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Articles

A UNIVERSAL BASIC INCOME FOR BRAZIL: FISCAL AND DISTRIBUTIONAL EFFECTS OF ALTERNATIVE SCHEMES

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ABSTRACT: The Covid-19 pandemic outbreak has led to an increasing interest in universal basic income (UBI) proposals, as it exposed the inadequacy of traditional welfare systems to provide basic financial security to a large share of the population. In this paper, we use a static tax-benefit microsimulation model to analyse the fiscal and distributional effects of the hypothetical implementation in Brazil of alternative UBI schemes that partially replace the existing tax-transfer system. The results indicate that introducing a UBI/Flat Tax system in the country could be both extremely effective in reducing poverty and inequality and economically viable.

KEYWORDS: Universal basic income; inequality; poverty; microsimulation.

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UMA RENDA BÁSICA UNIVERSAL PARA O BRASIL: EFEITOS FISCAIS E DISTRIBUTIVOS DE ESQUEMAS AALTERNATIVOS

RESUMO: O surto da pandemia da Covid-19 levou a um crescente interesse em propostas de renda básica universal (*universal basic income* – UBI), pois expôs a inadequação dos sistemas tradicionais de bem-estar para fornecer segurança financeira básica a uma grande parcela da população. Neste artigo, utilizamos um modelo estático de microsimulação de tributos e benefícios sociais para analisar os efeitos fiscais e distributivos da hipotética implementação no Brasil de esquemas alternativos de UBI que substituem parcialmente o sistema de transferências e de impostos existente. Os resultados indicam que a introdução de um sistema de UBI/Imposto Uniforme no país poderia ser extremamente eficaz na redução da pobreza e desigualdade e economicamente viável.

PALAVRAS-CHAVE: Renda básica universal; desigualdade; pobreza; microssimulação.

INTRODUCTION

Over the past few years, interest in universal basic income (UBI) proposals has grown enormously across the world. Gentilini, Grosh, and Yemtsov (2020), in a chapter of a book on UBI published by the World Bank, remark that over the last decade alone 91 books were published on the subject, and several pilot programs were implemented around the world. More recently, the Covid19 pandemic outbreak substantially increased the interest on UBI proposals, as it exposed the inadequacy of traditional welfare systems to provide financial security to large segments of the labour market, particularly self-employed workers, and small business.

A UBI is usually conceived of as a regular fixed amount of money provided by the state to every citizen, regardless of income level, employment status, or any other conditionality. The only limiting condition permitted would be the recipient's age. The notion dates back to the 18th century and was introduced by Thomas Paine (1797). In the second half of the last century, interest in the idea was renewed with Buchanan (1960, 1967), Friedman (1962), and Tobin, Pechman and Mieszkoeski (1967). In the 1990's a new wave of academic work on UBI was initiated with key authors such as Van Parijs (1992), Meade (1993), and Atkinson (1995).[1]

The upsurge of interest in UBI proposals in the last decade emerged initially in advanced countries, motivated to a great extent by the growing inequality and rising job insecurity associated with technological progress (particularly automation) and globalization. But proposals also proliferated among developing countries, where the limitations of the existing social protection systems to reduce extreme poverty and inequality tend to figure prominently among the motivations for implementing a UBI.[2]

With the Covid-19 pandemic, awareness of the fundamental role that a UBI may have in such a context is increasing among both developed and developing countries. As a response to the dramatic negative impact of the pandemic on the economic circumstances of households, several countries have enacted emergency cash transfer programs. In Brazil, more than 70 million individuals, corresponding to more than 40% of the working age population, have applied to receive the emergency cash benefit created by the federal government to mitigate the effects of household impoverishment during the pandemic crises.

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[1] For a full review of the origin, developments, and key issues concerning UBI, see Van Parijs and Vanderborght (2017) and Gentilini, Grosh, and Yemtsov (2020).

[2] Hoynes and Rothstein (2019) discuss the implementation of UBI in advanced countries, whereas Banerjee, Niehaus, and Suri (2019) discuss UBI in the context of developing countries.

