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The potential impact of austerity on attainment of the Sustainable Development Goals in Brazil

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ABSTRACT

In the recent decades, Brazil has outperformed comparable countries in its progress toward meeting the Millennium Development Goals. Many of these improvements have been driven by investments in health and social policies. In this article, we aim to identify potential impacts of austerity policies in Brazil on the chances of achieving the sustainable development goals (SDGs) and its consequences for population health. Austerity's anticipated impacts are assessed by analysing the change in federal spending on different budget programmes from 2014 to 2017. We collected budget data made publicly available by the Senate. Among the selected 19 programmes, only 4 had their committed budgets increased, in real terms, between 2014 and 2017. The total amount of extra money committed to these four programmes in 2017, above that committed in 2014, was small (BR$9.7 billion). Of the 15 programmes that had budget cuts in the period from 2014 to 2017, the total decrease amounted to BR$60.2 billion (US$15.3 billion). In addition to the overall large budget reduction, it is noteworthy that the largest proportional reductions were in programmes targeted at more vulnerable populations. In conclusion, it seems clear that the current austerity policies in Brazil will probably damage the population's health and increase inequities, and that the possibility of meeting SDG targets is lower in 2018 than it was in 2015.

Summary box

- While there has been considerable research into the health impacts of austerity in Europe, there has been little study of austerity within the unique South American context.
- Large spending cuts in federal budget programmes have occurred since 2014, with greater reductions for programmes targeting more vulnerable populations, and these trends are likely to result in substantial health impacts.
- Even during economic crisis, the budget for social programmes should be preserved, targeting scarce financial resources to the most needy.

INTRODUCTION

In the past decades, Brazil has outperformed comparable countries in its progress towards meeting the Millennium Development Goals.[1] Many of these improvements have been driven by investments in health and social policies.[2]

However, the onset of an economic recession in 2014 and a political response of fiscal austerity pose considerable risks and may undermine these improvements. Shortly after she was re-elected, in October 2014, president Dilma Rousseff first announced budget cuts. However, it was after her impeachment in August 2016, when Michel Temer took office, that economic reforms were approved by the National Congress, including a Constitutional Amendment which has limited federal primary expenditure for the next 20 years.

While there has been considerable research into the health impacts of austerity in Europe,[3] there has been little study of austerity within the unique South American context. Adverse impacts of austerity have been reported in the lay media and include increases in the infant mortality rate and the maternal mortality rate in 2016 after years of steady decline.[4–6] A recent report provides evidence that these austerity measures could hamper control of non-communicable diseases.[7]

In this article, we aim to identify potential impacts of austerity policies in Brazil on the chances of achieving the sustainable development goals (SDGs), set out in the Agenda 2030, which Brazil, along with 193 United Nations members, signed up to in 2015. The likely effects are assessed by analysing the change in federal spending on different budget programmes from 2014 to 2017.

We therefore mapped government programmes against their likely contribution to specific SDGs goals and then assessed expenditure (in Brazilian reais) committed to these programmes in the federal budgets for 2014, 2015, 2016, and 2017. The choice as to which government programmes to analyse was made prior to determining budgetary trends (ie, we were blinded to the outcome).

We collected budget data made publicly available by the Senate.[8] We mapped all federal government programmes whose purposes were related to 16 SDGs, based on the activities they comprise, excluding SDG 17 which concerns global partnership. We analysed the evolution, year-on-year, of the expenditure committed to each programme. Monetary values were adjusted by the official inflation index of Brazil (IPCA).

Committed expenses are the values that the public body reserves to make planned payments, which occur after the signing of a service contract. While paid expenses may be a more accurate indicator of government spending, it is often the case that expenses incurred in 1 year are only paid the following year, preventing comparison over time.

No patients were involved in this study.

FISCAL AUSTERITY, 19 FEDERAL PROGRAMMES AND 16 SDGS

Table 1 presents the committed expenditure for all of the budget programmes, identified by their official names and the SDGs they relate to. In total, we selected 19 programmes that accounted for BR$1316.97 trillion from 2014 to 2017, corresponding to US$397.68 billion, based on the exchange rate of 31 December 2017. These programmes represented 11.9% of the committed budget of the federal government during this period with a value of BR$11 104.00 trillion (US$3581.41 trillion).

In the 2014–2017 period, the two largest federal government expenses were public debt service, at a cost of BR$4238.71 trillion (38.2% of total committed budget), and social security, worth BR$2510.37 trillion (22.6%). Observing trends, there was a 11% real term reduction in the total budget, whereas the decrease in the 19 selected budget programmes was 15%. The social security budget had an increase of 6% and the public debt service, a reduction of 25%.

