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Rightsizing Brazil's Public-Sector Wage Bill

by Izabela Karpowicz and Mauricio Soto

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Rightsizing Brazil's Public-Sector Wage Bill

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Authorized for distribution by Antonio Spilimbergo

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Abstract

Brazil's public-sector wage bill is comparatively high. It grows inertially and competes with other spending. Rightsizing the wage bill could stimulate administrative efficiency and bring more equity into a system where public employees earn more than private in comparable professions. Most importantly, however, a reform is necessary to comply with the Federal government expenditure ceiling and the subnational fiscal responsibility rules. A reform should thus encompass all government levels, and all careers, and should aim to achieve a real decrease in salaries and lower employment. In the medium term, a review of the compensation structure should rationalize the multitude of wage grids, merge allowances into the base wage, and align public sector compensation to private wages in low-skilled professions.

JEL Classification Numbers: H50, H76, J31, J33.

Keywords: wage bill, employee compensation, public spending, fiscal rules.

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A. Overview

Rightsizing personnel expenditure (hereafter "the wage bill") is coming to the fore of the reform agenda. As the government strives to meet multiple goals—regain fiscal sustainability, comply with fiscal rules, and improve income distribution—taking a closer look at the wage bill across all government levels becomes necessary.

Containing the wage bill is essential to comply with fiscal rules and ensure fiscal sustainability. A 2016 constitutional amendment limits Federal government's primary expenditure growth to the rate of inflation. Meeting this rule requires a break from historical trends: on average, the Federal wage bill increased by about 4 percent per year in real terms in 2000-16. In subnational governments, containing wage bills is fundamental to maintain personnel expenditure below the 60 percent of the net revenues ratio (at least two States are already surpassing this level), as mandated by the fiscal responsibility law.

Reviewing government compensation can have productivity spillovers. Growth of wages in the public sector may put pressure on economy-wide wages as, across many professions, public wages can be used as benchmarks for private sector compensation. Evidence suggests that Brazil's wages have grown above productivity in recent years and may be hindering job creation and growth (Lipinsky, 2015). In addition, high compensation levels in the public sector can crowd out available skills that are much needed to support private sector competitiveness and job creation.

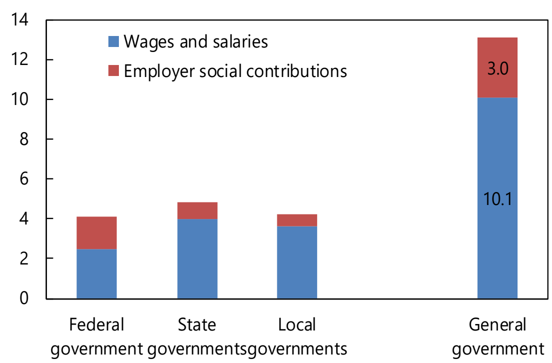
Moderating civil servants' wage growth would be equitable. Over the past decade, labor formalization, income growth, *Bolsa Família*, and schooling have contributed to declining inequality. But growth of civil servants' incomes has affected equality negatively (Góes and Karpowicz, 2017). To the extent that wages are higher in the public sector than in private sector, systematic government wage increases have undermined the success of redistribution policies and slowed equality gains in Brazil. Indeed, most government employees are in the top two quintiles of the income distribution in the country.

The Brazilian experience in managing the wage bill can provide lessons to other countries that might also need to evaluate government compensation and employment practices in the context of broader reforms. International experiences suggest that increases in the wage bill tend to be associated with worse fiscal outcomes and can have adverse implications for private sector employment (IMF 2016). In some countries, wage bill policies have had limited success in achieving their objectives, while exacerbating fiscal pressures and constraining inclusive growth (IMF 2018). The literature suggests that blunt responses such as wage and hiring freezes can provide temporary relief. Structural reforms that target sectors with excessive employment and wage levels, supported by strong institutions, are required for more sustained wage bill adjustment while protecting service delivery.

B. Background

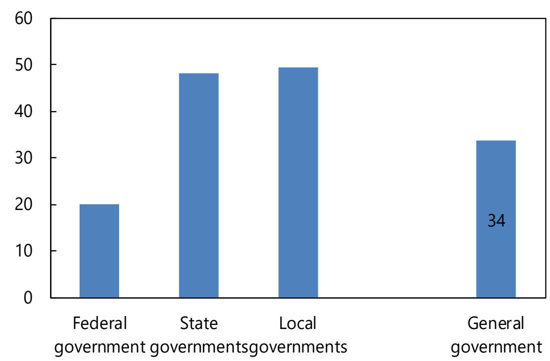
In the general government, expenditure on compensation of reached 13 percent of GDP in 2016. The wage bill includes spending on wages and salaries (10 percent of GDP) and the government's social contributions as an employer (3 percent of GDP) (Figure 1). The wage bill accounts for a substantial portion of government expenditure. In the Federal government, the wage bill is the second largest primary spending item after social security benefits (Figure 2). In State and Municipal governments, it is nearly half of primary expenditure.

Figure 1. Compensation of Employees, 2016
(Percent of GDP)



Source: GFS.

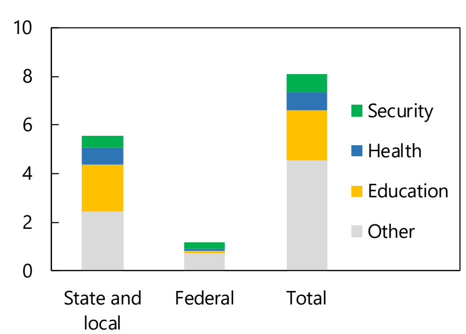
Figure 2. Compensation of Employees, 2016
(Percent of Primary Spending)



Source: GFS.

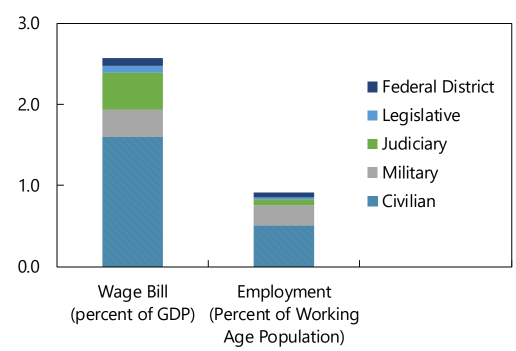
Subnational governments account for a large share of the general government wage bill. Nearly 75 percent of the wage bill and 85 percent of government employment are in State and Municipal governments. This reflects the division of responsibilities: about 55 percent of employees in State and Municipal governments are in health, education, and security, compared to 35 percent in the Federal government (Figure 3). The Federal government includes the judiciary (accounting for 8 and 17 percent of the Federal government employment and wage bill, respectively), and the military (accounting for 28 percent and 13 percent of the Federal government employment and wage bill, respectively).

Figure 3. Government Employment, 2015
(Percent of Working Age Population)



Source: PNAD.

