

World Bank Staff Note

Summary Note on Pension Reform in Brazil: Why is it Needed and What Will be its Impact?*

April 13, 2017

Abstract

This short note analyzes the fiscal and distributive impacts of the proposed pension reform currently under discussion in Brazil. It argues that the projected aging of Brazil's population makes pension reform a necessity to regain the financial sustainability... See More + This short note analyzes the fiscal and distributive impacts of the proposed pension reform currently under discussion in Brazil. It argues that the projected aging of Brazil's population makes pension reform a necessity to regain the financial sustainability of the public pension system. Further, it analyses the distributional impact of the proposed reform showing that the biggest gains of the current system go to the top three quintiles of the population. Consequently, a reform of the pension system, by reducing the subsidies received by these groups, aside from contributing to its future sustainability would make the public pension system less regressive.

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Pension Reform in Brazil: why is it needed and what will be its impact?

Brazil is debating the most far reaching reform of its public pension system in decades. This short note offers a contribution to the debate with a particular focus on the distribution of the reform’s costs and benefits across different income groups. The basic message is that the reform is necessary both in scope and timing, and socially balanced in its basic impact. The biggest winners of the present system are in the top three income quintiles and these groups would make the biggest contribution to reducing future pension deficits.

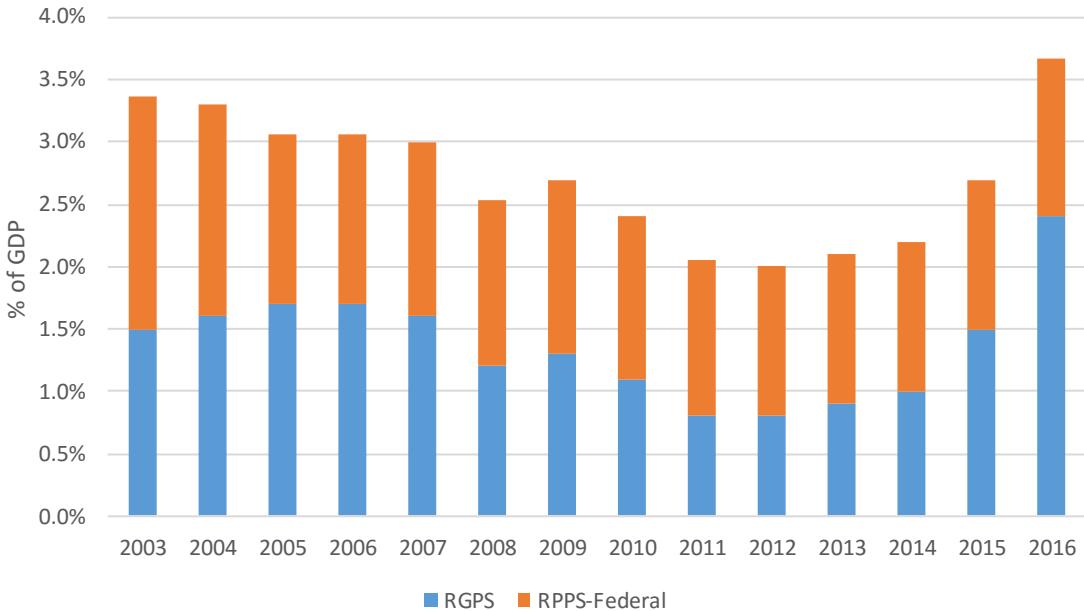
The note answers three basic questions:

- Why is pension reform in Brazil needed?
- What needs to be reformed?
- How will this impact the financial sustainability of the pension system and the welfare of both contributors and beneficiaries?

Why is pension reform in Brazil needed?

Pension reform in Brazil is needed because, without it, the public pension system is not financially sustainable. The combined deficit of Brazil’s RGPS (private sector) and RPPS (Federal civil servants, including the military) pension systems amounted to approximately 3.7 percent of GDP in 2016 (Chart 1). This is projected to get worse as Brazil’s population ages and the ratio of contributors to beneficiaries in the public pension system declines.

Chart 1. Consolidated Pension Deficit of the RGPS and RPPS- Federal Level (in percent of GDP)



Source: Ministério da Fazenda – Secretaria da Previdência Social (2017) and Instituto Fiscal Independente (2017).

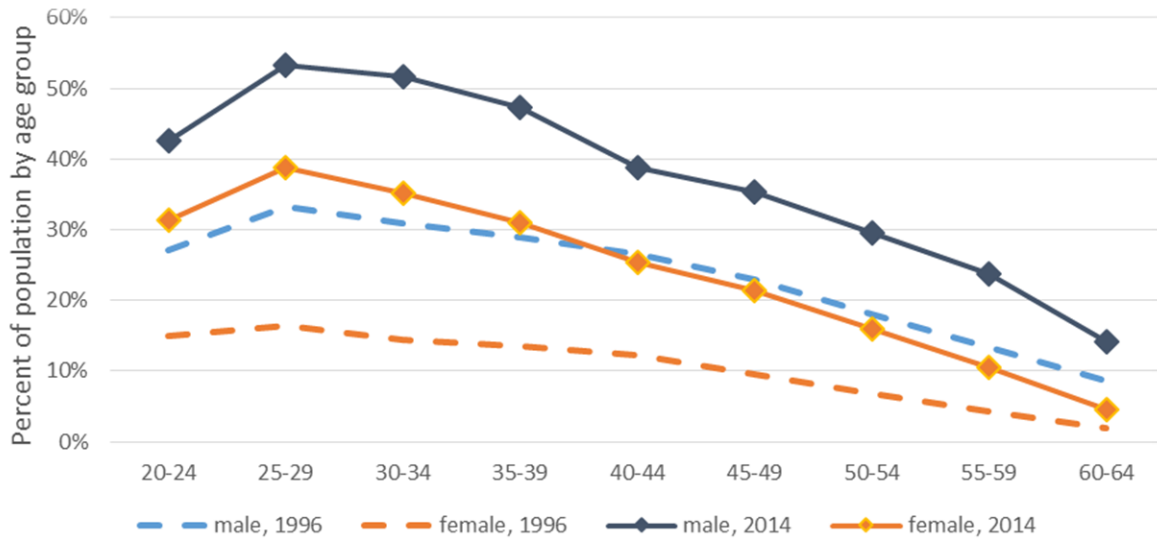
There has been significant debate about the current financial position of Brazil's public pension system[†]. The basic data and trends can be summarized as follows:

- In the RGPS, we can distinguish between the urban and the rural system, where the urban system is contributory, whereas the rural system is only partially contributory. The rural system has recorded deficits throughout the past decade averaging around 1.5 percent of GDP (with a moderately declining trend).
- The urban system has recorded deficits during times of weak employment and surpluses during times of buoyant employment, particularly between 2005 and 2014. In 2016, as unemployment increased and labor force participation declined, the urban RGPS recorded a deficit of 0.7 percent of GDP and the combined RGPS deficit reached 2.4 percent of GDP. It is important, however, to note that the balance of the urban RGPS is not just a cyclical phenomenon. Instead, the improvement in urban RGPS balances since around 2005 also reflected a dramatic decline in informality and hence an increase in RGPS contributors in the labor force (Chart 2). As analyzed in the World Bank's Strategic Country Diagnostic[‡] it is unlikely that future growth will follow the same pattern of rapid formal employment creation, rising low skilled wages, and a general increase in labor's share in total value added.
- The RPPS-federal has recorded deficits throughout the past decade, hovering around 1.3 percent of GDP since 2005, of which around one third is due to military pensions and the rest to other civil servants. This calculation does not include civil servants' pensions at the state and municipal level. We estimate these at around 0.9 percent of GDP in 2015, bringing the overall RPPS deficit to approximately 2.2 percent of GDP.

