

Taking contributions into account in public-private comparisons of pensions

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Comment on “Differences between public and private sector pensions:
an analysis based on career profile simulations”
by P. Aubert and C. Plouhinec

Comparisons between pension schemes are often distorted by the use of simple and misleading indicators, such as mean pensions, or mean replacement rates. Aubert and Plouhinec (this issue), comparing the calculation rules in the public and private sectors for given careers, highlight that replacement rate comparisons are not unequivocal. Such work makes it possible to gain a better understanding of the mechanisms involved, which are more complex than they first seem, and to highlight the heterogeneity of situations in the civil service. However, such comparisons do not make it possible to assess the relative generosity of the pension schemes because they are, to a large extent, contributory. This comment suggests that while comparing contribution efforts is, admittedly, complex, it is not beyond the realms of feasibility. Such a comparison would offer the advantage of being distinct from the related, but separate, issue of comparing total pay (immediate and deferred) between the public and private sectors. Finally, in the light of that work, recommendations for reforms are made, aiming to transform the “pensions” Special Account (*Compte d’Affectation Spéciale (CAS) “pensions”*) into a pension fund for Central-Government civil servants, and gradually to incorporate bonuses into the contribution base on which civil servants’ contributions are calculated.

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The article by Patrick Aubert and Corentin Plouhinec is a welcome piece of work on the issue of the differences in pension entitlements between the public and private sectors. The issue is important not only for implementing good public policies on pensions, but also for policies on civil service pay. It is also a highly sensitive issue in the public debate, which is why rigorous studies giving a clearer vision are more than necessary.

In the minds of the general public, and indeed of many experts, it appears understood that public sector pensions are more generous in France than private sector pensions. This conviction results in strong oppositions between professional categories who mutually accuse each other of being “privileged”. The fault lines are not limited to opposition between private and public. They also divide employees and self-employed, civilian and military public servants,

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civil servants who receive large bonuses and teachers who have few bonuses, those who are entitled to special pension schemes and those who are not, etc. These feelings that the pensions system is unfair reduce trust in it, and lead to many calls for convergence of the public and private pension schemes¹.

This comment firstly revisits why commonly cited indicators are misleading, and then analyses the results proposed by the authors. Those findings are deemed to be robust and do not really deserve criticism, since the authors are well aware of the limitations of the exercise. Where this comment diverges from the conclusions of the article is on whether or not it is relevant to think that comparing pension schemes on the basis of contribution efforts would be more appropriate. Finally, by way of a conclusion, we discuss the possible reforms that would make it possible to achieve greater fairness and transparency in the pension entitlements of the various mandatory schemes.

Simple but misleading indicators

The idea that pensions are more generous in the public sector than in the private sector is generally based on indicators that are simple, but very often misleading.

The mean public/private pension gap

The first indicator, often cited in the press, is the mean public/private pension gap. As Aubert and Plouhinec remind us, in 2013, retired Central Government civil servants received nearly 2,520 euros a month in pension while retired private-sector employees received, on average, a monthly pension of 1,770 euros (Drees, 2016). Naturally, that measurement does not reflect the difference in generosity of the pensions systems, but rather, quite simply, that, in a contributory system, pensions are proportional to the salaries and wages on which the contributions are based. The comparison could possibly have meant something in a world in which the public sector and the private sector were entirely comparable. In reality, public service production (health, education, etc.) requires staff who, on average, are more qualified than in the private sector, and civil servants therefore, on average, have higher pay than private-sector employees. This does not mean that, for the same levels of

qualification and of responsibility, civil servants are better or less well paid than private-sector employees, and even less so that their pensions are more or less generous.