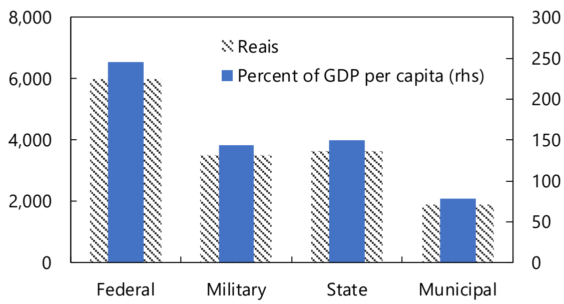
Figure 4. Federal Government Wage Bill and Employment, 2016



Source: Planejamento / SIAPE.

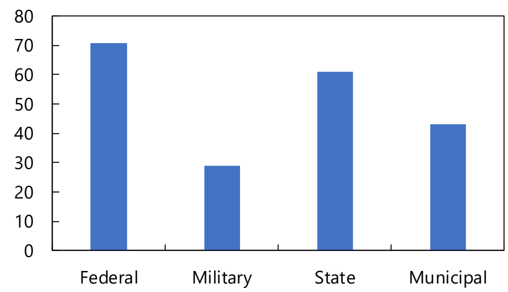
There are substantial disparities in pay across the different levels of government. Average compensation levels are considerably higher for civilians in the Federal government (about to R$6,000 per month in 2015), than for military (about R$3,500), State officials (about R$3,500), and Municipal employees (about R$1,900) (Figure 5). While Federal government employees tend to be better educated (Figure 6), the differences in pay across governments remain controlling for schooling, with wider differences for those with high school or more.

Figure 5. Government Employment, 2015
(Percent of Working Age Population)



Source: PNAD.

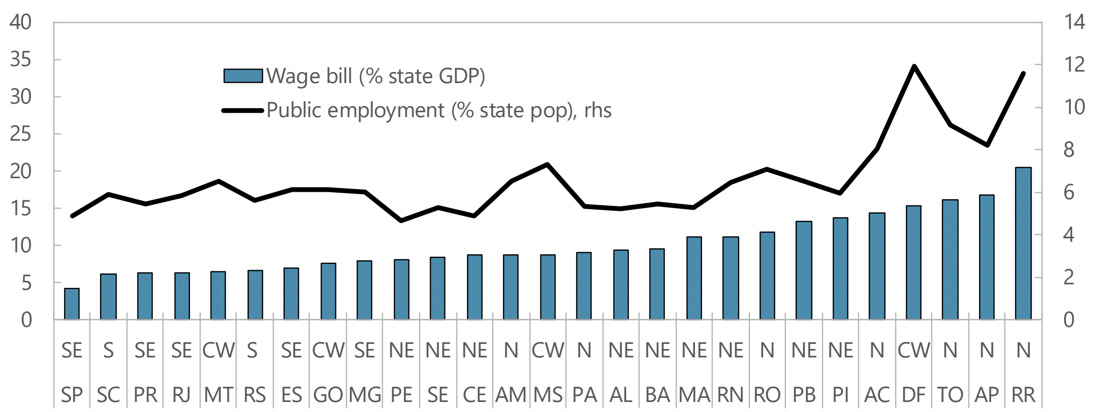
Figure 6. Share of Employees with Education Beyond High School



Source: PNAD.

The wage bill varies considerably across States. As a share of their own GDP, States spend between 4 (São Paulo) and 20 (Roraima) percent of GDP (Figure 7). Poorer, smaller States in the north and north-east tend to spend more on wage bill (as a share of their economy and per capita) and have higher government employment (as a share of the State population). An exception is the Federal District (DF), where the central government administration is located, with the highest per capita wage bill. Government wage bill in the education sector follows a similar pattern—higher in poorer States and dispersed (between 0.8 and 4.5 percent of State GDP). Public health wage bills are substantially smaller.

Figure 7. Government Wage Bill and Employment, by State, 2015

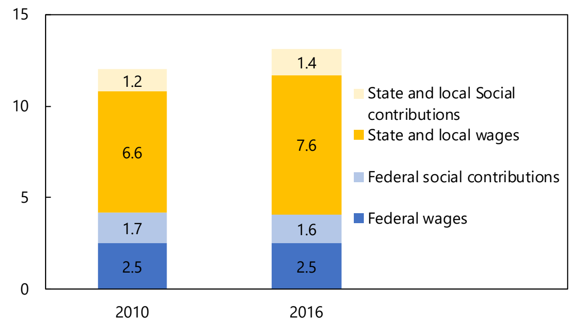


Source: PNAD.

C. The Need for Government Wage and Employment Reform

The wage bill has been increasing, particularly in subnational governments, raising concerns about fiscal sustainability. Spending on compensation of employees increased by 1 percentage point of GDP in 2010-16, largely reflecting higher wage expenditure in State and Municipal governments (Figure 8). In the Federal government, although the wage bill increased in real terms over the six years, it has remained broadly constant in percent of GDP. This is the case for employee compensation in the Federal executive, judiciary, and legislative branches.

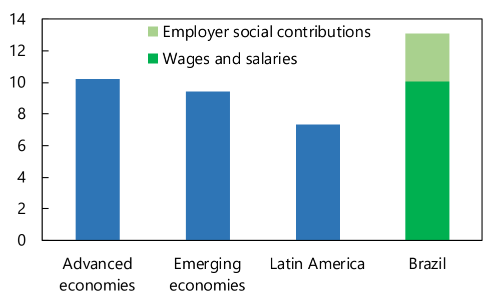
Figure 8. Compensation of Employees, 2010-16
(Percent of GDP)



Source: Government Finance Statistics.

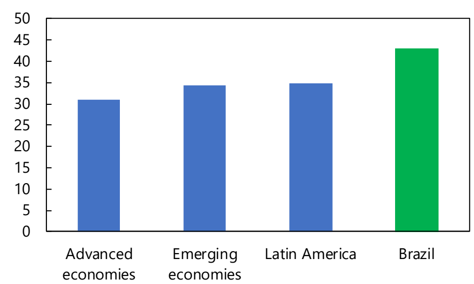
The wage bill is high relative to peers. At 13 percent of GDP, the wage bill is substantially above comparators, including advanced economies (where the average compensation of government employees is 10 percent of GDP), emerging economies (9 percent of GDP), and Latin America (8 percent of GDP) (Figure 9). This is true even considering only spending on wages and salaries (Box 1 discusses measurement issues and cross-country comparisons). Employee compensation stands at nearly 45 percent of general government revenue, a much higher share than advanced and emerging economies (Figure 10). Brazil spends more than other emerging markets on compensation of public employees also in per capita terms. Adjusted for PPP (2015), Brazil's wage bill per capita is higher than the average observed in LA5s, the LAC, the EMs and the entire sample of 158 countries.

Figure 9. Compensation of Employees, 2016
(Percent of GDP)



Source: IMF staff calculations using WEO and GFS data.

Figure 10. Compensation of Employees, 2016
(Percent of Government Revenue)



Source: IMF staff calculations using WEO and GFS data.

Box 1. Statistical Issues and Cross-Country Comparability

Variability in wage bills across countries reflects differences in preferences regarding the role of the government in the economy. Higher preference towards spending on public education, health and security generally results in a larger number of teachers, police, and health professionals and thus a more elevated wage bill. Large federations typically require a bigger administration, though, in per capita terms, countries with small population suffer from diseconomies of scale and can end up to spending more on the wage bills given that a certain minimum size of public employment is necessary for the functioning of the government.