Notwithstanding the existence, since 2004, of a law which establishes the progressive implementation of a UBI in the country, the so-called Lei de Renda Básica de Cidadania (Citizen's Basic Income Law), no movement had been made in this direction until the coronavirus pandemic. This law was proposed by Eduardo Suplicy, a federal senator in the Brazilian parliament from 1991 to 2015, who has campaigned for the introduction of a UBI in Brazil since the early 1990s.[3] However, since the enactment of the law till recently, the political debate on the subject had faded. A major reason for this is the belief that a UBI is not fiscally sustainable in the long run and that the existing conditional cash transfer programs are more adequate to fight poverty and redistribute income.[4]

This study aims to use a static tax-benefit microsimulation model to analyse the fiscal and distributional implications of the hypothetical implementation in Brazil of three alternative UBI schemes that partially replace the existing tax-transfer system. Two of the schemes considered are versions of the so-called 'basic income/flat tax proposal,' which combines a universal transfer with a single-rate tax on all other incomes. The third scheme allows for a progressive tax structure.

Given the inequitable and fragmented nature of the Brazilian social protection system, a move to a UBI could be expected to improve welfare. Despite a high level of spending on social protection, Brazil is one of the most unequal countries in the world and extreme poverty is still widespread, particularly among children. A study published by the Brazilian Ministry of Finance (BRASIL, 2017) reports, for instance, that in 2015 public cash transfers represented 23% of total household income, but the absolute amount paid to the richest 20% of the population was ten times as high as that paid to the 20% poorest.[5] To a great extent this reflects the country's highly dualistic benefit structure, with generous pension regimes and relatively low provisions to poor families with children.

In this context, a UBI reform has the potential to deliver significant equity improvements at a sustainable financial cost, since the government can (in principle) offset a substantial proportion of UBI's gross cost by adjusting existing benefits' levels downwards. Additionally, UBI schemes such as those considered in this study have some advantages over the current tax-transfer system, which are related to their universal, simple, and transparent nature. This includes the reduction in bureaucratic costs and the minimization of opportunities for manipulation of the system by vested interests, as well as the promotion of a sense of citizenship and social cohesion.

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[3] Suplicy (2013) describes the author's proposal and engagement for a UBI in Brazil.

[4] For a more detailed discussion of issues preventing the practical implementation of the *Lei de Renda Básica de Cidadania*, see Lavinas (2013).

[5] In OECD countries, according to the Ministry of Finance (BRASIL, 2017), public transfers account for around 21% in average of total household income.

To the best of our knowledge, five studies estimate the distributional effects of implementing a UBI in Brazil: Siqueira (2001), International Monetary Fund (2017), Rigolini et al. (2020), Amaral (2021), and Paiva et al. (2021). However, IMF (2017) and Paiva et al. (2021) do not consider any compensating scheme to make the UBI reform revenue neutral, and neither of the mentioned studies allows for changes in the current transfer or tax systems. In this case, reported fiscal and distributional effects can significantly diverge from those derived from a more comprehensive approach which considers the introduction of a UBI along with reforming the existing tax and transfer systems.

The structure of the paper is as follows. Section 1 outlines the details of the alternative UBI systems simulated in this study and briefly describes the simulation method. Section 2 examines the fiscal implications of the reforms. Section 3 analyzes the distributional effects of each reform. Section 4 states the conclusions.

1. UBI SCHEMES ANALYSED AND METHOD

As mentioned, three hypothetical UBI schemes have been simulated. The first scheme considered (Scheme 1) combines a uniform payment of a basic income to every individual in society with a flat rate income tax on all other incomes, from the first real. Such a system, usually referred to in the literature as 'basic income/flat tax proposal' (see ATKINSON, 1995), is equivalent in terms of distributional impact to the Negative Income Tax (NIT) proposed by Milton Friedman (1962).[6]

In our simulations, existing (contributory and non-contributory) pension benefits are reduced by the amount of the basic income and all other cash benefits are totally replaced by the basic income. On the revenue side of the budget, the current personal income tax and employee social security contributions are abolished. The rate of the new income tax is calculated to ensure that the reform is 'budget neutral,' in the sense that increases in net spending are matched by increases in (net) tax revenue, to not exacerbate the budget deficit.