[†] For a recent assessment and summary of the debate see: Relatório de Acompanhamento Fiscal, Marco 2017, accessed on April 5 at: http://www12.senado.leg.br/ifi/copy2_of_RAF2_Final_20170303_Previdncia_2.pdf

[‡] *Retaking the Path to Inclusion, Growth and Sustainability in Brazil*. World Bank Systematic Country Diagnostic, 2016. Can be found at: http://wbescs02.worldbank.org:9280/ACS/servlet/ACS?command=read&version=2.3&docbaseid=0224b0&objectid=090224b0843f3dee&cacheid=dlwEAgA%3D%3D%2FE0JgA%3D%3D&format=pdf&pagenum=0&signature=DLK5lrR2pofUsKv9NNvbXhiOe%2Fmf8iYqJ9BoGPTQIN48ccU9EEvkMxpiWY3R%2Fi%2B8QXpGm4us6puyZ8FyKusjGeAexPOUvTddXF22mXFY38oiCkDnQTYgTkovHGg4ZeEMnpjgQGD42cC%2Fo3K0Co%2F4Qyf%2BZhJFFgUOT8%2FCpekNv4%3D&servername=Awbescs02_wbecmosp&mode=3×tamp=1491576962&length=5998107&mime_type=application%2Fpdf¶llel_streaming=true&encryption_mode=require&expire_delta=360

Chart 2. Share of the Population that Contributes to the RGPS Pension System, 1996 and 2014
(in percent by age group)



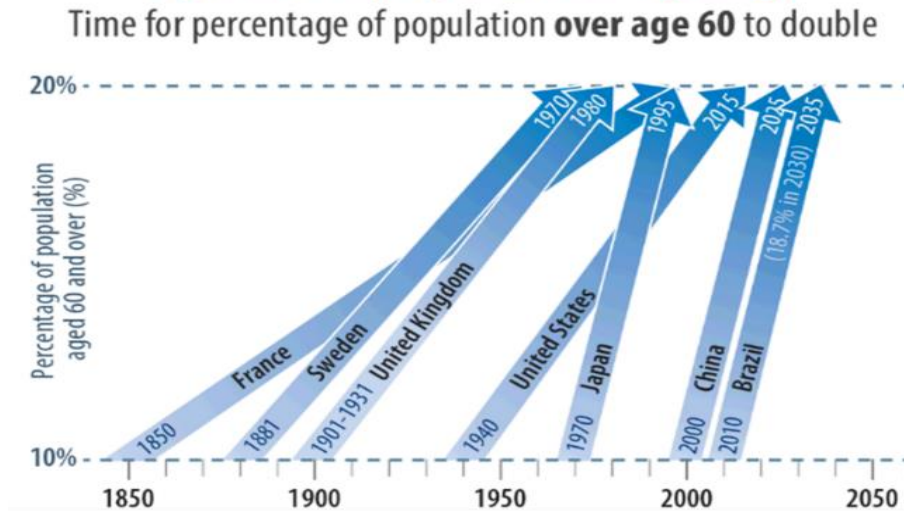
Source: Ministério da Fazenda – Secretaria da Previdência Social (2015).

Not all analysts agree that the pension system is financially unsustainable. The National Association of Federal Fiscal Auditors (ANFIP), for instance, has presented alternative calculations of the financial balances of the pension system.⁵ These alternative results exclude the RPPS deficit, and include non-realized revenues due to payroll tax exemptions and mandatory labor contributions to investment funds managed by BNDES through the FAT. We do not think the exclusion of the RPPS deficit is justified as any deficit ultimately needs to be financed, and as the proposed reform includes the elimination of most RPPS special regimes thus contributing substantially to anticipated savings. There is scope for increasing pension system revenues through the elimination of tax exemptions (indeed we believe there is scope for reducing tax exemptions more broadly) and reduced informality. However, even with more benign assumptions regarding pension system revenues, pension deficits are expected to increase substantially in the future without reform. The main reason for this is the rapid ageing of Brazil's population.

In Brazil's Pay As You Go (PAYG) pension system, the contributions of the current generation of workers finances the pension benefits of the current generation of retirees. When there are a lot of workers relative to pensioners, pensions can be quite generous without the system generating large deficits. However, when the population starts to age, the same level of contributions and benefits per worker and pensioner can generate large aggregate deficits. As Chart 3 demonstrates, Brazil will age much more rapidly than some of the industrialized countries and consequently has far less time to adjust the pension system to demographic change.

⁵ See: http://www.anfip.org.br/doc/publicacoes/Documentos_01_02_2017_08_39_19.pdf.

Chart 3: The Speed of Population Aging Across Countries

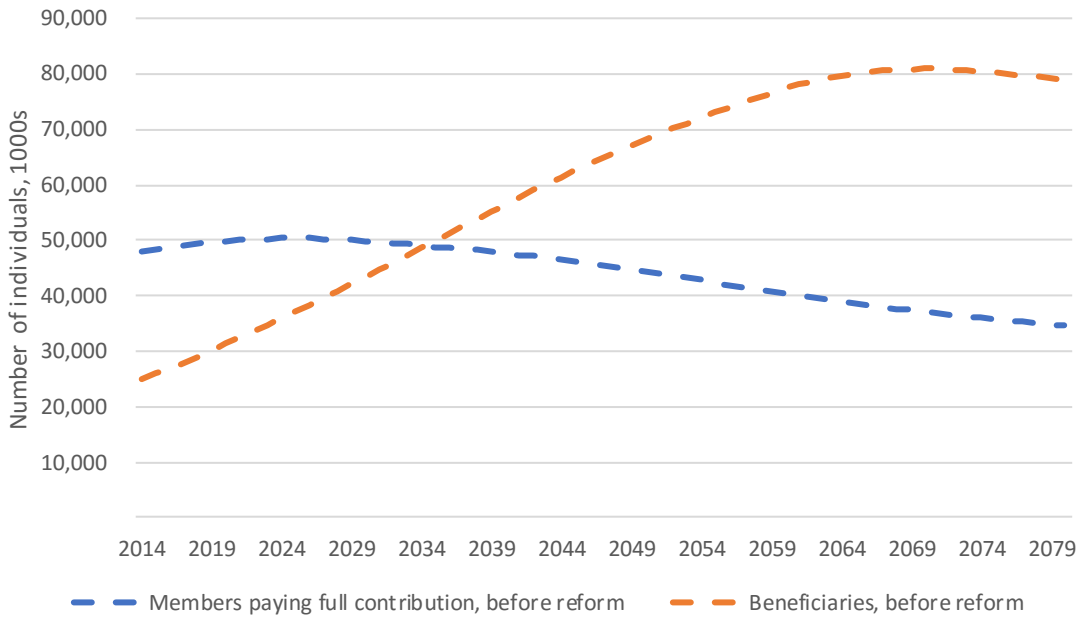


Source: WHO (2015).