There are also notable differences in statistical coverage of the wage bill across countries. Cross-country-comparisons may be marred by differences in coverage of governmental units. Moreover, while advanced economies mostly report wage bill statistics on accrual basis, developing countries cash accounting is more common. Brazil reports under the wage bill a broad category of personnel expenses and includes all budgetary outlays on remuneration of active workers under civil and military public employment including fixed and variable salaries, allowances and benefits, gratuities, overtime and personal benefits of any nature. Brazil's wage bill covers the general government and excludes the SOEs.

Public Sector Wage Bill - Various Sources, 2015
(Percent od GDP)

	GFS	Auth	PNAD
Wage bill	**13.1**	**11.9**	**6.9**
Federal	4.1	4.0	1.9
Active		2.3	1.9
Inactive		1.7	n.a.
State	4.9	5.5	2.7
Active		3.4	2.7
Inactive		2.1	n.a.
Municipal	4.1	2.4	2.4
Active		1.5	2.4
Inactive		1.0	n.a.
Employment	n.a.	**1.4**	**11.6**
Federal	n.a.	1.4	1.7
State	n.a.	n.a.	3.7
Municipal	n.a.	n.a.	6.3
Active total	n.a.	**7.1**	**6.9**

Sources: GFS, BEP, PNAD and staff estimates.

But Brazil's wage bill statistics also include public pension deficits. According to GFSM 2014, when government units as employers provide social benefits directly to their employees, former employees, or dependents out of their own resources matching social contributions are reported in revenues and expenditures. Pension system actuarial deficits are treated as spending on employees and imputed equal to the amount of social contribution that would be needed to cover the deficit. At central government level[1], Brazil's wage bill, as reported in the GFS, includes wages and salaries, employers' social security contributions, and imputed contributions. However, the latter constitute the actual current public social security (RPPS) deficit and are calculated as the difference between total contributions to the RPPS (employers' and employees') and total RPPS outlays on retirement pensions and other benefits. Total contributions included in the wage bill (actual and imputed) amounted to R$93.9 bn in 2015 (1.6 percent of GDP) and correspond to compensation of "inactive" workers in the authorities' budget. Total spending on "active" workers at all government levels is estimated at 7.1 percent of GDP and closely tracks wages reported in the households' survey (PNAD).

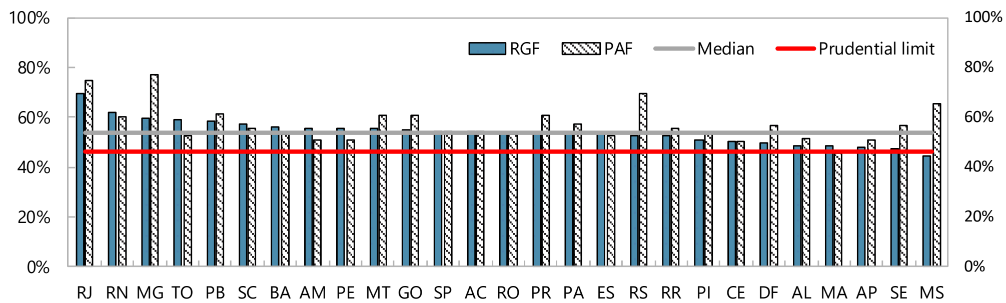
[1] There are no imputed social security contributions in States' and Municipalities' wage bills.

Curtailing the Federal government wage bill is crucial to comply with the constitutional expenditure ceiling. A constitutional rule caps Federal government's primary expenditure growth to the rate of inflation. To comply with this rule, Federal government's expenditure must be reduced by 2.5 percentage points of GDP (from about 20 to 17.5 percent of GDP in 2017-23). This will require a pension reform (to offset the projected growth in pension spending), substantial reductions in other expenditure items, and reducing the Federal government expenditure in personnel by at least 1 percentage point of GDP (Figure 11). Such adjustment in the wage bill requires a break from historical trends—the Federal wage bill has traditionally increased in real terms, and complying with the rule will imply real reductions. In State governments, reducing the wage bill is important to comply with the fiscal responsibility law (Box 2).

Box 2. Subnational Wage Bill Rules and Creative Accounting

Brazilian States have not been compliant with wage bill rules. Subnational governments have been hard hit by the 2015-16 recession through a sharp decline in own revenues, in particular from ICMS taxes and oil royalties. As spending on personnel is rigid, many States surpassed the rule limiting personnel spending as a share of net current revenues, established by the Fiscal Responsibility Law. In 2015 already, 15 out of 27 States breached the limit, while the rest were approaching it. The States' wage bill declined in real terms in 2016, but in the majority of States the wage bill remained above prudential ratios.

Personnel Spending/Net Current Revenues, 2016
(Percent)



In practice, States' wage bills did not conform with fiscal rules also in the past but States have used accounting tricks to circumvent the rules on personnel spending. First, they under executed spending on wages and classified them as previous year's expenditures (accounts payable) in the successive year. Second, they excluded some items from personnel expenses, such as the withholding of tax, indemnity payments, and allowances. Finally, some States have made more use of outsourcing activities which *de facto* shifts personnel spending to other administrative expenditures. These accounting gimmicks were sanctioned by States' own auditors who monitor application of subnational rules that are established at the national level. As part of the effort to monitor the implementation of the subnational fiscal adjustment programs (PAF), the first of which was agreed with Rio de Janeiro, the Treasury established a single accounting system standardizing information included in the calculation of wage bill ratios. The revised methodology resulted in an upward adjustment of the wage bill ratios in all States.

Municipalities Personnel Expenditure/Net Current Revenue, 2016
(Percent)

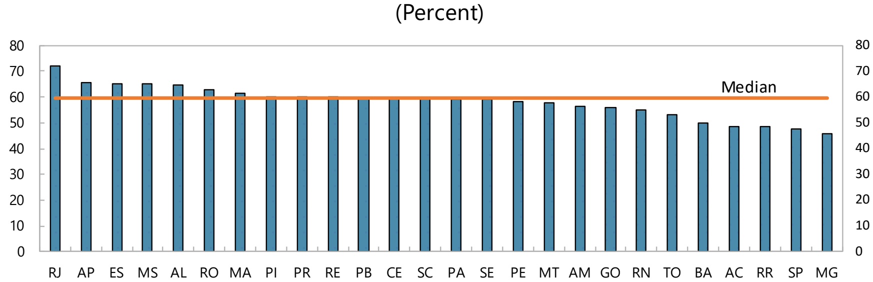
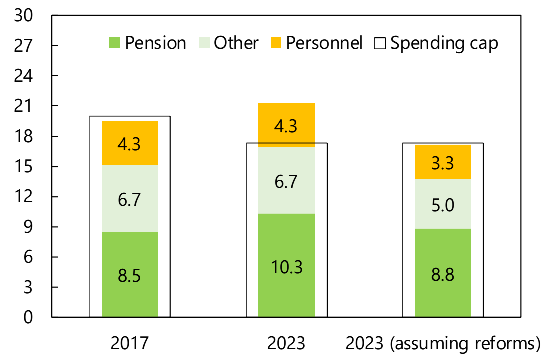


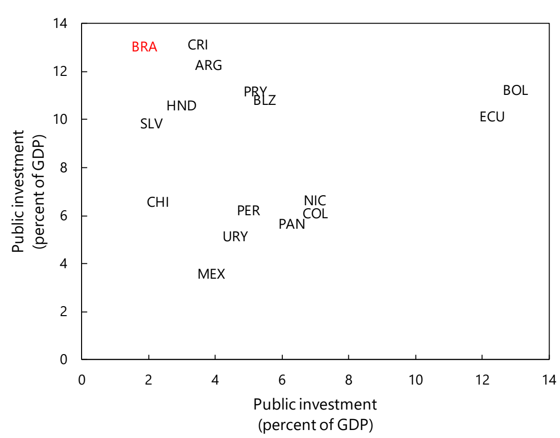
Figure 11. Federal Government Expenditure, 2017-23
(Percent of GDP)



Source: IMF staff calculations.