Some advocates of UBI believe the benefit level should be set at an amount large enough to ensure a basic level of income security for everyone, including those without any other source of income. The national poverty line and the median income are often taken as references. In our simulations, the UBI is set at the level of the poverty line

[6] The two schemes differ in their implementation. Under the NIT most individuals receive part or the whole of the basic income grant in the form of tax exemptions.

suggested by the World Bank for upper-middle-income countries, which is US$ 5.50 a day. This was equivalent to 51% of the Brazilian per capita median disposable income in 2017 (our reference year).[7]

The second scheme simulated differs from Scheme 1 in that the level of the basic income varies according to the age of the recipient: a standard amount equal to the poverty line is paid to working age adults (18-64 years), half this amount is the basic income paid to children (under 18 years), and double the standard amount is paid to elderly people (65 and over).[8] The basic idea here is to enhance fiscal and political feasibility with respect to Scheme 1, since under Scheme 2 the net cost of UBI is expected to be lower, particularly to pensioners. By its turn, the third scheme considered differs from Scheme 2 in that the income tax has a lower marginal rate on incomes below a certain threshold. This lower rate is set at 20% and it is applied on income levels that are lower than twice the median per capita household gross income.[9]

All simulations are performed using a static tax-benefit microsimulation model, Brazilian Household Microsimulation System (BRAHMS), specially built to incorporate key features of the Brazilian tax-benefit system.[10] A microsimulation model is a computational programme that calculates tax paid, and transfers received by individuals/households in a nationally representative sample of the population. It does so by applying the tax-benefit's legal rules on each individual and household in the micro data set, considering personal and household characteristics and the interaction among the many different policy instruments built into the tax-benefit system. As the model is static, the simulations only estimate first-round effects and do not consider behavioural responses.

The version of BRAHMS used in this study is based on the household survey *Pesquisa Nacional por Amostra de Domicílios Contínua* (PNADC – Continuous National Household Sample Survey) for the year 2017[11] (IBGE, 2018). Since PNADC lacks information on taxes paid by households, these are simulated by applying the 2017 tax legislation to the data set. The same approach is used to simulate some monetary benefits which are

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[7] In 2017, this poverty line corresponded to R$ 406 per month, equivalent to 43% of the legal minimum wage, as well as of the basic pension paid by the Brazilian social security system in the same year.

[8] In 2017, 65 was the standard statutory retirement age for males in Brazil (although some regimes permitted retirement much earlier).

[9] In 2017, the monthly median per capita household gross income was R$ 850.

[10] BRAHMS is a proprietary model. For its details, see Immervoll et al. (2006).

[11] The PNADC 2017 is used because this work is one of the products associated to a research project initiated in 2019, on the general topic of "A System of Negative Taxation for Brazil: Integrating Taxes and Transfers", when the then latest available PNADC was that for 2017.

significantly underreported in the survey.[12] The aggregated results for each tax and transfer simulated are then subject to a validation procedure which involves a comparison to available official statistics. In cases of significant discrepancies between the model's simulated results and the official figures, the simulations are adjusted to better reflect the effective incidence of government programs.[13]

The basic microsimulation outcome we are concerned with is the *disposable income* of each household under the existing tax-transfer system and under each UBI reform. Changes in disposable income at the household level determine the distributional effects of the reform and, on the aggregate, they explain the impact on fiscal variables.

2. FISCAL EFFECTS

In this first section of the results, we computed some aggregates that could help to determine the financial feasibility of the previously defined UBI schemes. Table 1 shows in the first line the household initial income, that is, income before tax and government transfers. Then transfer and tax aggregates are presented, followed by household disposable income, defined as income after taxes and transfers. Table 1 also shows the income tax rates calculated as required to ensure that the reforms are budget neutral and the reduced rate in Scheme 3.

Table 1 – Budgetary effects (billions of Reais/year)

Incomes, transfers, and taxes	Current system			
	(2017)	Scheme 1	Scheme 2	Scheme 3
Initial (market) income	2,571	2,571	2,571	2,571
Current transfers	804			
Pensions	717			
Others	87			
Current tax revenue	357			
Personal income tax	192			
Employee social security contribution	165			
Current disposable income	3,018			
UBI gross cost		1,009	969	969
Reduction in current transfers		251	335	335

(*Cont.*)

[12] In fact, the only cash transfer BRAHMS takes directly from PNADC are pensions benefits. In-work benefits and assistance transfers are all simulated.

[13] More details on the essential features of the microsimulation model used in this study are provided in Immervoll et al. (2009).