To estimate the potential impact of fiscal austerity on SDG 1—*End poverty in all its forms everywhere*, we selected two budget programmes: the ‘Bolsa Família’ Programme (BFP) and the ‘Strengthening of the Unified Social Assistance System (SUAS)’.

The first programme has been an effective strategy for poverty reduction.[9] Looking at the BFP’s budget trend, we see that, in 2014, the committed expenditure totalled BR$33.4 billion, and, since then, it fell each year, reaching BR$28.3 billion in 2017, a reduction of 15.3%.

The SUAS provides benefit payments to persons aged 65 years and over and to disabled persons, whose monthly family *per capita* income does not exceed one quarter of the minimum wage in both groups. Between 2014 and 2017, SUAS’s committed expenditure grew from BR$44.9 billion to BR$53.1 billion, an 18.3% increase. Two factors may help explain this growth: federal legislation requires readjustment of this benefit whenever the minimum wage increases and the number of beneficiaries probably grew because of the economic crisis itself.

While ‘Bolsa Família’ Programme benefits all poor people, SUAS benefits only the poor who are elderly or disabled. This means that raising the budget of the latter does not compensate for the reduction of the former. Budget reduction of the BFP is likely to lead to reductions in coverage and therefore to an increase in poverty rates, making it more difficult for Brazil to achieve an end to poverty by 2030.

To analyse the impact of fiscal austerity on SDG 2—*End hunger, achieve food security and improved nutrition and promote sustainable agriculture*, we chose the ‘Family Farming’ budget programme. Between 2014 and 2016, this programme’s spending increased, but, in 2017, the budget had decreased to BR$5.0 billion, from BR$8.1 billion in 2016. The overall reduction from 2014 to 2017 was 24.2%.

According to data from the 2006 Agricultural Census,[10] the most recent available, family farming accounted for 35% of the Brazilian gross domestic product (GDP) and employed 40% of the economically active population. Target 2.3 of SDG 2 refers to a doubling, by 2030, of the agricultural productivity and incomes of small-scale food producers. Reductions in the ‘Family Farming’ may mean that Brazil is unlikely to reach this target.

We chose the budget programme ‘Unified Health System’s (SUS) Improvement’ to analyse the impact of fiscal austerity on SDG 3—*Ensure healthy lives and promote well-being for all at all ages*. This budget programme represents all of the Ministry of Health contribution to the financing of the public healthcare system. Most of the budget (63%) is transferred to states and municipalities, whereas only 37% is spent on federal healthcare services. In 2017, half of the total budget (48.3%) was spent on hospital and specialised care, 19% on primary care, 9.4% in pharmaceuticals and the remaining 23.3% on 21 different budget functions.

Looking at the budget trend from 2014 to 2017, we see a small increase of 1% between the beginning and the end of the period. To understand this budget trend, it is important to note that since 2001 the federal government must maintain a minimum floor of health spending which was defined as the amount spent in the previous year, corrected for the variation in GDP. In 2015, the National Congress established a new way of calculating the minimum floor, based on the liquid current revenue (LCR). This reduced the total amount of SUS expenditure and introduced the mandatory payment of any parliamentary amendment to the federal budget, thereby increasing the chance of inadequate budget allocation compared with health system needs. In 2016, another Constitutional amendment established that the annual ceiling for the growth of overall government spending for the next 20 years would be equal to the inflation index

Table 1 SDGs and budget evolution of federal government programmes, adjusted for inflation, for Brazil, 2014–2017