With the projected future aging of Brazil’s population, the prospects for pension system sustainability are bound to worsen (Chart 4). Today there are still more than two contributors per beneficiary; in less than 20 years the number of contributors will be the same as the number of beneficiaries. We estimate that without reform, the RGPS deficit will reach 16 percent of GDP by 2066 (Chart 9 further below). If Brazil wants to avoid a rapid increase in the RGPS deficit without changing the value of pension benefits, it would have to double the contribution rate of workers by 2035 to around 60 percent of gross wages. By 2065, the contribution rate would have to double again to 120 percent, as there will be two beneficiaries per contributor. This situation may be conducive to a break in the social contract.**

**The Netherlands provides an interesting case, where the unwillingness of the young to continue to pay for pension benefits of the old has provoked a debate on radical pension reform. For the generation of current contributors, the risk of future deficits is that they may be confronted with sudden and unexpected changes in pension benefits if the social contract underlying the PAYG system breaks down.

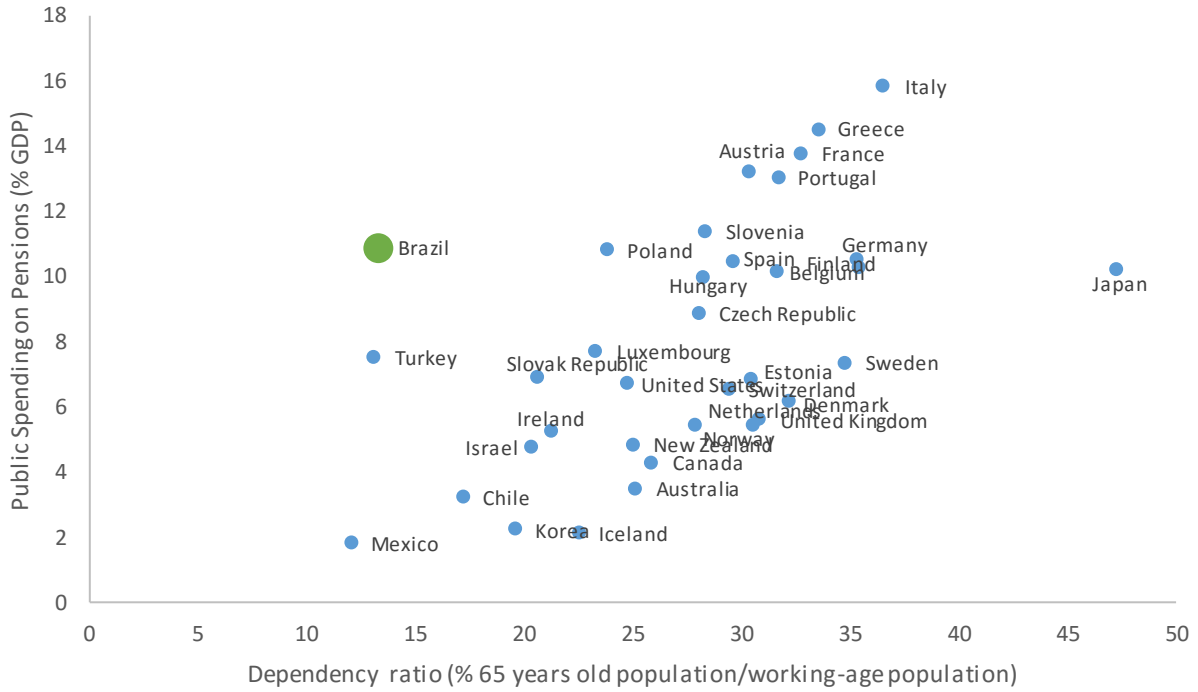
Chart 4. Projected RGPS beneficiaries and contributors who pay full contribution
(Number of individuals in thousands)



Source: World Bank estimates, based on official projections.

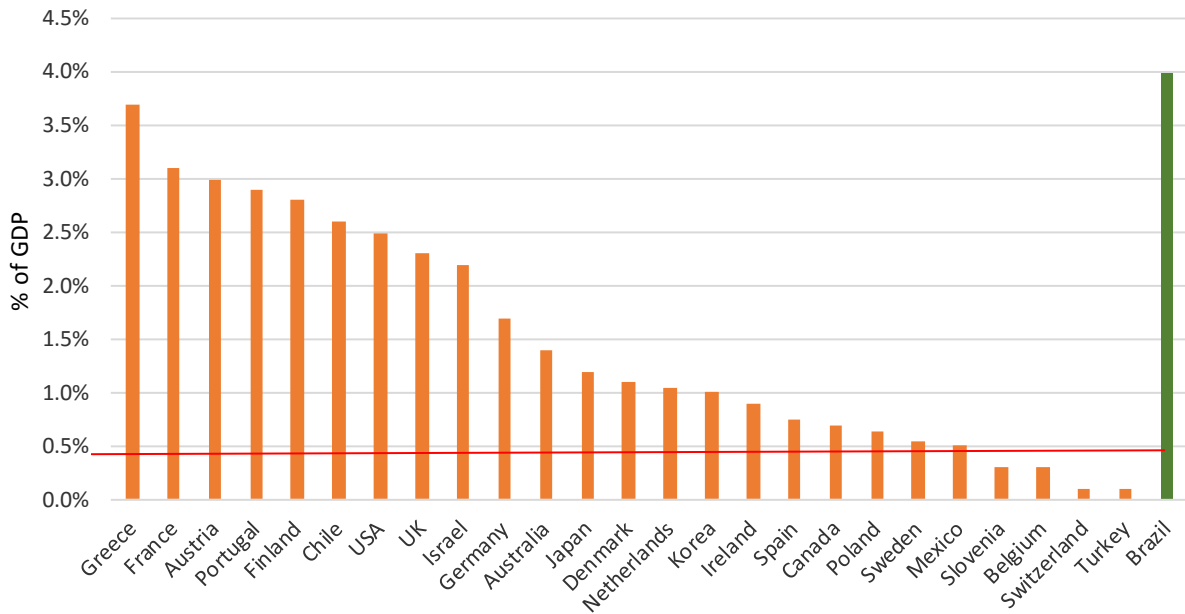
Pension reform is thus necessary. It is also urgent, for two reasons. First, the weight of the pension system in public spending means it has a particularly important role to contribute to the ongoing fiscal adjustment effort. Pension spending amounts to around one third of total government spending, with disproportionately large portion attributable to the RPPS, which alone accounts for 4 percent of GDP, and covers only 1.5 percent of the population. Total spending on public pensions in Brazil is far higher than in many OECD countries with much larger retiree populations (Chart 5, Chart 6). We project the proposed reform would reduce pension spending by around 2.2 percent of GDP over the next 10 years, around one third of the fiscal adjustment effort required to meet the recently agreed spending rule. Without reform, to keep the spending rule, other items of the budget would have to be commensurately cut.