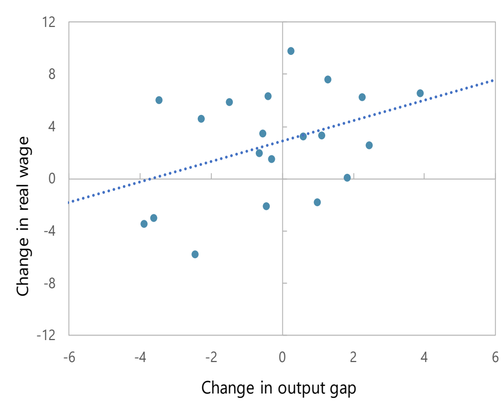
The considerable space taken by the wage bill limits other spending. Brazil's wage bill is six times greater than public investment. This reflects a very low public investment level in Brazil and high spending on personnel (Figure 12). Furthermore, the wage bill is procyclical. In real terms, the wage bill has displayed some pro-cyclicality over the last three decades, increasing on average 0.47 percentage point for a 1 percent increase in the output gap, above emerging market average (Figure 13) (IMF, 2016).

Figure 12. Public Investment and Wage Bill in Latin America
(Percent of GDP)



Source: IMF staff calculations.

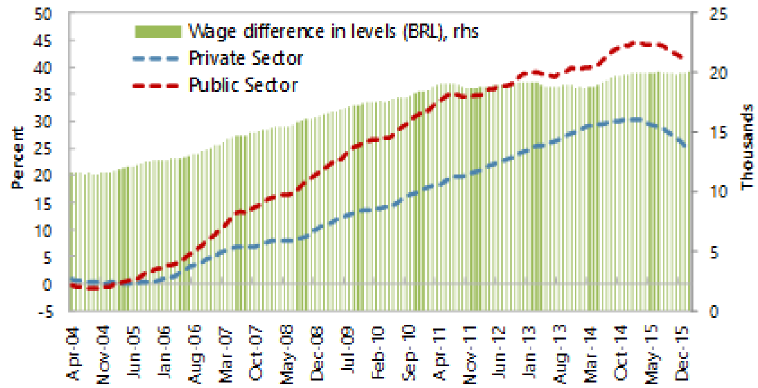
Figure 13. Change in Wage Bill and Output Gap, 1990-2016
(Percent)



Source: IMF staff calculations.

In the past decade, government wages have outpaced those in the private sector. In the past decade, public wages increased by nearly 45 percent in real terms while those in the private sector increased by about 25 percent (Figure 14). Such growth puts pressure on economy-wide wages as, across many professions, public wages can be used as benchmarks for private sector compensation. This can also crowd out available skills that are much needed to support private sector competitiveness and job creation.

Figure 14. Real Annual Earnings, per Sector, 2004-15
(12-month rolling change)

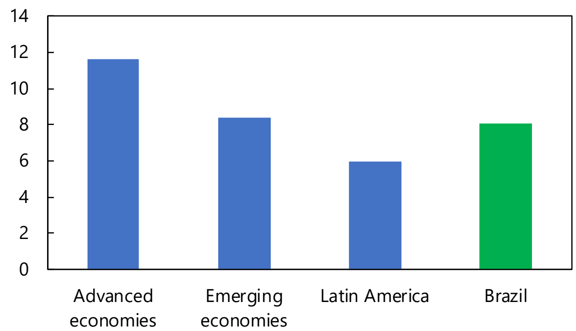


Source: Góes and Karpowicz (2017).

The level of pay is the main factor explaining the relatively high wage bill. Brazil's general government *employment* is about is in line with those observed in other emerging markets and developing countries (below 9 percent of working-age population), albeit slightly higher than in other Latin American economies (Figure 15). In contrast, government workers command substantially high pay premium compared to those in the private sector relative to other countries. Controlling for observable characteristics (including age, education, gender), public pay is about 30 percent higher than in the formal private sector. This markup is substantially above the average markup (9 percent) for countries in the Luxembourg Income Study (Figure 16). This is consistent with recent work that shows that, controlling for observable characteristics, public sector wages are as high as 50 percent higher than private wages for those with fewer years of education, but the premium decreases somewhat at higher educational levels (Góes and Karpowicz, 2017) (Figure 17). The markup has been increasing over time, particularly at the State and Municipal governments. The wage gap against the private sector is higher in poorer States (Figure 18).

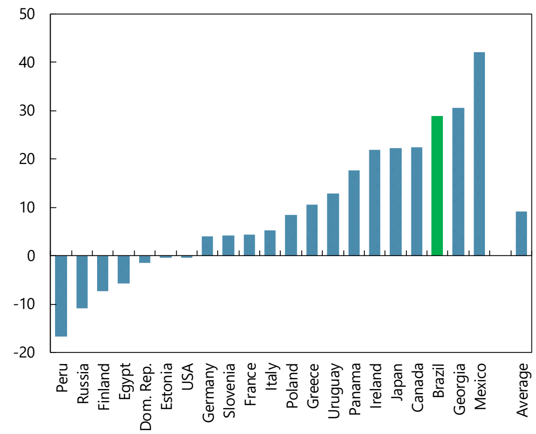
The wage gaps would be even higher from the perspective of the lifetime income. Median monthly earnings are higher for public sector workers between 20 and 64 years old in Brazil (IMF, 2017). Moreover, lifetime net pension benefits are also higher in the public sector. The net transfer received by the government (the difference between all retirement and survivor benefits on the one hand, and all contributions paid by or on behalf of the employee, on the other hand) is particularly high for public workers implying a high internal rate of return of their pensions (Cuevas and others, 2017). When controlling for the more generous retirement benefits, public-private cumulative lifetime pay differentials are even higher.

Figure 15. Government Employment
(Percent of Working Age Population)



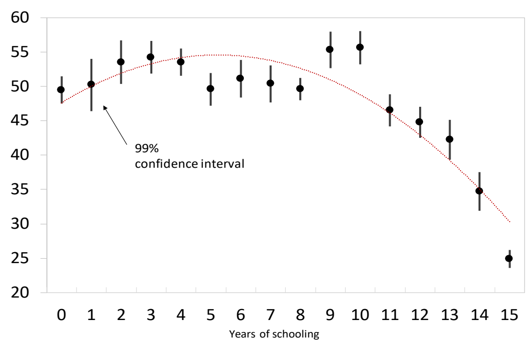
Source: IMF staff calculations using WEO and GFS data.