Table 1 – Budgetary effects (billions of Reais/year)

Incomes, transfers, and taxes	Current system			
	(2017)	Scheme 1	Scheme 2	Scheme 3
UBI net cost		758	634	634
Tax revenue under UBI		1,115	991	991
Disposable income under UBI		3,018	3,018	3,018
Income tax rate under UBI (%)				
Flat/Standard		35.7	32.6	47.5
Reduced		-	-	20.0

Source: Authors' calculations using data from PNADC 2017 (IBGE, 2018) and BRAHMS model.

The total amount of transfers paid out by the Brazilian social security system in 2017 which are considered in this study was 804 billion reais. This corresponded to 12.2% of GDP and 26.6% of total household disposable income in that same year. Pension benefits (contributory and non-contributory) accounted for 89.2% of these cash transfers. The other (non-pension) transfers are essentially comprised of the unemployment benefit, the Bolsa Família (Family Grant) conditional cash transfer, and in-work benefits (family wage and wage bonus). Looking at the revenue aggregates, in 2017 the personal income tax and employee social security contributions together amounted to R$ 357 billion, equivalent to 5.4% of GDP and to 16.8% of total tax revenue that same year.

The gross cost of the UBI is around R$ 1 trillion (about 15% of GDP in 2017) in Scheme 1, and only slightly lower (R$ 969 billion) under Schemes 2 and 3. However, eliminating the current non-pension benefits and adjusting pensions downward offset nearly 25% of the gross cost of the UBI under Scheme 1, and nearly 35% under Schemes 2 and 3. Note that totally removing the existing benefits would enable the government to offset about 80% of the UBI gross cost. As intentioned by the microsimulation model, the total disposable income after each UBI reform matches the current disposable income.

The flat tax rates that ensure the budget neutrality of Schemes 1 and 2 are respectively 35.7% and 32.6%. These rates are lower than the marginal tax rate on some higher income individuals under the 2017 tax system, which reaches 38.5%, with both the personal income tax and employee social security contribution. However, in Scheme 3, in which we establish the rate of 20% on lower incomes, the marginal tax rate on higher incomes must be 47.5% for revenue neutrality.

Although total disposable income before and after each reform is equal, at the household level, the UBI reforms produce changes in disposable income that vary substantially across income groups, both in magnitude and direction. The resulting distributional effects are examined in the next section.

3. DISTRIBUTIONAL EFFECTS

This section shows the changes that each UBI scheme would bring about in the distribution of income by looking at poverty and inequality summary indicators and at the patterns of household gains and losses across income groups. Per capita household disposable incomes are used to derive these indicators. These distributional effects are crucial to assess the social desirability of the UBI reforms, and besides, they can shed light on political feasibility.

3.1. POVERTY AND INEQUALITY INDICATORS

Table 2 shows the head count indicator of poverty — estimated for the entire population and by age group — under the current (2017) tax-transfer system and after each alternative UBI reform. Under the existing tax-transfer system the proportion of the total population in poverty is 23.5%. However, poverty among children is much higher, at 39.7%, whereas the corresponding indicator for old age people is 3.2%. As mentioned in the introduction, this reflects the dual nature of the existing social protection system with quite generous pension regimes but relatively small transfers to low-income families with children.

Under Scheme 1, by design, poverty is eliminated, since the (non-taxable) basic income paid to every individual is set at the level of the full value of the poverty line. Scheme 2, in which the level of the basic income varies according to the age group of the recipient (100% of the poverty line to working age adults, half this amount to children, and twice the poverty line to the elderly), reduces overall poverty by nearly two thirds, and child poverty by 55.7%, while old age poverty is virtually eliminated. The impact of Scheme 3 on poverty is similar to Scheme 2, but a little more pronounced given the reduced tax rate on lower incomes. Under this scheme the poverty rate among children would fall by 62.2%.

Table 2 – Effects on poverty and inequality

Inequality and poverty indices	Current system (2017)	Scheme 1	Scheme 2	Scheme 3
% of individuals in poverty				
Total population	23.5	0.0	8.0	6.8
% reduction	-	100.0	66.0	71.1
Children (< 18)	39.7	0.0	17.6	15.0
% reduction	-	100.0	55.7	62.2
Working age (18-64)	20.5	0.0	5.5	4.7
% reduction	-	100.0	73.2	77.1
Old age (≥ 65)	3.2	0.0	0.3	0.2
% reduction	-	100.0	90.1	93.7
Gini coefficient of inequality	0.506	0.377	0.408	0.373
% reduction	-	25.5	19.4	26.3

Source: Authors' calculations using data from PNADC 2017 (IBGE, 2018) and BRAHMS model.