Chart 5: Total Pension Spending (RPPS and RGPS) as a Share of GDP and Dependency Ratio



Source: IBGE (2013), OECD (2015), and World Bank own estimates.

Chart 6. Civil Service Pension Spending in EU Countries and Brazil



Source: Whitehouse (2016), World Bank estimates for Brazil based on state and federal sources.

Second, a delay in or significant softening of the proposed pension reform could be costly. The history of RPPS demonstrates the difficulty of reducing pension deficits if reform is delayed or introduced too timidly. The 1998 and 2003 reforms reduced implicit pension liabilities, but the transition rules were so generous that there is a large cohort still in active service that will continue to benefit from pre-2003 benefits. The resulting increase in pension spending as this cohort retires is expected to dramatically increase the fiscal deficits of many subnational governments. We return to this point in the conclusion.

What aspects of the pension system should be reformed?

Brazil's pension system stands out in international comparison in three ways.

First, Brazilians retire relatively early. The average effective retirement ages for men and women in the RGPS are 60.3 and 58.6 respectively. In the RPPS they are even lower because of special regimes. In the OECD these effective retirement ages stand at around 64.3 for men and 63.2 for women in average. Brazil's effective retirement ages are low because contributors to the RGPS can retire before they reach the statutory age (65 for men and 60 for women) based on length of service. And when they do, they retire at a full pension. Brazil is among only a handful of countries that offer this possibility.^{††}

Many observers have argued that the low effective retirement age needs to be seen in the context of Brazil's life expectancy, which in some regions of the country remains below 65 years. However, what matters for pension system finances is not the life expectancy of a person at birth, which is highly influenced by infant mortality statistics, but the life expectancy of a person at the time of retirement. For example, the average life expectancy of a woman at the age 60 in Brazil in 2014 stood at 23.64 years, which implies that after 30 years of required contribution, the pension system pays benefits on average for another 23.6 years. No pension system that collects 28-31 percent of wages as contribution for 30 years can offer an adequate pension for another 23 years! Even for men, for whom the life expectancy at the age 65 in 2014 stood at 16.58, given the high level of benefits, the expected retirement period is long relative to the number of years of contributions. Moreover, life expectancy at retirement differs less regionally than life expectancy at birth. Higher life expectancy for women is one reason why most countries in the world have unified mandatory retirement ages for both genders. To compensate women (or men in some cases) for the additional burden of child rearing, many OECD countries have introduced parental leave rules that count parental leave against statutory contribution times.

Second, Brazil's aggregate replacement rate – i.e. the ratio of the average pension of recent urban retirees to average wages for the cohort of workers close to retirement is high, at close to 70 percent (Chart 7). In the EU, this ratio is below 60 percent.^{††} As people age, their spending levels go down as they no longer need to make social security contributions, or support their children. Assuming the state covers a share of health expenditures – which tend to go up with age – a retired person should be able to sustain their standard of living with 50 to 70 percent of the final income.^{§§} It is also important to mention that the

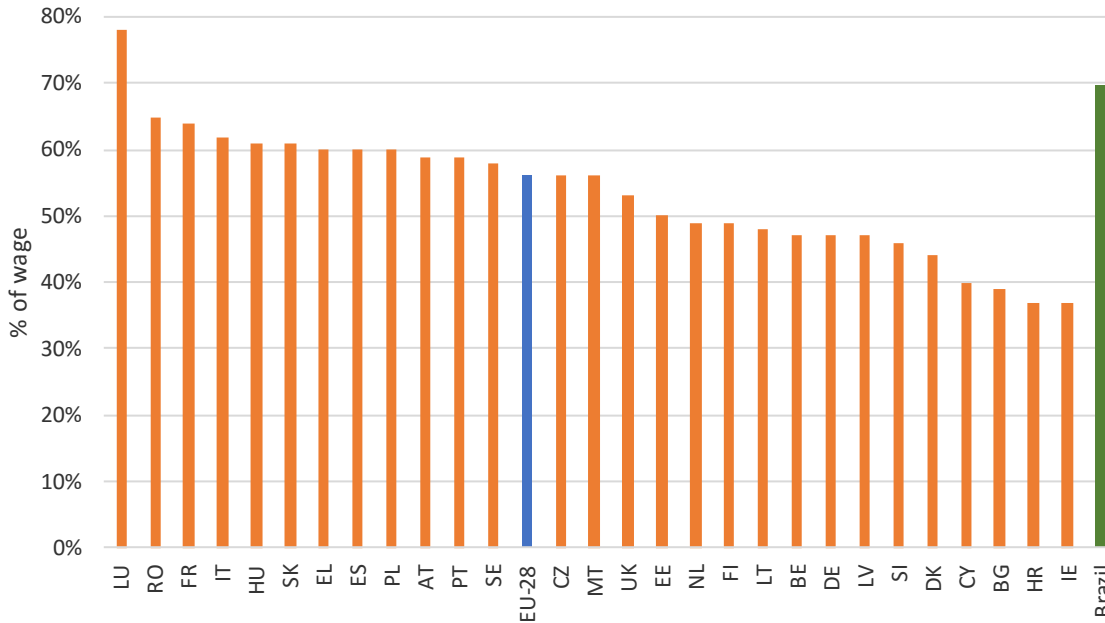
^{††} In Latin America, the only other country offering length of service pensions is Ecuador, in Europe Italy and in Asia India and Sri Lanka. In addition, 6 countries in the Middle East and North Africa offer length of service pensions.

^{††} For EU countries, the Aggregate Replacement Ratio is calculated as the ratio of the median individual gross pension of people aged 65-74 to the median individual gross earnings of people aged 50-59.

^{§§} The International Labor Organization suggests a minimum replacement rate of 40 of the previous earnings after 30 years of contribution.

replacement rates in some European countries include retirement income gained from complementary and mandatory, funded schemes.

Chart 7. Aggregate Replacement Rates: Europe and Brazil, 2013



Source: European Commission (2015), and World Bank estimates.