The calculation rules

A second item that is difficult to dispute is the fact that the rules for calculating the pensions are different. Without recapitulating all of the differences, the two main ones are the salary of reference and whether or not bonuses are taken into account. In the civil service, the salary of reference is the pay received for the last six months before retirement, whereas, in the private sector, the general basic pension scheme uses the salaries for the 25 best years, and the compulsory supplementary pension schemes use all of the contributions throughout the career. For a full and upward career, it is intuitive that a calculation based on the last salary will be more advantageous than a calculation based on the whole career. But here too, this reasoning does not take into account how the whole system fits together: for a given contribution rate, a calculation based on the last salary or on all of the salaries is not necessarily more or less advantageous. It is favourable to certain career paths (upward ones) and unfavourable to other, less dynamic career paths (with a complex mechanism of ceilings being applied). The fact that bonuses are taken into account only very partially in calculating civil service pensions is another argument, this time used in defense of civil servants: on average, bonuses account for 23% of civil servants' pay, civilian pensions mechanically represent a lower rate of replacement of the total pay than for private-sector workers (for whom bonuses are fully included in the contribution base and in the salary of reference). However, the argument remains limited in terms of unfairness: when contribution efforts are different (higher on basic pay, lower on bonuses, lower on self-employment income, etc.), is that synonymous with unfairness? Not really.

The mean replacement rates

The gap in replacement rates – that is, in the ratio of pension to last pay before retirement – has often been used to measure the relative

1. For instance, we could cite the OECD (2016, chap. 6).

generosity of pension schemes². The work done by Drees (*Direction de la recherche, des études, de l'évaluation et des statistiques* – the Directorate for research, evaluation, and statistics of the French Ministry of Social Affairs and Health) based on the inter-scheme sample of retirees thus highlights that the replacement rates in the public sector are similar to (or indeed slightly lower than) the replacement rates in the private sector. Senghor (2015, Table 2, p. 5) thus finds a median replacement rate of 72.1% for former public-sector employees as against 73.8% for former private-sector employees. This indicator is more pertinent than comparing mean pensions, but it is not an indicator of pension generosity: firstly, when replacement rates are equal, it can easily be understood that an insured person who can retire earlier enjoys a pension that is more generous. Secondly the mean (or median) replacement rate, like mean pensions, is dependent on the structure of the studied population: a structure of contribution rates decreasing with income combined with non-contributory items intended for small pensions results in replacement rates decreasing with the pay level.

The study by Aubert and Plouhinec (2017)

The analysis conducted in the article by Patrick Aubert and Corentin Plouhinec consists in comparing the part played by pension calculation rules in the public sector and in the private sector by applying them to three standard career paths in the civil service (a “category B” grade employee with an end-of-career bonus rate of 20%, a teacher with a low bonus rate, and a “category A+” grade executive with an end-of-career bonus rate of 35%). The replacement rates are compared, but at given wage paths, making it possible to show the impact of differences in rule while controlling for composition effects between sectors.

Results illustrating the complexity of comparing pension calculation rules

The authors highlight that such comparisons are not unequivocal: the public sector rules clearly advantage the standard case of teachers (replacement rate of 77% as against 69%), marginally advantage the A+ executive with bonuses (54% as against 51-52%), and disadvantage the standard case of the category B

employee with a bonus rate of 20% (69% as against 75-76%).

Those calculations are good illustrations of the interactions between different rules that make comparison particularly difficult: thus, although it can be intuitively understood that the bonus rate tends to depress the replacement rate with the public-sector rules, the role of the social security ceiling and the interaction of entitlements to the general basic scheme and in supplementary schemes explain why the A+ executive with a very high bonus rate obtains a similar replacement rate, whether the public-sector rules or the private-sector rules are applied.

Another interesting point is that the gains made by postponing retirement are greater with the civil-service calculation rules: the authors found that postponing retirement from 62 to 67 yielded a gain of from 26 to 28% with the public-sector rules, as against only 17 to 21% with the private-sector rules. This finding emphasises that, in spite of the rules being aligned in appearance (extra pension for retiring late, reduced pension for retiring early, and required length of the contribution period), differences in career path and in the definition of the salary of reference play major parts in explaining incentives for postponing retirement.

What conclusions can be drawn from the article?

Although the authors do indeed show that we cannot unequivocally conclude that the pensions calculation rules for the public sector are more generous, can we nevertheless conclude that they are more generous for certain sub-populations such as teachers? Should we conclude from this work that it would be legitimate to reduce the pensions of public-sector teachers and, to a certain extent, the pensions of A+ executives, and to increase those of category B employees? Or, conversely, should the bonus rate of teachers be increased (thereby lowering their replacement rate) or should the bonus rate of the other civil servant categories be lowered?