SDGs	Federal government programmes	Budget (R$ billion) 2014	2015	2016	2017	Variation (%) 2014–2017
Goal 1. End poverty in all its form everywhere	'Bolsa Família': a conditional income transfer programme for low-income households	33.40	32.30	29.80	28.30	–15.3
	Strengthening of the Unified Social Assistance System (SUAS): benefit payments to the elderly and disabled poor	44.9	49.2	50.9	53.1	18.3
Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture	Family Farming: financial and technical support to small-scale farmers	6.60	6.60	8.10	5.00	–24.2
Goal 3. Ensure healthy lives and promote well-being for all at all ages	SUS's Improvement: investment in healthcare services in the publicly funded system	101.0	104.1	100.0	102.0	1.0
	Crack, Alcohol and Other Drugs: prevention and treatment of substance abuse	0.240	0.176	0.106	0.094	–60.7
Goal 4. Ensure inclusive and equitable quality education	Education: investment in educational public establishments	62.20	56.90	48.10	43.10	–30.6
Goal 5. Achieve gender equality and empower all women and girls	Policies for Women: provision of service centres for women experiencing domestic violence	0.141	0.141	0.074	0.051	–63.5
Goal 6. Ensure availability and sustainable management of water and sanitation for all	Basic Sanitation: services and operational facilities for sewage treatment, urban cleaning and solid waste management	2.20	1.50	1.30	1.90	–14.7
	Water Resources: reducing water wastage and protection of water resources	4.10	2.70	3.20	2.00	–52.3
Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all	Electrical Energy: generation, transmission and distribution of electrical energy	0.271	1.08	0.905	0.966	257
Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment	Labour, Employment and Income: support for the unemployed, labour inspection and promotion of decent work	66.20	57.00	59.60	54.60	–17.5
Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation	Science, Technology and Innovation: promotion of research, development and technological innovation	6.30	5.00	3.10	3.00	–52.4
Goal 10. Reduce inequality within and among countries	Confronting Racism and Promoting Racial Equality: technical assistance to rural black communities, promotion of the Afro-Brazilian culture and implementation of racial quotas in universities and public service	0.050	0.034	0.021	0.010	–80.0
Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable	Decent Housing: construction of affordable houses for low-income households	21,10	19,80	7,50	3,70	–82.4
Goal 12. Ensure sustainable consumption and production patterns	Food and Nutrition Security: food production, distribution and promotion of healthy food	3.70	1.20	0.908	0.569	–84.6

Continued

Table 1 Continued

SDGs	Federal government programmes	Budget (R$ billion)				Variation (%)
		2014	2015	2016	2017	2014–2017
Goal 13. Take urgent action to combat climate change and its impacts	Climate Change: reduction of pollutants' emission from public transport and adoption of renewable energy systems	0.498	0.456	0.461	0.085	−82.7
Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development	Sea, Coastal Zone and Antarctica: promotion of the sustainable use of the resources of the sea and research on the Antarctic continent	0.019	0.061	0.153	0.037	92.0
Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems	Conservation and Sustainable Use of Biodiversity: conservation, monitoring, sustainable use and recovery of endangered, rare or sensitive species	0.334	0.327	0.306	0.301	−9.97
Goal 16. Promote peaceful and inclusive societies	Justice, Citizenship and Public Security: prevention and control of violence and crime	3.20	2.50	3.60	2.50	−21.6

SDGs, sustainable development goals.

of the previous year, excluding money for the servicing debt.

Thus, although in the 2014–2017 period there was no reduction of the health budget, a decrease, as proportion of the GDP or the LCR, for future years is anticipated. We may also expect an intensification in the demand for publicly funded health services, as increased poverty results in more people becoming ill and many losing their private health insurance. Consequently, *per capita* expenditures for this programme are likely to be lower.

When disaggregating the 'SUS's Improvement' programme, we found a subprogramme that had a large expenditure cut. Spending on activities aimed at the prevention of drug abuse and treatment of drug users declined consistently, falling 60.7% between in 2014 and 2017. This may mean that SDG 3 target 3.5 'strengthen the prevention and treatment of substance abuse' becomes unattainable.

With probable budget reductions in terms of proportion of the GDP or *per capita* spending on publicly funded healthcare and an absolute reduction in drugs-related initiatives, Brazil will likely experience difficulty in reaching SDG 3.

To analyse the impact of fiscal austerity on SDG 4—*Ensure inclusive and equitable quality education*, we focused on the 'Education' programme. It is important to mention that the federal government is mainly responsible for the University education, whereas the municipalities and the states are mainly responsible for financing the elementary and the high school. Therefore, in 2017, 79% of the 'Education'—a federal programme—was spent directly on federal educational services, and 21% were transferred to municipalities (13.8%) and states (7.2%). Personnel was responsible for 40% of the committed budget, which includes professors' salaries at federal universities and institutes.

The budget committed a consistent decrease over time, reaching BR$43.1 billion in 2017, a reduction of 30.6% from 2014. Many services at the federal, state, and municipal levels are therefore likely to underfunded, making it difficult to Brazil to achieve SDG 4.

To anticipate the effect of austerity on SDG 5—*Achieve gender equality and empower all women and girls*, we considered the 'Policies for Women' programme, which provides funds to service centres for women experiencing domestic violence. Between 2014 and 2017, this programme had a 63.5% decrease in its committed budget. Although it was never a large programme, by 2017 it had become a very small one.