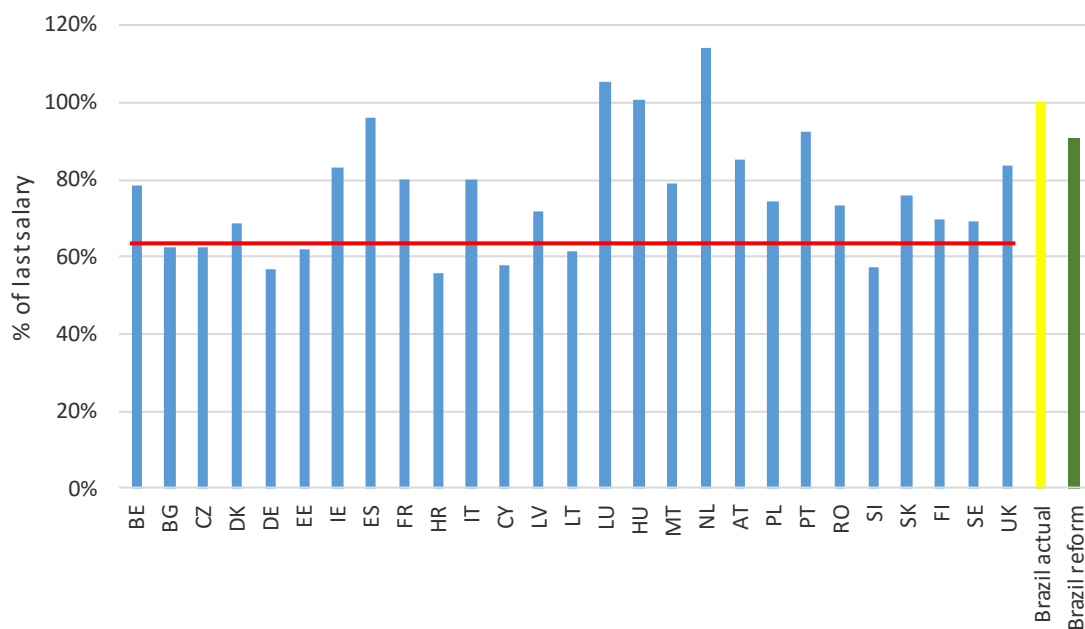
Third, a large number of civil servants in the teaching profession, the police and in the military benefit from special pension regimes, which allow early retirement. These regimes impose significant fiscal burdens on governments and ultimately on other contributors. The pension system also allows beneficiaries to cumulate benefits – e.g. a survivor pension and a pension by years of contribution. Finally, Brazil has fixed its minimum pension at the level of the minimum wage, and increased the latter to around 70 percent of the median and 40 percent of average earnings, which is very high in international comparison (the OECD suggests 45 percent of the median as an adequate level for the minimum wage, which is a little below the OECD average of 48 percent). The non-contributory part of the pension system in Brazil is thus relatively generous.

All these aspects contribute to making Brazil’s pension system expensive in relation to the demographic structure of Brazil’s population. It follows that any reform aiming to reduce future pension deficits will need to consider a combination of (i) increasing the average retirement age and thus lengthening the effective contribution period; (ii) reducing replacement rates; and (iii) abolishing special pension regimes and creating a unified pension system for all workers in the public and private sector.

How will the proposed reform impact financial sustainability and affect contributors and beneficiaries?

The government proposal^{***} introduces a mandatory retirement age of 65 years for both men and women. It abolishes the right to a pension by years of contribution and introduces instead a minimum of 25 years of contribution to receive a pension. Contributors with less than the minimum of 25 years will receive a social pension, currently equivalent to the minimum wage. Contributors with more than 25 years of service will receive 51 percent of the average salary plus 1 percent per year of service. For a worker with 40 years of uninterrupted service between 25 and 65, the resulting replacement rate is 91 percent, for a worker with the minimum 25 years, it is still 76 percent – above many OECD countries (Chart 8). The proposal introduces unified rules for RGPS and RPPS contributors, except for the military which is expected to be covered by a separate reform. The new rules will apply to all men below age 50 and women below age 45, with transition rules for those above this threshold.

Chart 8. Theoretical Replacement Rates
(% of last salary)



Note: Theoretical Replacement Rates are case study-based calculations of the level of pension income in the first year after retirement, measured as a percentage of individual earnings at the moment of retirement. In the case of Brazil, it is measured as a percentage of the benefit to the final salary.

Source: European Union (2015).

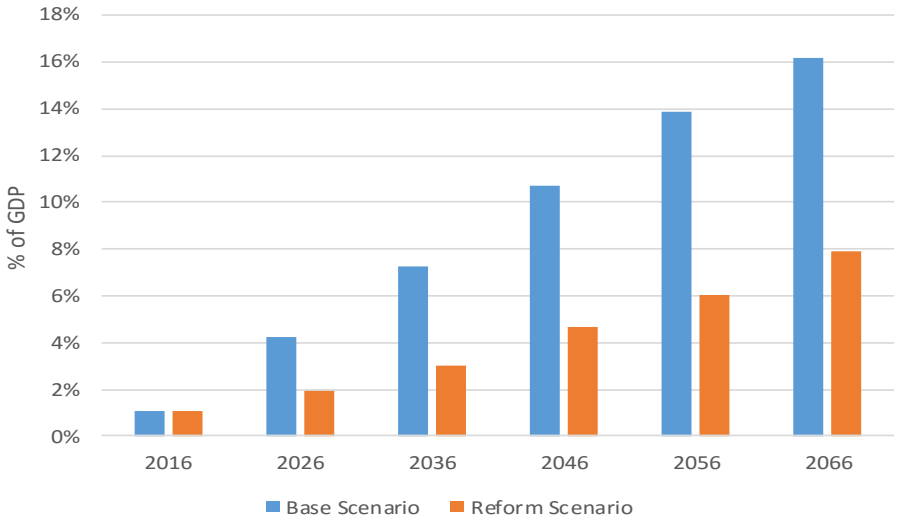
The impact of the reform is to increase the number of contributors relative to beneficiaries at each point in time. This, together with the reduction in aggregate replacement rates, implies a significant reduction in future RGPS pension deficits. We have used demographic projections together with World Bank forecasts of GDP, employment and wages to simulate the impact of the proposed reform.⁺⁺⁺ In 10 years,

^{***} We refer here to the original Government proposal submitted to Congress in December 2016. Numerous amendments have been suggested during Congressional debate and some alterations of the proposal are to be expected.

⁺⁺⁺ The projections were done using the World Bank’s PROST model. This can be calibrated using different assumptions. Calculations presented here follow World Bank staff forecasts: GDP growth is 2 percent up to 2030 and gradually slows to 1.3 percent thereafter, while labor productivity growth increases gradually from 1.5 percent to 2

the reduction in pension deficits is estimated at 2.2 percent of GDP relative to the no-reform scenario, over the next 50 years this rises to 8 percent of GDP (Chart 9). The elimination of the remaining deficit may require additional changes to the pension system in the future. It would be aided by higher real wage growth, as RGPS pensions are indexed to inflation. Since the expected deficits are large even with the proposed reform, we would argue against weakening the proposed reform. We would also argue against delaying key elements of the reform, because this would simply require even greater adjustment in the future. More benign macroeconomic projections would reduce the deficit, but hardly lessen the need for reform under any realistic assumptions.

Chart 9. Estimated RGPS Pension Deficits, 2016-2066
(% of GDP)



Source: World Bank estimates.