To summarize the potential impact of the UBI reforms on income inequality, we estimate the Gini coefficient before and after introducing each scheme.[14] The last two lines of Table 2 show that any UBI scheme simulated would deliver a substantial reduction in inequality. Under Schemes 1 and Scheme 3 the Gini coefficient would fall by 25.5% and 26.3%, respectively. Scheme 2 is the less progressive, but the estimated reduction in inequality, 19.4%, would still be pronounced. Note that, by reducing the Gini from nearly 0.51 to around 0.37, reforms 1 and 2 would bring Brazil's inequality, in terms of the Gini coefficient, much closer to the OECD average of 0.31, and on pair with the United Kingdom's 0.36 (OECD, 2017).

3.2. DISTRIBUTIONAL EFFECTS IN TERMS OF WINNERS AND LOSERS

Another way of inspecting the distributional outcomes is to define them in terms of gains and losses at the household level. Net gains occur when the UBI payment outweigh reductions in existing benefits and increased tax for a given household, and vice versa for net losses. For this exercise individuals are grouped in income deciles based on the distribution of per capita household disposable income under the current tax-transfer system.

Each table in this section shows, for a given simulated reform, the percentage of winners and losers with respect to the current (2017) scenario, current average per capita household disposable income, and average per capita gains and losses, by decile group. Note that average gains and losses are computed among losing and gaining households. This section also provides a graphical representation of the redistribution pattern associated with each reform, where average gains and losses are presented as proportion of current household disposable income.

Table 3 shows the pattern of gains and losses associated with implementing Scheme 1. Introducing Scheme 1 would uplift the incomes of virtually everyone that (under the existing social protection system) is among the poorest 40% of the population and 90% of those in the fifth income decile. The proportion of losers overcome the proportion of winners only from the seventh highest decile and higher. Overall, 64% of the population improve their situation after the introduction of Scheme 1.

Figure 1 shows the magnitude of the gains and losses more easily. The average gain in the lowest decile is close to three times as high as the current average disposable income. For the next three deciles the average gain is also substantial, equivalent to 94%, 52% and 30% of current average disposable income, respectively. On the other hand, while almost all individuals in the top two deciles are net losers, the average losses are not so high, and are around 13% in the ninth decile and around 16% in the highest decile.

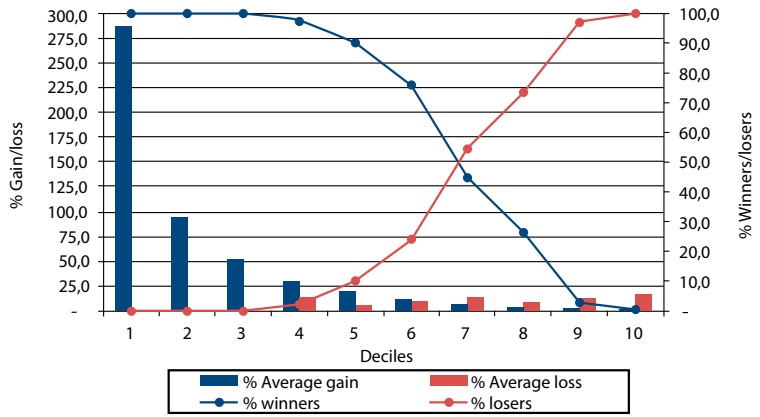
[14] The Gini coefficient is a standard measure of inequality, which varies from 0 to 1. The closer to 1 the coefficient the higher the level of inequality.

Table 3 – Percentage of winners and losers with respect to the 2017 situation, with average per capita household disposable income and average gain and loss – Scheme 1

Deciles	Winners	Baseline income	Gain	Losers	Baseline income	Loss
	%	R$/month	R$/month	%	R$/month	R$/month
1	100	119	341	0	-	-
2	100	291	273	0	-	-
3	100	430	222	0	-	-
4	98	564	168	2	558	79
5	90	716	134	10	715	41
6	76	892	99	24	921	93
7	45	1,077	65	55	1,059	149
8	27	1,307	39	73	1,381	129
9	3	1,793	45	97	1,933	255
10	1	3,260	48	99	4,776	788
All deciles	64	565	194	36	2,360	342

Source: Authors' calculations using data from PNADC 2017 (IBGE, 2018) and BRAHMS model.