Figure 16. Public Wage Premia
(Percent)



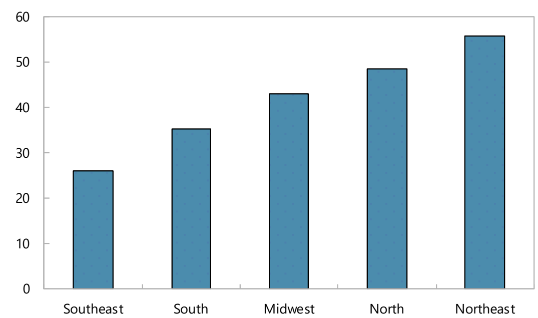
Source: IMF staff calculations using LIS data.

Figure 17. Public Median Wage Premia, by Years of Education
(Percent Difference over
Predicted Private Sector Wages)



Source: Góes and Karpowicz (2017).

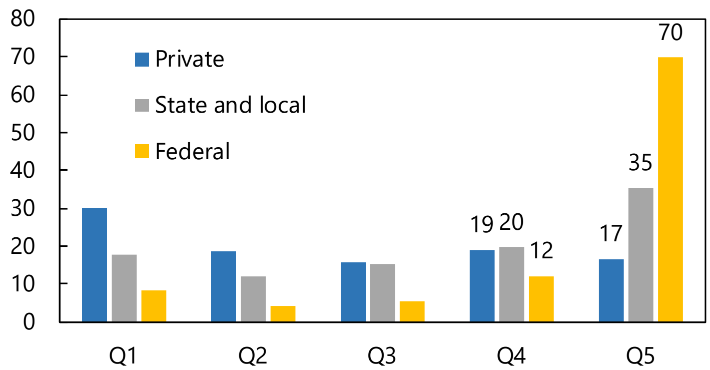
Figure 18. Public Wage Premia, by Region
(Percent)



Source: IMF staff calculations.

Government workers, particularly those in the Federal government, are among the better off in the earnings distribution. Most government workers are in the top two quintiles of the earnings distribution (80 percent of Federal government workers and 55 percent of State and local government workers) (Figure 19). To the extent that wages are higher in the public sector than in private sector, systematic government wage increases might have undermined the success of redistribution policies and slowed equality gains in Brazil.

Figure 19. Distribution of Employment, by Sector and Earnings Quintile
(Percent of Total)



Source: PME/IBGE; and IMF staff calculations.

D. The Federal Government in Focus

At the Federal government level, timely payroll data is publicly available from the Transparency Portal. The monthly payroll data for over 580 thousand civilian employees includes name, position, total earnings, terms of contract, and tenure (Table 1). The mean Federal earnings is about R$9,600 (median is $7,700). Earnings at the 90th are 5.4 times those at the 10th percentile, with more compression by skills (the ratio is about 3 within lower and higher skilled positions). Over 95 percent of those in the payroll have permanent contracts. The average tenure is 16 years, with higher tenure for those in lower-skilled positions.

Table 1. Summary of Civilian Federal Payroll, October 2017

	Gross monthly salary			Contractual (percent)	Tenure (years)	N (thousand)	Percent of	
	Mean	Median	P90-P10				employment	wage bill
Lower skills	5,685	5,115	3.0	7.3	19.5	273	47	28
Clerical	5,364	4,974	2.7	7.3	19.5	209	36	20
Technical	6,733	6,272	2.8	1.1	19.8	64	11	8
Higher skills	11,641	11,324	3.2	2.6	14.3	274	47	57
Professional	9,541	8,630	2.6	0.9	14.6	19	3	3
Professor	12,012	11,630	3.2	0.9	11.2	131	22	28
Health care	13,907	13,849	4.1	1.1	17.2	20	3	5
Analyst	14,004	13,397	3.2	1.2	12.1	34	6	8
Management	23,872	24,943	1.5	0.4	15.9	36	6	15
All	9,611	7,647	5.4	4.2	16.3	583	100	100

Source: Portal da Transparencia.

The civilian Federal workforce includes a diverse range of skills and pay. Clerical, administrative and technical employees account for 47 percent of employment and 28 percent of the Federal government wage bill. The rest corresponds to professionals (including higher education professors, management and high-ranking government officers, health and social security professionals, and police) (Figures 20 and 21). The different shares of employment and compensation reflect pay differentials largely related to levels of education and responsibility: the average monthly pay of clerical and administrative employees is about R$5,700, while professionals earn R$11,600 per month and high-ranking officers R$23,900 per month.

The compensation structure depends on multiple career streams that reward seniority and complicate wage bill management. There are over 130 career streams (*carreira*) setting specific rank and pay progression and allowances for government employees, defined across occupational and professional job categories (OECD, 2010). Theses streams are often entity-specific, preventing mobility across ministries. Only about one quarter of the Federal workforce is under "job groups" that allow for mobility across different entities.

- *Higher skilled positions command higher earnings.* In a log-earnings specification, controlling for entity and geographical location, lower skill workers earn about 68 percent less, while those in managerial positions earn 65 percent more relative to workers in professional positions (Table 2).

Table 2. Coefficients of Log Earning Regressions

	All	All	Lower skills	Higher skills
Lower skills		-68		
Management		65		62
Contractual	-26	-65	-17	-139
Tenure 0-20 years	2.8	2.9	2.0	3.3
Tenure 20+ years	-0.3	-0.4	-0.1	-0.7
Entity controls	Yes	Yes	Yes	Yes
State controls	Yes	Yes	Yes	Yes
Job description controls	Yes	No	No	No
N (thousand)	567	567	262	306
R2	0.68	0.62	0.28	0.61

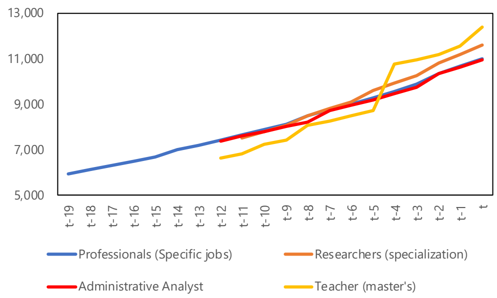
Source: IMF staff calculations.

Note: All coefficient shown are significant at the 99 percent level.

- *Seniority is an important determinant of earnings*. Each additional year of tenure up to 20 increases earnings by 2 percent in low-skilled positions and 3.3 in high-skilled positions. However, the premium for additional years of tenure disappears after 20 years. This reflects the typical wage profile associated with many careers, with automatic increases of 3-4 percent for the first 10-20 years of service in professional posts (in other words, pay would be about 30-40 percent higher for those with 10 years of tenure compared to new entrants in the comparable positions), and 1-2 percent in clerical positions (Figures 20 and 21).

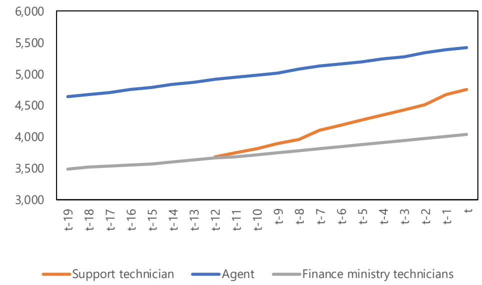
- *Pay also includes a performance component.* Federal government pay also includes a performance-based bonus (*gratificações e bônus de desempenho*) reflecting a combination of reaching institutional (80 percent) and personal goals (20 percent). However, these bonuses can only be weakly related to performance: nearly 80 percent of the government workforce received the bonus in 2017.

