946. Source : EIR 2008 and 2012; EIC 2013 and 2008, Drees; Pensionsip.

Box 2 : Methodology of the simulations

**The data used.** The data that we have used in this policy brief are the data from the Inter-scheme sample of contributors (l'Échantillon interrégime des cotisants, EIC) and from the Inter-scheme sample of retirees (l'Échantillon interrégime des retraités, EIR). These data give firstly all of the contributions from the individuals during their career, and secondly the claiming age and the amount of pension at claiming. We have restricted our analysis to the individuals of the generation (cohort) of 1946 who worked solely in the private sector (people having only one pension). This restriction is guided by the absence of data available on the salary paths for certain work incomes (civil servants, and self-employed workers), making it impossible to conduct a counterfactual calculation of the pensions over the entire career, which is the type of calculation we have done here. The analysis sample comprised 7757 individuals, including 3915 women and 3842 men. For each of those people, we calculated the sum totals of cumulative income earned over their careers, and we classified them into deciles, each salary being revaluated by the Mean Salary Per Capita (MSPC). The cumulative amounts are expressed in 2006 euros. The graphs opposite illustrate the sample in question, by showing firstly the sex distributions by decile of cumulative salaries. Women are overrepresented in the first decile of the distribution and less and less represented as the incomes increase. The last decile is composed of 22% women and 78% men.

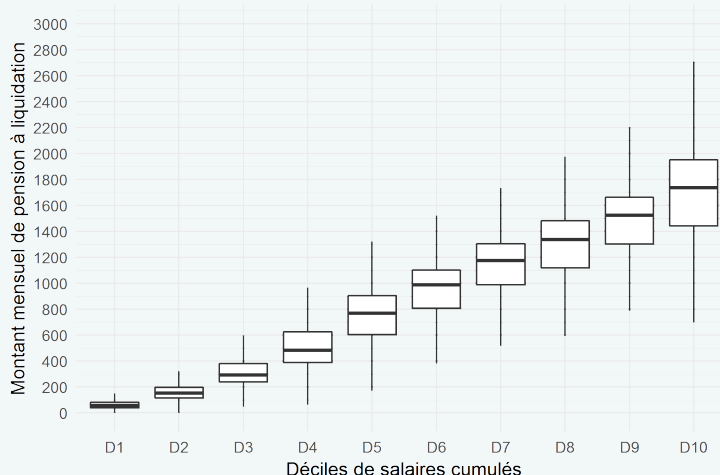
The second graph shows the monthly amount of pension at claiming, as a function of the deciles of cumulative salaries. These amounts represent only the contributory core, and are therefore different from the actual pensions, which include the solidarity mechanism benefits. The contributory pensions clearly reflect the amounts of the cumulative salaries, but it should also be noted that their dispersion increases with the deciles of cumulative salaries.



Interpretation : In the sample in question, women accounted for 84% of the first decile of the distribution of the cumulative salaries.

Coverage : Pensioners having only one pension from the general social security scheme, cohort of 1946.

Source : EIR 2008 and 2012 ; EIC 2013 and 2008, Drees ; Pensipp.



Interpretation : In the sample in question, the median of the monthly pensions of the 5th decile of the distribution of the cumulative salaries is 7 €70 without counting the solidarity mechanisms. The first quartile of the 5th decile receive 6 €04 in pension, and the 3rd quartile receive 9 €06 in pension. Coverage : Pensioners having only one pension from the general social security scheme, cohort of 1946. Coverage : EIR 2008 and 2012 ; EIC 2013 and 2008, Drees ; Pensipp.

**The Pensipp model.** The data gave us the pensions at claiming for the individuals observed. In order to break down the pensions inequalities of the current system and in order to compare them to a defined-yield system, we simulated counterfactual pensions based on the Pensipp model. The pensions of the general social security pension scheme and of the supplementary schemes were simulated. Although the model makes it possible to simulate non-contributory mechanisms, we limited our analysis to the contributory entitlements alone.

For individuals claiming before they reach full pension, a theoretical full-pension age was calculated by extending the career until full pension was reached. We simulated the career up to full pension by repeating the last salary obtained.

For each simulation, we used the total amount of constant pensions. For example, if a base scenario predicted a sum total of pensions in the current system equal to T, then we adjusted the sum total of the pensions calculated using an alternative formula in such a manner that the total was the same and that the comparison was neutral from a budgetary point of view.

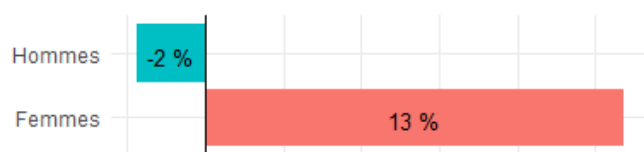
The defined-yield model that was simulated was a points model in which the value of the point was index-linked to mean salary. The conversion coefficient depended on the life expectancy at the claiming age, and on an anticipated revaluation equal to the growth in the wage bill with an advance on pension of 1.5%. As indicated above, the conversion coefficient was multiplied by a constant in order to equalise the total amounts of pension at claiming between the various systems considered.



Going over to a strictly contributory system for calculating pensions would benefit the 40% of individuals on the lowest salaries, and would benefit women to a larger extent than men.

The change in the calculation formula also changes the pension disparities between men and women. Women are more present in the lower deciles of cumulative salaries (cf. figure 1). They have careers that are more intermittent and bumpy, and their salaries grow less than men's. Furthermore, they claim their pension entitlements later than men. Figure 6 shows that the median difference in pension calculated using the formula of the current system and using the formula of the new system is 13% for the women of the cohort of 1946, while the median reduction for the men is 2%.

Figure 6 – Median change in pension at claiming age by sex (in percentage of the initial pension, exclusive of solidarity mechanisms)



Interpretation : The median difference in pension calculated with the formula of the current system and with the formula of the new system is 13% for the women of the sample.

Coverage : Pensioners having only one pension from the general social security scheme, cohort of 1946.

Source : EIR 2008 and 2012; EIC 2013 and 2008, Drees; Pensipp.

## Conclusion

This policy brief confirms the preceding studies that had highlighted the counter-redistributive nature of the contributory core of the current system. Because of the rules whereby the 25 best years count and the salaries entered into the calculation accounts are revaluated in line with inflation, the contributions paid in by the future pensioners on low salaries procure a lower return today than the contributions paid by the employees at the upper end of the distribution.

Going over to a more strict contributory relationship by introducing a defined-yield points system, in which every euro contributed gives the same pension entitlement, would have a strong redistributive effect, significantly benefitting the 40% of employees on the lowest salaries.

The redistributive effect of the change in the calculation formula could differ from the total effects of the reform put in place. Firstly, we have considered here only people

who receive only one pension from the general social security scheme, and whose careers are not necessarily representative of all of the members (contributors) of the future single, universal scheme. But above all the overall effects will also be strongly dependent on the way in which the non-contributory entitlements are transcribed into the new system. For example, some of the winners with the change in formula at the lower end of the distribution are currently beneficiaries of old age pension minima and will thus see their net gains reduced.

Finally, it should be noted that these redistributive effects will appear only progressively, for the youngest generations (cohorts) who will be fully affected by the new system.

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- # 42 « Is a reference age necessary in a points pension system? », A. Bozio, S. Rabaté, A. Rain et M. Tô (2019)
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