Figure 1 – Percentage of winners and losers and percentage change in household disposable income, by income decile – Scheme 1



Source: Authors' calculations using data from PNADC 2017 (IBGE, 2018) and BRAHMS model.

Table 4 and Figure 2 show the results associated with Scheme 2. Although the distribution of winners and losers among income groups is very similar to Scheme 1, gains and losses are smaller in average. Yet the gains for individuals at the bottom of the income distribution are still substantial. For the poorest 10%, average disposable income more than doubles, and in the second decile the average gain is equivalent to

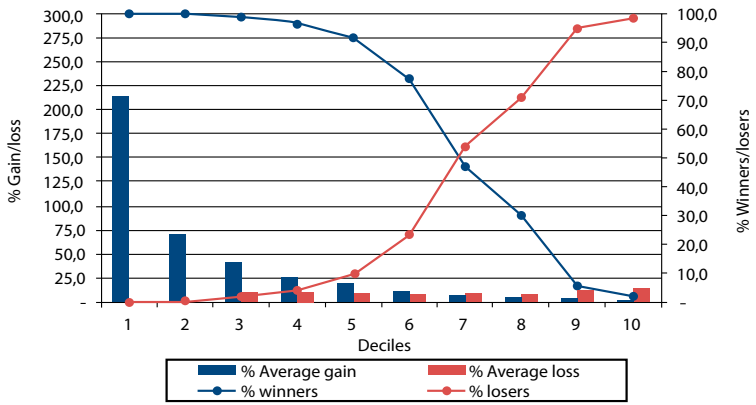
more than two thirds of the current disposable income. In the ninth and the highest deciles the average losses are even lower than in Scheme 1, respectively 11% and 13%.

Table 4 – Percentage of winners and losers with respect to the 2017 situation, with average per capita household disposable income and average gain and loss – Scheme 2

Deciles	Winners	Baseline income	Gain	Losers	Baseline income	Loss
	%	R$/month	R$/month	%	R$/month	R$/month
1	100	119	253	0	-	-
2	100	290	199	0	-	-
3	99	430	168	1	446	38
4	96	564	134	4	562	60
5	91	715	107	9	723	52
6	77	894	82	23	918	64
7	46	1,074	60	54	1,062	88
8	29	1,317	43	71	1,380	101
9	5	1,824	51	95	1,935	206
10	2	4,353	72	98	4,776	627
All deciles	65	584	147	35	2,363	269

Source: Authors' calculations using data from PNADC 2017 (IBGE, 2018) and BRAHMS model.

Figure 2 – Percentage of winners and losers and percentage change in household disposable income, by income decile – Scheme 2



Source: Authors' calculations using data from PNADC 2017 (IBGE, 2018) and a tax-benefit microsimulation model.

Table 5 and Figure 3 show that the net incomes of almost all individuals in the half bottom of the income distribution would considerably increase with the implementation of Scheme 3. The percentage of losers is above the percentage of winners only in the

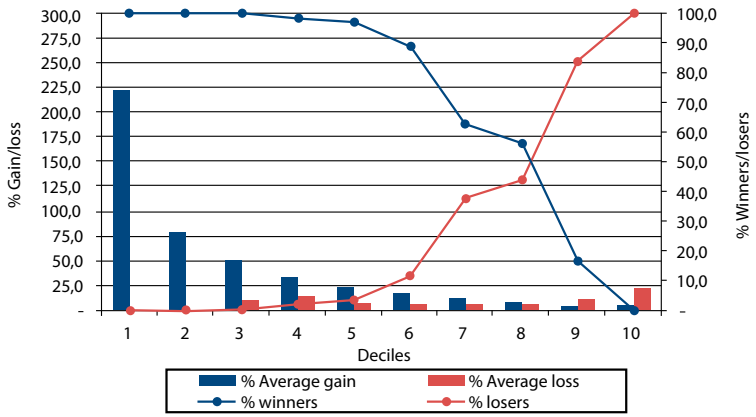
top two deciles. Overall, 72% of the population would benefit from Scheme 3, compared with 64% and 65% in Schemes 1 and 2, respectively. At the same time, the magnitude of gains and losses would be roughly the same as in Schemes 1 and 2. On the other hand, the average loss to individuals in the highest decile would increase to the equivalent of nearly 23% of current disposable income.