Figure 20. Monthly Earnings by Tenure, Selected Professional Careers
(Reais)



Source: Boletim Estatístico de Pessoal e Informações Organizacionais.

Figure 21. Monthly Earnings by Tenure, Selected Administrative Careers
(Reais)



Source: Boletim Estatístico de Pessoal e Informações Organizacionais.

The multitude of careers and wage grids introduce disparities in earnings for similar positions *across* different entities. Controlling for position, terms of contract, tenure, and State, Federal government earnings vary substantially across entities and ministers. The ministries of Energy and Commerce are among the entities in the top in terms of pay and the Ministries of Defense and Environment (Figure 22). These differences can be striking and seem to contradict the principle of equal pay for equal work. On average, a motorist in the Ministry of Energy earns about 30 percent more than in the rest of the Federal government, and a telephone operator in the Ministry of Transportation earns 53 percent more than in the rest of the Federal government.

The wage structure is relatively compressed, introducing some distortions. Over 90 percent of Federal government civilian employees receive earnings above R$3,500 (R$3,100 after tax withholding and deductions). This is over 3.5 times the minimum wage and nearly equal to the average earnings that a *professional* could expect to earn in the private sector.[2] The combination of relatively high government wages for low-skilled workers, the high returns to seniority, and the disparate compensation by entity explain why workers in clerical, administrative, and technical positions often earn higher wages than entry level professionals. For example, an *auxiliar* with 10-20 years of service can earn a salary higher than an entry-level *engineer*.

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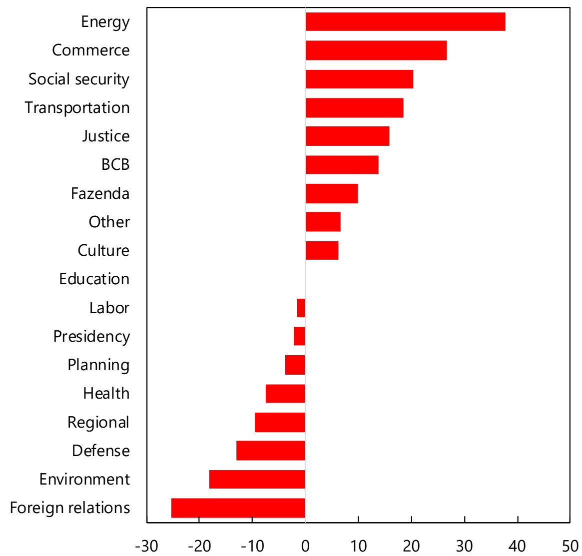
[2] In the PNAD 2015, the average monthly wage of salaried professionals with a formal contract was R$3,200.

Figure 22. Wage Differentials by Federal Entity
(Percent)



Source: IMF staff calculations.
Note: Coefficients of entity in log-earnings regressions controlling for job position, tenure, and state. The excluded entity is the Ministry of Education which has average earnings slightly below the average for the Federal government. Wage differentials are similar for low-skilled workers.

The wage scales are updated periodically through agreements between the Federal government and the different categories of workers. Agreements can cover different groups covered under different careers and wage structures, for example, the police, the Ministry of Finance, the Treasury, teachers, and doctors. For example, in the 2015 salary accord, the government and employee representatives agreed to a salary increase in two steps: 5.5 percent to be effective august 2016, and 5 to be effective January 2017. This was originally agreed with about 70 percent of workers representing different career streams and entities, and later extend to the wider Federal sector. However, these adjustments were delayed during the crisis, and the first adjustment took place only in January 2018.

E. Reform Options

Government wage bills are inertial. The Constitution provides job stability to government workers after three years of service (Art. 41). Thus, meaningful employment reductions can only be achieved by attrition (replacing fewer workers than those who retire). The Constitution also states that government remuneration cannot be reduced in nominal terms (Art. 37. XV). Thus, pay adjustments can generally only be made by limiting wage increases. And even in the absence of negotiated pay increases, nominal wages tend to go up automatically with the seniority premium that applies to most careers.

To achieve fiscal savings in the near term, wages would have to fall in real terms and the employment to population ratio would have to come down. In a baseline where annual negotiated wage increases are above the rate of inflation (consistent with recent experience) and government employment grows in line with population growth, the wage bill would remain roughly stable in percent of GDP. Achieving fiscal savings would require substantial adjustments to remuneration and hiring. For example, achieving total savings of 0.5 percentage points of GDP would require freezing average remuneration in nominal terms (i.e., no negotiated wage increase) and halting new hiring for the next five years (Table 3). This illustrates the magnitude of measures that are likely required to comply with the constitutional expenditure ceiling. In State and Municipal governments, a similar adjustment would achieve savings of nearly 2 percentage points of GDP.

Containing remuneration growth. The relatively high government wage premium relative to the private sector indicates room for savings without affecting service delivery (freezing average wages for about five years would be necessary to realign pay to that of the private sector). The government should consider a multiyear agreement with employees to maintain wage increases below the rate of inflation. An alternative would be to differentiate negotiated increases by performance, while maintaining the average increase under the rate of inflation. In addition, the government should review non-salary pay, including existing bonuses and allowances (*auxílios*). This should be done for the Federal government (including the legislative and judiciary) as well as the subnational governments, where the compensation structure of health care professionals should introduce incentives to increase productivity (World Bank, 2017).

Table 3. Illustrative Options to Contain the Wage Bill

	2017	2018	2019	2020	2021	2022
Federal government						
Wages and salaries spending (baseline)	2.5	2.5	2.5	2.5	2.5	2.5
Impact of freezing wages		*-0.1*	*-0.2*	*-0.3*	*-0.4*	*-0.5*
Impact of halting new hiring		*0.0*	*-0.1*	*-0.1*	*-0.1*	*-0.2*
Wage bill (after measures)		2.4	2.2	2.1	2.0	1.9
State and local governments						
Wages and salaries spending (baseline)	7.6	7.6	7.7	7.7	7.7	7.7
Impact of freezing wages		*-0.3*	*-0.6*	*-0.9*	*-1.2*	*-1.5*
Impact of halting new hiring		*-0.1*	*-0.2*	*-0.3*	*-0.4*	*-0.5*
Wages and salaries spending (baseline)		7.2	6.8	6.5	6.1	5.7

Source: IMF staff calculations.

Containing employment growth. Given employment levels do not seem to be high relative to other countries, initial efforts should be made to enhance the flexibility of the workforce. There could be some room to curtail employment growth, particularly for low-skilled individuals in the Federal government where one third of employment comprises clerical positions. Nevertheless, any reduction in hiring should be targeted to entities and positions with identified overemployment, supported by measures to allow relocation across the different entities of the Federal government. In State and Municipal governments—where most of the growth in employment has occurred in the past decade (World Bank, 2017)—any employment adjustments would need be targeted carefully to ensure adequate service delivery. For example, in education, attrition based policies should target school districts with relatively low student-to-teacher ratios (World Bank, 2017).