Aside from the fiscal implications of the reform, it is important to look at how its costs are shared among different groups. To do so, it is helpful to broaden the perspective to include also other social transfers, such as the social pension (BPC) which is paid to all elderly below a certain income threshold. First, we can look at who benefits from the current pension system, relative to who benefits from other social transfers, such as *BPC* and *Bolsa Familia*. Because the pension system includes both contributions and benefits, we net these out and just look at *pension subsidies* received by each group.^{***} Around half of all pension subsidies accrue to the top two income quintiles. Only 4 percent of the pension subsidy accrues to the bottom 20 percent. By contrast, 57 percent of *Bolsa Familia* benefits accrue to the poorest 20 percent of households. The BPC lies somewhere in the middle, with around 43 percent of benefits accruing to the

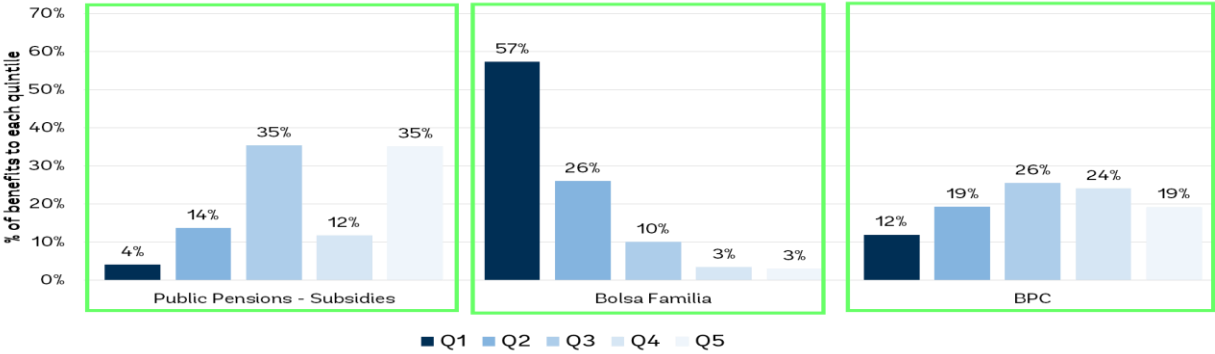
percent annually by 2030 and thereafter. Inflation converges towards 3 percent by 2030. Methodological details on the model can be found at:

<http://siteresources.worldbank.org/INTPENSIONS/Resources/395443-1121194657824/PRPNoteModeling.pdf>

^{***} To calculate this, we estimate average contributions and average benefits received by each quintile from PNAD data using prevalent pension system rules. Even though the share of contributions in total benefits is smaller for lower quintiles (i.e. the percentage subsidy is higher), because lower quintiles receive a much smaller share of total benefits, the incidence of total pension system subsidies is skewed to the better off.

top two quintiles and 12 percent to the bottom 20 percent (Chart 10). Another way to make this point is that there are few contributors and few beneficiaries of the pension system in the bottom quintile, and hence when the system runs deficits this is a transfer from society to the better off. By implication, the reform of the RGPS and RPPS would not have much impact on the poorest (and indeed would generate resources to increase allocations to pro-poor programs such as Bolsa Familia).

Chart 10. Distributional Analysis of Public Pension Subsidies, *Bolsa Familia* and BPC



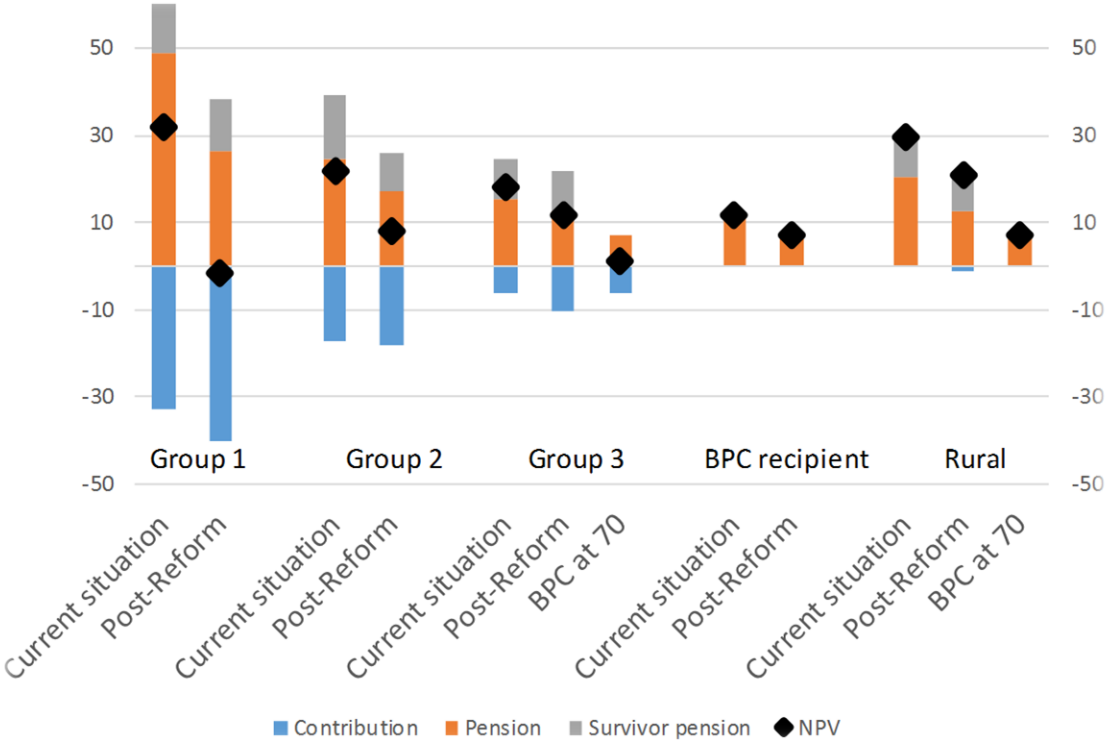
Source: World Bank estimates.

Using contributor data from the RGPS, we can also calculate the expected lifetime benefits accruing to different types of earners. To do so, we take three profiles of RGPS contributors based on observed contribution density: (i) group one is on track to achieve full length of service of 35 years before reaching regular retirement age and earns around 3 minimum wages on average; (ii) group two is on track to achieve the 25-34 minimum contribution years by age 60/65 for women and men respectively and earns around 2 minimum wages; (iii) group three will only achieve between 15-24 years of service and earns around 1.5 minimum wages. The first group accounts for around 50 percent of all RGPS contributors, the second for 20 percent and the third for 30 percent. We also compare the benefits accruing to these three groups to non-contributory pensions (BPC and rural pension). The net benefit of the current and reformed contributions is calculated as the difference between the net present value (NPV) of benefits minus contributions (whereby the expected value of a survivor pension is added to the NPV). For non-contributory pensions, the benefit is simply the NPV of future benefits.^{§§§} The basic result is that the highest net benefits of the current system accrue to workers in the first category, whereas after the reform, the highest gains go to the third group (Chart 11). A different way to present this result is to say that 78 percent of the total adjustment effort is born by workers in categories 1 and 2, which have the highest lifetime earning but account for just 35 percent of all workers if rural workers are included in the total. In other words, the reform makes the pension system more progressive than it currently is.

^{§§§} The discount rate used to calculate NPV benefits is the real wage growth rate, which in our model is calibrated to equal labor productivity growth. Because rural pensions are paid from age 60 for men and 55 for women 13 times a year, whereas BPC is received only at age 65 and paid 12 months a year, the net present value of rural pensions is much higher, even though the nominal benefit value is the same.