2. See Andrieux and Chantel (2012), Conseil d'orientation des retraites (Pensions Advisory Council) (2014), and, more recently, Senghor (2015).

These questions show that comparing replacement rates, even on standard careers, only gives little information about the compared generosity of pension calculation rules. Indeed, the authors do not claim anything different, reminding readers that their aims were, above all, to “shed light on the mechanisms involved”.

Is it possible to compare the generosity of pension schemes?

The authors are aware of the above-mentioned limitations, but they deem that the option of comparing contribution efforts between schemes is not very pertinent. Well, I do not share that pessimism. Although I am aware of the difficulties involved in such an exercise, I think it is possible to achieve a pertinent comparison of pension schemes, provided that, conceptually, we clearly separate the issue of the relative “generosity” of the pension schemes from the comparison of total pay (net and deferred income) between sectors at equivalent levels of qualification, arduousness, and responsibility.

What is the “generosity” of a pension scheme?

The generosity of a pension scheme is often understood in ordinary language as being the amount of the pension or the total amount of spending on the pension. There is not much sense in using such a perspective for comparing two contributory pension schemes: for equivalent career paths, if some people choose a higher contribution rate and lower net salaries, that does not mean that their scheme is more “generous” but rather, simply, that their contribution efforts are higher. In a contributory pension system, the best indicator of the relative generosity of one scheme compared to another is the return on contributions (or, in more technical terms, the “internal rate of return”): to what extent one euro contributed to the civil service pension scheme yields more or less pension entitlements than in private-sector schemes. In such a context, if one scheme leads to higher replacement rates or to earlier retirement due to a higher contribution effort, and therefore due to lower net salaries, we should not find anything to complain about. The only thing that should count is the ratio between the benefits received and the contributions paid.

Does comparing contribution efforts really lack pertinence?

The authors rightly emphasise (cf. on-line supplement C2) that it is difficult to measure the real contribution effort of Central Government civil servants: the employer contribution rates given by the “pensions” Special Account (“pensions” CAS) are calculated as the subsidy for balancing the CAS relative to the contribution base (the salary). It is not an actual contribution rate, reflecting the contribution efforts of the civil servants, mainly but not only because the expenditure covered includes a large share of non-contributory expenditure which, in the private-sector schemes, is covered by taxation.

These very real difficulties are not insurmountable: there is indeed an actual contribution rate that could be calculated by subtracting the non-contributory entitlements from the “pensions” CAS expenditure, and that should be differentiated among civilian public servants between active and sedentary categories. Such a rate could be compared with the retirement pensions received, and compared with the return measured in the private-sector schemes³. Differences would definitely be possible, but personally I doubt whether they would be as significant as the gap in replacement rates mentioned earlier. However, what might happen is that we find contribution rates on gross civil service salaries to be higher than on gross salaries in the private sector, and contribution rates that are lower on the bonuses. If such an observation were found to be true, that would take us from the issue of the generosity of the pension scheme to comparison of overall pay.

What is the economic incidence of pension contributions?

Before we discuss the ways of comparing the overall pay between sectors, it is necessary to go back over the issue of contributory effort from an economic point of view, and not only because of the problems of measuring the employer contribution rate in the Central Government civil service. Both in the private sector, and in the

3. The other option is to calculate, for a representative sample, the present values of the pensions, for the public and private sectors, and then to compare net salaries and pension entitlements while checking for the characteristics of each sector (Colin et al. 1999, Disney et al. 2009).