In the medium-term, it is necessary to rethink the compensation structure. Structural adjustments require a review of the legal framework that regulates pay and employment (Box 3). Looking ahead, it seems imperative to simplify the multiple wage grids, starting by merging careers for which wage structures overlap. Wages should be gradually realigned with the private sector, particularly for low-skilled individuals, for which the wage premium is the highest. The seniority increases should be eliminated or greatly reduced (an average increase of 3 percent per year for seniority is excessive in an environment of 4 percent inflation), linking them to performance and job responsibility. However, structural reforms to the wage structure will take time and carry risks, —unifying salary structures tends to push personnel costs up; in a transition, setting different compensation levels for the same job can complicate human resource management; legal risks can mitigate savings—thus should be considered carefully. Performance-related bonuses should allow for better differentiation of employees and could be based on numerical limits for employees in each performance category. There may also be scope for improving wage composition and transparency by limiting the number and size of allowances, including by setting a limit on the weight of these in total remuneration by individual and entity. A review of employment and compensation in the judiciary could be considered, in light of the high wage bill, but needs to satisfy the peculiarities imposed by the legal framework and ensure continued trust in the system (Box 4).

Box 3. Legislative Changes in Support of Wage Bill Reform

Minimum wage rule – the minimum wage is the lower bound for Brazilian formal sector, but the Constitution allows States to establish a wage floor above the national level. The new minimum wage formula will be reviewed in 2019 and amendments can be done through an ordinary law. Preserving the purchasing power of the minimum wage is the main constitutional restriction. An option to condition real gains in the minimum wage to a productivity parameter is under discussion.

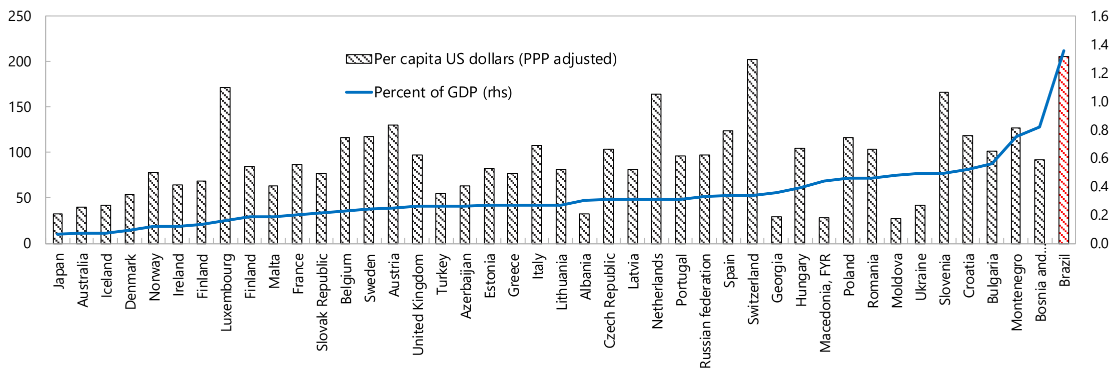
Nominal wage rigidity – while the constitution does not allow to adjust nominal wages downward there is some leeway: it is possible to adjust wages if the negotiation is made through an agreement. For public employees, however, the Public Servants' Law does not leave room for this interpretation. In 2017, The Federal government attempted to circumvent this rigidity by increasing the pension contribution of civil servants to 14 percent and by allowing the decrease of salaries through a reduction of working hours. However, the first measure was invalidated by the Supreme Court while the second was not approved by the Congress.

Employment flexibility – in practice it is very difficult to fire a civil servant, who becomes permanently employed after three years of service. Reduction of personnel, including permanent ones, is however envisaged if the wage bill rule is breached. This rule has not been binding at the FG level (Appendix, Table 1). More importantly, reallocation of civil servants across ministries and careers is overly regulated, subject to approval and conditioned upon strict comparability of tasks and competencies which hinders employment flexibility and prevents restructuring of ministries.

Career progression rules – Over 130 careers with different progression rules in the executive make the system excessively complex and hindering reallocation. Entry level salaries define subsequent adjustments that are carried across ministries. At the Federal level, the progression pace ranges from 12 months to 18 months. Reform of careers can be tackled by altering legal texts via ordinary law or decree and the Ministry of Planning is currently working on this. Changes should be coordinated across the judiciary, executive and legislative powers. There is considerable more uncertainty and complexity at the subnational level (See Table 2 in Appendix).

Box 4. Judiciary Wage Bill[1]

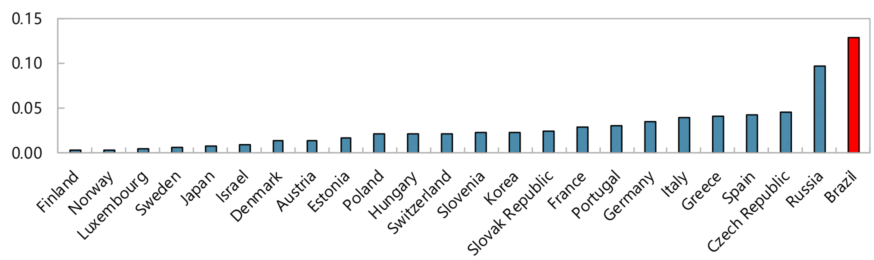
The wage bill of the judiciary is relatively high in international comparisons. Brazil's judiciary budget was close to 1.4 percent of GDP in 2016 and almost 90 percent of the budget is represented by spending on wages, salaries, allowances and other forms of compensation of judges, and other civil servants employed in the judiciary, against a smaller share in other countries. Brazil spends in the judiciary more than any other country in Europe as percent of GDP and in per capita terms adjusted for PPP.



The high level of employment and wages seem to explain the high wage bill. At about 8 per 100,000 population, the number of judges is not excessive in international comparisons (Da Ros, 2015). However, they represent only 4 percent of total employment in the judiciary: other civil servants are over 200 per 100,000, much above international benchmarks. Average wages in the judiciary are 5 times higher than average public-sector wages, and almost 9 times higher than private sector wages. Wages of judges can range between 25,000 *reais* and 65,000 *reais* per month.

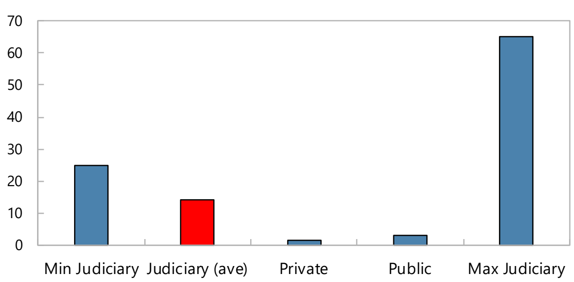
What keeps the judiciary wage bill high? Article 99 of the constitution grants administrative and financial autonomy to the judiciary, including in issues related to personnel and pay. Judiciary workers are covered by the remuneration cap (set by Article 37 of the constitution equal to the salary of a Supreme Court judge). However, the cap excludes some forms of compensation. For example, housing allowances awarded to Federal judges are excluded from the cap. The relatively high level of employment might reflect the legal framework with ample and slow litigation, which needs to be supported by numerous judges, public lawyers, analysts, and support staff. Importantly, the need to fight corruption and maintain public confidence in the legal system in Brazil may warrant a sizeable and well-paid judiciary.