We can check this result by mapping average earnings of workers into the income distribution using the PNAD household survey.**** As Chart 12 confirms, formal workers earning 2 minimum wages or more predominantly belong to the top 60 percent of the income distribution, formal workers earning at least one minimum wage are clustered in the middle, whereas informal urban and rural workers are predominantly found in the bottom two quintiles. For these categories of workers, in particular, access to the minimum pension promises a significant improvement in welfare in their old age compared to their working lives.

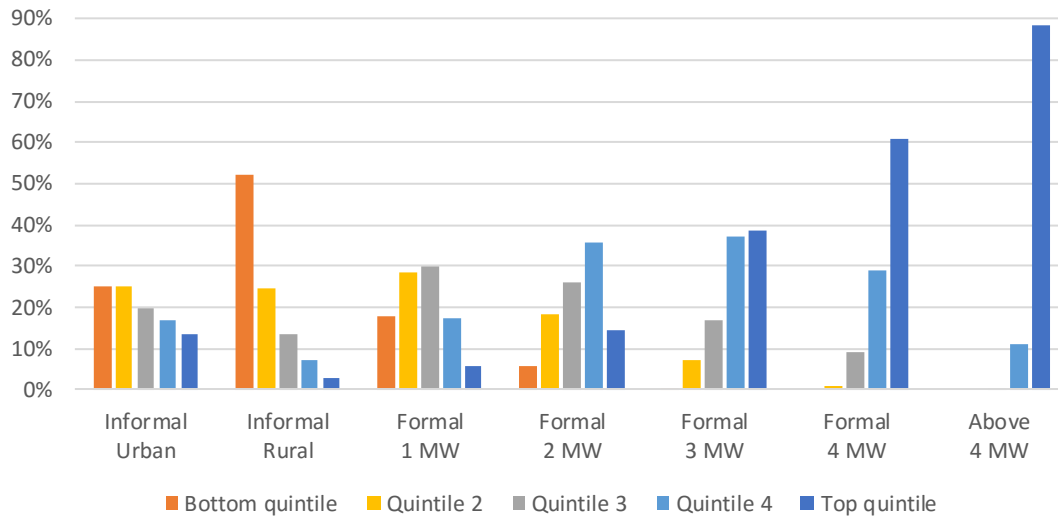
Chart 11. Net Present Value Over the Life-Time of RGPS Membership
(in number of minimum wages)



Source: World Bank estimates.

**** Note that this mapping is not precise, because the profiles used to find the result in Chart 12 are defined by length of contribution period and the average wage in each profile may include a substantial variation across earning categories. Nonetheless, it is fair to assume that there is a positive correlation between the earnings reported in the PNAD and the likelihood of belonging to a contributor profile with the same assumed average earnings.

Chart 12. Distribution of Informal Rural, Urban, and Formal Urban Workers by Income Quintile (in percent of total category)



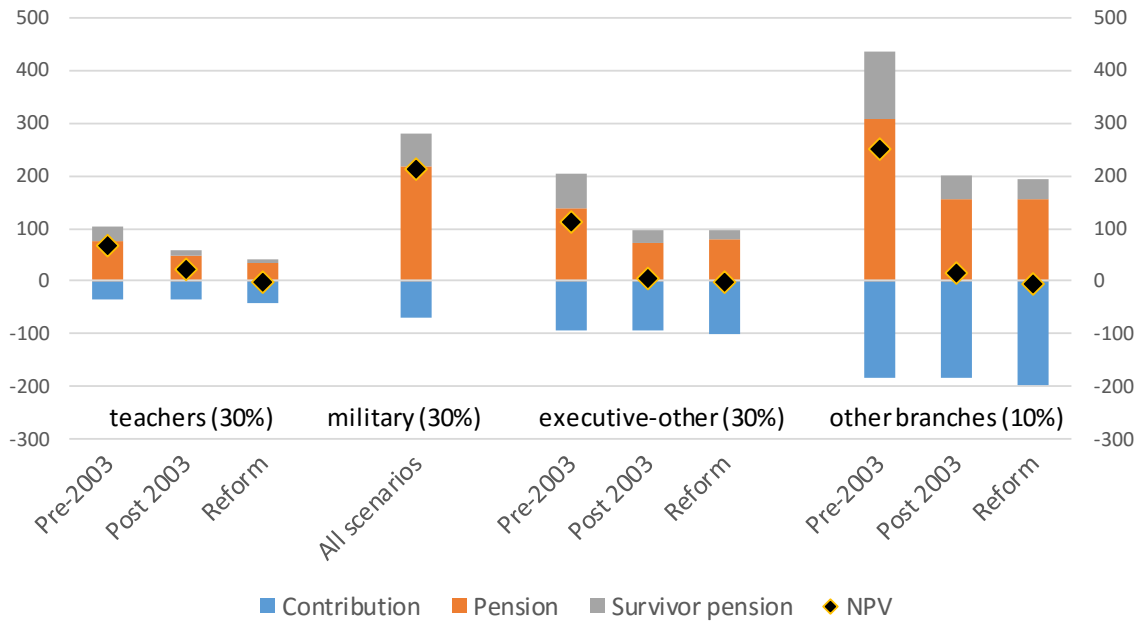
Source: World Bank estimates based on PNAD 2015.

The same calculations can be performed for the RPPS, although this would need to be done separately for the federation and every state. We present the calculations for Rio de Janeiro here just for illustrative purposes (Chart 13). Civil servants in Rio are among the best paid in the country, so the case is not representative, but the qualitative results are the same, as the vast majority of civil servants belong to the top 60 percent of the national income distribution.^{****} The net present value of RPPS benefits differs enormously for contributors belonging to the pre-2003 or post-2003 system. The 2003 reform in principle eliminated the actuarial deficit in the RPPS, except for the special regimes maintained for teachers and the military police (including the fire brigade). The implicit RPPS subsidy is enormous for all those in the pre-2003 system, with subsidies for the military so far unaffected by either the 2003 or the current reform proposal^{****}. The proposed elimination of the special regime for teachers would bring the NPV of their benefits down to the level of RGPS benefits and thus contribute to reducing RPPS deficits in the future. However, the critical problem in the RPPS are the acquired rights of civil servants under pre-2003 rules. Because of the generosity of transition rules, large cohorts of pre-2003 civil servants are still due to retire and will inflate RPPS deficits for another 15 years. We return to this issue in the conclusion.

^{****} Over 90 percent of civil servants in Rio de Janeiro are in the top two income quintiles, compared to 79 percent of federal civil servants.

^{****} Comparing Chart 11 and 13, we can see that NVP subsidies for the military in the RPPS, for instance, are 200 minimum wages, versus 30 minimum wages for group 1 contributors to the RGPS prior to the reform. For teachers the post-2003 net benefits still equal to around 23 minimum wages, in between benefits for group 1 and group 2 contributors to the RGPS (prior to the proposed reform).

Chart 13. Net Present Value Over the Lifetime of RPPS Membership, Rio de Janeiro
(in number of minimum wages)^{§§§§}



Source: World Bank estimates.