public sector, we need to address the issue of the economic incidence of pension contributions: who ultimately pays the contributions? The employee or the employer? The issue of the economic incidence of social contributions is one of the major issues of public economics, for anyone wanting to study the impact and the effectiveness of social insurance systems. Economic analysis generally leads to the idea that the social contributions that fund contributory entitlements are fully borne by the employees in the form of lower net salaries. In the standard framework of labour market analysis (labour supply versus labour demand), although employees do incorporate the expected pension entitlements in their total pay, their labour supply is not affected by a rise in pension contributions, and such a rise results in a reduction in net salary (Summers, 1989; Kotlikoff & Summer, 2002). Empirical analyses remain scarce, but the most convincing evidence of social contributions having an incidence on employees comes from cases where the contributory relationship is visible and obvious (Gruber, 1997). Recent work on French data reinforces this observation (Bozio, Breda & Grenet, 2017). However, do pension contributions in the public sector have an economic incidence similar to what has been shown for the private sector? Nothing makes it possible to think so, since pay processes in the civil service follow quite distinct mechanisms. This is where comparing overall pay (or labour cost, that is the addition of net salary, employee and employer social contributions), between public-sector and private-sector employees, could be relevant: to what extent are gaps in total pay, at given qualification and job characteristics, detectable?

Comparing total pay, both immediate and deferred?

This subject is addressed in a considerable amount of literature on pay in the public and private sectors, in France and elsewhere⁴. This comment does not aim to review that literature but merely to point out that comparing total pay might correspond better to addressing the question asked by certain commentators about the compared generosity of pension schemes. Fundamentally, the exercise is difficult because beyond checking for qualifications, experience, and job location, it is difficult for economists to check for the degree of disutility of the

respective jobs. Generally, the most convincing work uses occupations held by people in both the public and the private sectors (e.g. nurses, teachers), and uses panel data to estimate the total pay in each of the sectors, and the impact on mobility that pay gaps can have.

What reforms could reduce inequalities and the feeling of unfairness?

The preceding discussion should not conceal the fact that, in order to avoid unjustified inter-category conflict, it is possible to improve the transparency and legibility of the French pension system. Here, I am largely using ideas put forward in Newsletter No. 12 from the Pensions Advisory Council (COR 2015).

Transform the “pensions” CAS into a Central-Government civil servants’ pension fund

The first essential thing to do is to leave behind the budgetary logic of the “pensions” CAS, which leads to the of employer contribution rates that do not have any real economic sense. This reinforces the feeling that Central-Government civil servants enjoy a privileged or preferential pension scheme, and fuels speculations as to the extreme generosity of the system, speculations that Aubert and Plouhinec show to be ill-founded. Within such a pension fund, it would be necessary to distinguish between the common basis for all Central-Government civil servants (common contribution rate), and specific additional contribution rates for military personnel and active civil servants. Non-contributory entitlements should not be included in the financing of such a fund, but rather they should be funded through tax, as in the private sector – this is purely a bookkeeping change, since the employer contribution rate is naturally ultimately funded by tax. The advantage of such a reform would greatly clarify the Central-Government public service pension system, and, in addition to the resulting transparency gain, it would lead to facilitating mobility between the various components of the civil service.

⁴ See, for example, Postel-Vinay and Turon (2007) for an example, or Gregory and Borland (1999) for a review of the literature.

Include bonuses in the contributory basis

The current situation, in which the State (Central Government) organises in its own way the payment of bonuses not liable for contributions, is absurd and a source of multiple malfunctions, both for pensions but also for pay policy in the civil service. The inclusion of bonuses in the contributory basis can be done in various ways – probably progressively – that do not all have the same consequences for the civil servants in question and for public finances. Firstly, it is possible to increase the “employee” contributions on bonuses, thereby lowering the net bonuses paid, but proportionally increasing the pension entitlements on those bonuses. This operation would be neutral for public finances, and for the civil

servants, but not necessarily desired by the latter. Alternatively, it is possible to increase the contribution rate on bonuses (employer and employee contributions) until parity is obtained with the contribution rate on basic salary. Such a choice would lead to an extra cost for public finances and to a gain in terms of pension entitlements for civil servants who receive significantly large proportions of their pay in the form of bonuses, thereby accentuating the total pay gap with civil servants who receive small percentages of their pay in the form of bonuses, that is, teachers.

Regardless of the option chosen, it would be necessary, on that occasion, to review the differences in pay structures between the different categories of civil servants. □

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