Per Capita Litigation Rate [1]



[1] Flow of new civil litigation cases in a year to population. Source OECD (2013); and Justca em Numeros, 2017.

Average Monthly Wages
(thousands of reais)



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[1] Sources: Justiça em Números, 2017; European Commission for the Efficiency of Justice (CEPEJ) 2017; and OECD (2013). The numbers for Brazil include spending on wages for outsourced services.

Particularly for State and Municipal governments, long-term workforce planning should reflect demographic developments. Assuming a constant ratio of public employment in total population as in the 2015 PNAD, and population aging as projected in national statistics (IBGE), the ratio of teachers to students through tertiary education will grow from 38 per 1,000 students in 2016 to 44 per 1,000 students over the next decade. To maintain a constant ratio of teachers to student-age population over this period, the teachers' population would have to decline by about 10 percent of total employment in education (nearly 250,000 teachers). Estimated savings on the wage bill from such a decrease are in the order of 0.15 percent of GDP and, given the retirement profile of teachers, could be achieved easily through attrition.[3]

F. Conclusions

Brazil's public-sector wage bill is high internationally, and compresses the space that could otherwise be used to boost the notoriously very low public spending on investment. Lowering the wage bill is imperative to comply with the Federal government expenditure ceiling. As public-sector employees are a share of population that is relatively well-off curtailing wage growth would also be equitable. A reform should include subnational governments where most of the public employment is concentrated and where the wage bill has grown more pronouncedly in recent years. However, a possible negative impact on poverty in some smaller States should be mitigated, and the social safety net preserved.

A freeze in salaries would not ensure a decline in the wage bill sufficient to comply with fiscal rules, due to generous progression rules. To contain the wage bill growth reducing real wages and shrinking employment through attrition is necessary in the short term. In the medium term, a review of the compensation structure should aim to simplify the multitude if wage grids, merge allowances into the base wage, and align public sector compensation to private wages in low-skilled professions.

In the meantime, enhancing oversight and fiscal transparency for subnational government wage bills should be pursued. Real time payroll information—such as that available in the Transparency Portal for the Federal government—should be available for subnational government employment and remuneration, following common standards. This would support monitoring of fiscal rules and inform measures needed to comply with efficiency and sustainability objectives. Moving toward a medium-term budget approach should help improve human resource management.

[3] The World Bank (2017) estimates that if all schools reached the expenditure efficiency frontier, Brazil could increase the number of students per teacher by 33 percent in primary education and by 41 percent in secondary education over the next decade, generating savings of about 0.33 percent of GDP.

Appendix Table 1. Wage Bill Rules: Spending on Personnel as a Share of Net Current Revenues

Government level	Power	Limit		
		Maximum	Prudential	Alert
Federal - 50%	Legislative	2.50	2.38	2.25
	Judiciary	6.00	5.70	5.40
	Executive	40.90	38.36	36.81
	Federal Prosecution Service	0.60	0.57	0.54
State - 60%	Legislative	3.00	2.85	2.71
	Judiciary	6.00	5.70	5.42
	Executive	49.00	46.55	44.22
	State-level Prosecution Service	2.00	1.90	1.81
Municipal - 60%	Legislative	6.00	5.70	5.42
	Executive	54.00	51.30	48.74

Appendix Table 2. Legislation Affecting the Size of the Government Wage Bill

Legal constraint on:	Description	Type of norm	Legal basis	Coverage	Expiration
Minimum wage growth					
Minimum wage rule	A nationally unified mw must preserve its purchasing power through periodic adjustments	Federal Constitution	Art. 7, IV	Private and public sector	none
Minimum wage formula	The mw is adjusted each year for the 12-month cumulitive inflation (IPCA to January 1st) plus real growth rate of two years before.	Ordinary Law	Law 13152 / 2015	Private and public sector	Set for the period 2016-19
Nominal wage rigidity					
Wage ceiling	The salary except cannot be reduced unless it is stipulated in a collective agreement	Federal Constitution	Art. 7, VI	Private and public employees	none
Wage ceiling	The expiration of the occupied position and the advantages of permanent character accrued, are irreducible.	Ordinary Law	Art. 40 of Law 8112/1990 (Public servants' Law), III	Public employees	none
Wage ceiling	The cumulative remunerations of civil servants are capped to the salary of the Supreme Court Judge. Pecuniary raises may not be computed or accumulated for purposes of granting subsequent raises.	Federal Constitution	Art. 37, XI-XIV	Public employees (all gov.t levels and careers)	none
Employment flexibility					
Hiring	Hiring in the public sector is done through a public competition and subject to verification of titles and testing	Federal Constitution	Art. 37, II	Public employees	none
	The expenditure ceiling prohibits wage increases and creation of new positions, or any change in employment structure or number that generats an increase in expenditures in case the ceiling is breached and until compliance is restored.	Federal Constitution	Transitional article 109	Federal government employment	none
	The wage bill rules prohibt wage increases, new hiring or any action increase personnel costs in case personnel expenditures breach 95 % of the limit established in the Law.	Ordinary Law	Art. 22 of Complementary Law 101/2000 (Fiscal Responsibility Law)	All government levels	none
	Art. 10. The Minister of State for Planning, Budget and Management is empowered to authorize the holding of public competitions in the organs and entities of the federal public administration except for the federal attorney, public defender, diplomats, police which are delegated to the respective ministries.	Ordinary Law	Decree 6944/2009, Art. 10	Federal government employment	none
Firing	Civil servants in open-ended positions become stable after three years of effective exercise and can lose a position by judicial decision, administrative proceeding and by means of periodic evaluation of performance provided ample defense is secured.	Federal Constitution	Art. 41 and Constitutional Amendment No. 19 of 1998	Public employees	none
	If personnel expenditure at any government levels breaches the wage bill limit established in a complementary law, the organ must reduce 20 percent of personnel spending including by exonerating servants in unstable and those in stable positions if needed.	Federal Constitution	Art. 169 and Constitutional Amendment no. 19 of 1998	Public employees	none
	Firing is justified in case of crime against public administration, adandonment of post, improperty, scandalous conduct insubordination, corruption, disclosure of secrecy, and illegal actions.	Ordinary Law	Art. 22 of Law 8112/1990 (Public servants' Law)	Public employees	none
Reallocation	Reallocation of a position is allowed within the same power with prior approval of SIPEC if it is in the interest of the administration, if it has the same duration, if duties are equivalent, if there is a link between degrees of responsibilities and complexity of activities, if the level of education and professional qualification is equivalent and attributions of the position are compatible.	Ordinary Law	Art. 37 and 93 of Law 8112/1990 (Public servants' Law); Law No. 9527 of December 10, 1997; Decree No. 4,143, of 2004; Decree No. 9.144, of 2017.	Public employees	none
Career progression					
	There are over 130 career streams setting specific rank and pay progression and allowances for government employees, defined across occupational and professional job categories. Seniority is an important determinant of earmings.	Ordinary Law	Decree 84.669/1980	Public sector (Executive power)	none
		Ordinary Law	Law 12300/2010	Public sector (Legislative power)	none
		Ordinary Law	Law 11416/2016	Public sector (Judiciary)	none

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