The proposed pension reform in Brazil thus not only contributes significantly to overall fiscal adjustment, but also makes the pension system less regressive than it was. The result is not at all unfair to richer workers. The reform merely reduces the subsidies that this group of workers retrieves from the system, so that their benefits are comparable to their contributions. Importantly, the poorer workers, with fewer years of contribution, are relatively better off after the reform than the higher income workers, whereas the opposite is true in the current system.

Conclusion and areas for further discussion

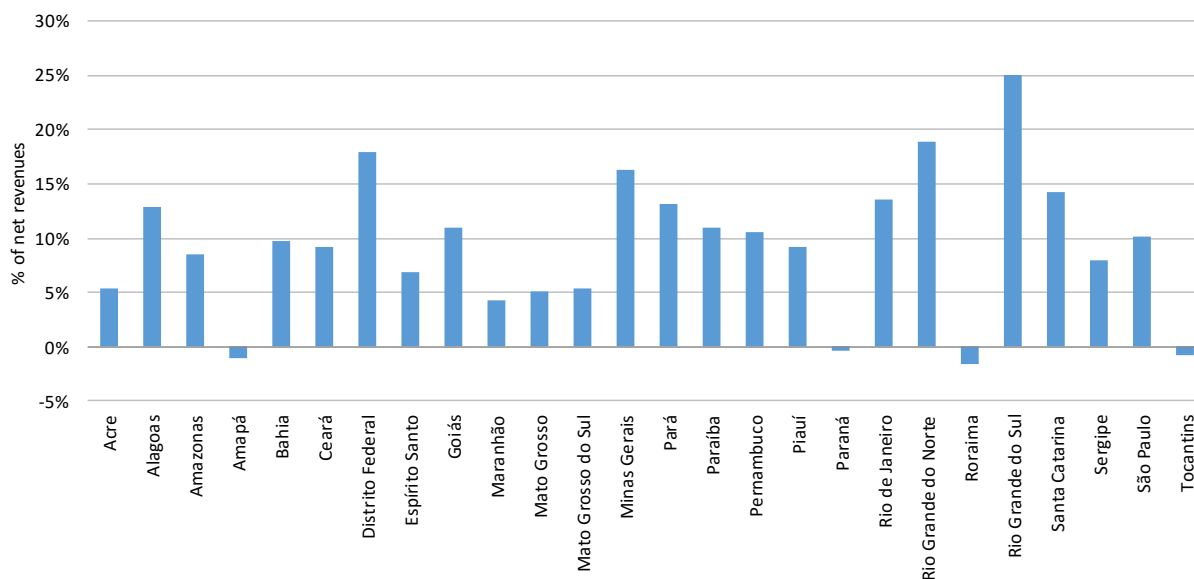
The pension reform under discussion in Brazil at the moment reduces the projected pension deficit by half over the next 50 years and constitutes a critical element of regaining fiscal sustainability. The proposed reform would move Brazil closer to international benchmarks and make its public pension system more sustainable. The proposed reform would also make the system more equitable as it places a higher burden of adjustment on higher income workers.

However, there are two issues, which the current discussion does not fully address. The first is how to deal with the large RPPS deficits resulting from the pre-2003 cohort of civil servants. These deficits are so large in some of Brazil's states that honoring existing pension obligations may not be fiscally possible even if the states implement their own reform of the RPPS following federal parameters (Chart 14.) Given that RPPS beneficiaries are among the better off, it would seem important to discuss how they might contribute to sharing the burden of the necessary fiscal adjustment at the state level. Higher taxes on pensions above the INSS threshold are one option. Others may need to be considered (such as reducing

^{§§§§} Military here refers to military and civilian police as well as fire brigade (*bombeiros*).

the possibility to collect multiple pensions; reforming military pensions; and reducing the transition period for RPPS schemes, including the special programs).

Chart 14. State Pension Deficits, 2014
(in percent of net revenues)



Source: Ministério da Fazenda – Secretaria da Previdência Social (2015).

The second issue for further consideration concerns the interaction between the old age pension rules and non-contributory social transfers, in particular the BPC. Workers who do not reach at least 25 years of contribution will receive the BPC. But since the BPC is received by all pensioners with incomes below a certain threshold regardless of years of contribution, the reform would create no incentive for such workers to contribute at all. As a result, BPC claims could increase significantly and contributions may decline, increasing pension deficits. Some form of recognition for years of contribution below the minimum threshold proposed may need to be considered. One measure the government has proposed is raising the age threshold for accessing BPC from 65 to 70. Since workers would still receive a pension once they reach 25 years of contribution, this would create incentives for workers to contribute. *****

To close, the basic message of this note has been that the proposed pension reform in Brazil is necessary, urgent if Brazil is to meet its spending rule, and socially balanced in that the proposal mostly eliminates subsidies received under the current rules by formal sector workers and civil servants who belong to the top 60 percent of households by income distribution. Pension reform is an opportunity for Brazil to achieve a substantial fiscal adjustment without hurting the poor.

***** Additional measures may be needed to prevent premature retirement through fraudulent disability claims. Disability pensions are also linked to the minimum wage and claims enforced through the judiciary have increased dramatically over the past decade. Some workers may decide to go this route and access a minimum pension rather than waiting until they are 70 to access BPC.

References

- European Commission (2015). *The 2015 Ageing Report. Economic and budgetary projections for the 28 EU Member States (2013-2060)*. European Economy 3 (2015)
(http://ec.europa.eu/economy_finance/publications/european_economy/2015/pdf/ee3_en.pdf)
- European Commission (2015). The 2015 Pension Adequacy Report: current and future income adequacy in old age in the EU. (<http://bookshop.europa.eu/en/the-2015-pension-adequacy-report-pbKE0115673/>)
- IBGE (Instituto Brasileiro de Geografia e Estatística) (2013). *Projeção da População do Brasil por sexo e idade:2000-2060*.
http://www.ibge.gov.br/home/estatistica/populacao/projecao_da_populacao/2013/default_tab.shtm)
- Instituição Fiscal Independente (2017). *Relatório de Acompanhamento Fiscal, Março de 2017*.
(http://www12.senado.leg.br/ifi/copy2_of_RAF2_Final_20170303_Previdncia_2.pdf)
- Ministério da Fazenda – Secretaria da Previdência Social (2017), *Boletim Estatístico da Previdência Social*. (<http://www.previdencia.gov.br/dados-abertos/boletins-estatisticos-da-previdencia-social/>)
- Ministério da Fazenda – Secretaria da Previdência Social (2014), *Anuário Estatístico da Previdência Social*. (<http://www.previdencia.gov.br/wp-content/uploads/2015/08/AEPS-2015-FINAL.pdf>)
- OECD (Organization for Economic Co-operation and Development) (2015). *Pensions at a Glance 2015*. OECD and G20 Indicators. OECD. Paris. (<http://www.oecd.org/publications/oecd-pensions-at-a-glance-19991363.htm>)
- Whitehouse, Edward (2016). "Pensions for Public-Sector Employees: Lessons from OECD Countries' Experience." *Social Protection and Labor Discussion Paper*, N. 1614.
- WHO (World Health Organization) (2015). World health statistics 2015.
(http://www.who.int/gho/publications/world_health_statistics/2015/en/)