Two budget programmes were chosen to evaluate the impact of fiscal austerity on SDG 6—*Ensure availability and sustainable management of water and sanitation for all*: 'Basic Sanitation' and 'Water Resources'. For the first of these, the committed budget in 2017 was higher than the budgets of two previous years, but it was 14.7% below the 2014 budget, a reduction from BR$2.2 to BR$1.9 billion. For the second programme, the budget decreased 52.3% between 2014 and 2017.

Unless investment in these programme is significantly increased over upcoming years, it is unlikely SDG 6 will be achieved.

To analyse the potential effect of fiscal austerity on SDG 7—*Ensure access to affordable, reliable, sustainable and modern energy for all*, we chose the 'Electrical energy' programme, which funds the expansion of electric power transmission, and incentivises the generation of renewable electricity. We see that the committed budget had a substantial increase between 2014 and 2015, due to the transfer of credits that the federal government holds with Itaipu Binational, a Brazilian and Paraguayan public company that generates hydroelectric power, and then stabilised around BR$950 million. Between 2014 and 2017, the budget grew 257%, which may help the country to achieve SDG 7.

We selected the 'Labor, Employment and Income' budget programme—that includes microcredit provision, labour conditions inspection and promotion of decent work—to assess the potential effect of fiscal austerity on SDG 8—*Promote sustained, inclusive and sustainable economic growth, full and productive employment*. We find a decrease of 17.5% between 2014 and 2017, from BR$66.2 billion to BR$54.6 billion. Unless this trend is reversed, achievement of SDG 8 becomes less likely.

To study fiscal austerity's potential effect on SDG 9—*Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation*, we chose the 'Science, Technology and Innovation' programme, which is closely related to target 9.5: *Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries* (…). This programme finances research and development projects, subsidises innovative companies and supports human resources training in science and technology, especially through governmental agencies such as the National Council for Scientific and Technological Development. Looking at the budget trend, we observe a decrease of 53% between 2014 and 2017, from BR$6.3 billion to RBR$3.0 billion, making achievement of SDG 9 more challenging.

We could assess the potential effect of fiscal austerity on attainment of SDG 10—*Reduce inequality within and among countries*, by analysing different budget programmes. Considering that racial inequalities are prominent in Brazil, we chose the 'Confronting Racism and Promoting Racial Equality' budget programme. Between 2014 and 2017, this programme lost 80% of its committed budget, decreasing from BR$50.3 million to BR$10.4 million. This fall makes achievement of SDG 10 difficult.

SDG 11—*Make cities and human settlements inclusive, safe, resilient and sustainable* has seven targets, the first being to ensure access for all to adequate, safe and affordable housing and basic services. Therefore, we chose the 'Decent Housing' programme, which has financed the construction of affordable houses, to analyse the impact of austerity on SDG 11. The programme's committed budget decreased 82.4% between 2014 and 2017, going from BR$21.1 billion to BR$3.7 billion. Continuing like this, Brazil will probably not achieve SDG 11.

We selected the 'Food and Nutrition Security' programme to estimate the potential effect of fiscal austerity on SDG 12—*Ensure sustainable consumption and production patterns* and we note a sharp decline (84.6%) in the budget, between 2014 and 2017, from BR$3.7 billion to BR$0.57 billion. This programme comprises actions aimed at implementing support for food production and at providing equipment such as food banks, popular restaurants and community kitchens. Education actions, related to the prevention of obesity, food and nutritional surveillance and the promotion of healthy food are also supported. If the downward trend in its budget is not reverted, Brazil will be less likely to achieve SDG 12 by 2030.

The 'Climate Change' budget programme is consistent with SDG 13—*Take urgent action to combat climate change and its impacts*. This programme finances projects aimed at reducing the emission of pollutants in public transport and at encouraging the adoption of renewable energy systems. This programme had a committed budget around BR$472 million from 2014 until 2016, and then had a large decrease in 2017, when only RBR$ 85.9 million were committed. Over the 4-year period, the reduction was therefore 82.7%. The amount allocated in this programme makes it unlikely that Brazil will achieve the SDG 13.

We chose the 'Sea, Coastal Zone and Antarctica' programme, whose goals include promoting the sustainable use of resources of the sea and research on the Antarctic continent, to analyse the impact of fiscal austerity on SDG 14—*Conserve and sustainably use the oceans, seas and marine resources for sustainable development*. Its committed budget had a huge increase between 2014 and 2016, from BR$19.3 million to BR$153.1 million, but, then, had a substantial decrease to BR$37.1 million in 2017. In other words, although there was a decrease between 2016 and 2017, the budget in 2017 was 92% higher than it had been in 2014 and, therefore, Brazil had an improved chance of achieving SDG 14 in 2017 compared with the situation in 2014.

The 'Conservation and Sustainable Use of Biodiversity' programme was selected to analyse the potential impact of fiscal austerity on SDG 15—*Protect, restore and promote sustainable use of terrestrial ecosystems*. This programme comprises the conservation, monitoring, promotion of sustainable use and recovery of endangered, rare or sensitive species. Regarding the committed budget trend, we observe a decrease of 9.9% between 2014 and 2017, going from BR$334.2 to BR$300.9. Even in 2014 the budget was probably insufficient; this downward trend, if not reversed, makes SDG 15 look unachievable.

Finally, to analyse the potential effect of fiscal austerity on SDG 16—*Promote peaceful and inclusive societies*, we considered the 'Justice, citizenship and public security' programme, whose goals include: (1) to strengthen the fight against crime; (2) to promote the reduction of homicides; (3) to address corruption in the Federal Public Administration and (4) to promote a fair criminal justice system. Although we see a reduction of 21.6% between the 2014 and the 2017 budgets, the oscillation in the committed budget over the 4-year period is noteworthy, which makes it difficult to determine the direction of the trend. However, no policy can be adequately implemented if a long-term oscillation persists. As a consequence, some scepticism might be warranted about the possibility of Brazil achieving SDG 16.

CONCLUSION

Among the selected 19 programmes, only 4 had their committed budgets increased between 2014 and 2017: 'Social Assistance (SUAS)', 'Electrical Energy'; 'Sea, Coastal Zone and Antarctica' and, in tiny proportion due to the existence of previous legal order that mandates minimum expenditure on health, 'SUS's Improvement'. Fifteen programmes had their budgets reduced. The total amount of extra money committed to these four programmes in 2017, above that committed in 2014, was small, only BR$9.7 billion.

In contrast, there were marked differences in programme size among the 15 programmes that had budget cuts in the period. Large programmes, with committed budgets totalling over BR$15 billion in 2014, included 'Bolsa-Família', 'Education' and 'Decent Housing'. There were also medium-sized programme, with budgets between BR$1 billion and BR$15 billion, such as 'Family Farming' and small programmes including 'Promoting Racial Equality'; 'Climate Change' and 'Conservation and Sustainable Use of Biodiversity'. Comparing the committed budgets of these 15 programmes in 2014 and in 2017, the total decrease amounted to BR$60.2 billion.

Apart from the fact that the budget reduction hit many programmes and represented a large amount of money, we should emphasise that the largest proportional reductions were in programmes that targeted more vulnerable populations. In fact, the largest cuts fell on programmes as 'Food and Nutrition Security' (a decrease of 85%), 'Decent Housing' (82%); 'Confronting Racism and Promoting Racial Equality' (79%) and 'Policies for Women' (64%).

Brazil is one of the most unequal countries in the world.[11] Inequalities manifest themselves across different dimensions: income and wealth, gender and race, access to goods and services, as well as regional and urban–rural inequalities. Addressing this problem should arguably be a priority in Brazil, but instead, as our study shows, measures are being taken that are likely to increase inequalities. Indeed, there is a risk that fiscal austerity measures will promote an economy that further benefits the most advantaged in society to the detriment of the poor, black, women, rural and northern Brazilians.

Some limitations of this study should be noted. First, although we have scrutinised the budgetary data carefully, it is possible that programmes that should have been included were not included. Second, while our choice for the committed expenses allowed the comparison year-on-year, sometimes they differ from the budget actually spent. Third, our study does not take into account that there is elasticity in the relationship between spending and outputs; efficiencies can occur and so may not translate directly into reductions in programme effectiveness.

Ultimately, it seems clear that the current austerity policies in Brazil will probably damage the population's health and increase health inequalities, an assessment that aligns with expert opinion.[12] This means that the possibility of meeting SDG targets is lower in 2018 than it was in 2015, when the United Nations 2030 Agenda was signed by Brazil and many other countries.

We should add that many programmes have spillover effects and affect multiple SDGs, so effects are likely to be far-reaching and extend across different goals. This implies that the negative effects of austerity may be more widespread than our analysis focused in specific programmes indicates, potentially leading to even greater adverse impacts than we suggest.

In relation to advancing knowledge, the rapid reduction in expenditure of many Brazilian government programmes may provide an opportunity to assess the effectiveness of these programmes in low/middle-income countries.[13]

Contributors All coauthors have made substantial contributions to the conception and design of the work, as well as to the analysis and interpretation of data. LEPFdS and RDdB were responsible for the acquisition of data and for drafting the work. All coauthors revised the work critically for important intellectual content and approved the version to be published. Everyone agrees to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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