Table 5 – Percentage of winners and losers with respect to the 2017 situation, with average per capita household disposable income and average gain and loss – Scheme 3

Deciles	Winners	Baseline income	Gain	Losers	Baseline income	Loss
	%	R$/month	R$/month	%	R$/month	R$/month
1	100	119	263	0	-	-
2	100	290	229	0	-	-
3	99	430	212	1	442	48
4	98	565	186	2	548	76
5	96	715	168	4	727	55
6	88	895	147	12	929	58
7	63	1,077	124	37	1,051	66
8	56	1,338	105	44	1.392	92
9	16	1,769	72	84	1,960	209
10	0	2,493	123	100	4,769	1,075
All deciles	72	639	185	28	2,669	468

Source: Authors' calculations using data from PNADC 2017 (IBGE, 2018) and BRAHMS model.

Figure 3 – Percentage of winners and losers and percentage change in household disposable income, by income decile – Scheme 3



Source: Authors' calculations using data from PNADC 2017 (IBGE, 2018) and a tax-benefit microsimulation model.

CONCLUSION

In this article, we have used a static microsimulation model to analyse the fiscal and distributional effects associated with implementing alternative reforms which combine a UBI with a simplified tax structure in Brazil. We examined the impact of each hypothetical reform on poverty and inequality and looked at the distribution of winners and losers across income groups.

The results show that a UBI can be an extremely effective strategy to reduce poverty and inequality in Brazil. In fact, most people would have their incomes raised by the introduction of any of the simulated reforms, with substantial gains concentrated at the bottom of the income distribution, whereas losses would be relatively small in average and concentrated in the top income groups.

These findings indicate that the introduction of a UBI in Brazil can be welfare improving and economically viable. Thus, Brazil appears as an exception to the so-called *demand-capacity paradox* identified by UBI analysts, according to which countries where introducing a UBI would benefit the largest number of people are the countries with the most limiting fiscal conditions to implement it (see, for example, Wispelaere and Yemtsov, 2020).

Since Brazil is a democracy where political leaders are chosen by majority voting, one could also conclude that a UBI reform as simulated in this study is politically viable. However, political power or influence is not evenly distributed among potential winners and losers from such reforms. Furthermore, a UBI reform represents a radical move from the existing social protection model and would involve reviewing entrenched values and practices. Nevertheless, there is an increased perception that traditional policy tools have failed to deliver the demanded level of redistribution and social inclusion. This opens the space for a debate on alternative forms of providing a social safety net, including by a UBI.

Note that the purpose of this article was to investigate the social desirability and economic feasibility of a UBI in Brazil, and not to propose a specific design for practical implementation. Further work is needed to explore additional ways of financing, including consumption taxation, elimination of some inefficient ill-targeted programs, and the abolition of numerous regressive fiscal subsidies. The revival of the political and public debate on UBI proposals prompted by the coronavirus pandemic makes further research essential.

REFERENCES

AMARAL, V. L. *Renda básica:* Fundamentos, experiências internacionais e perspectivas para o Brasil. 2021. Dissertação (Mestrado em Economia do Setor Público) – Universidade de Brasília, Brasília, DF, 2021. Disponível em: https://repositorio.unb.br/bitstream/10482/41810/1/2021_Vin%C3%ADciusLeopoldinodoAmaral.pdf. Acesso em: 7 mar. 2021.

ATKINSON, A. *Public economics in action*: The basic income/flat tax proposal. Oxford: Oxford University Press, 1995.

BANERJEE, A.; NIEHAUS, P.; SURI, T. *Universal basic income in the developing world*. Massachusetts: National Bureau of Economic Research, 2019. (NBER Working Paper, n. 25598)

BRASIL. Ministério da Fazenda. *Efeito redistributivo da política fiscal no Brasil*. Brasília, DF: Ministério da Fazenda, 2017.

BUCHANAN, J. *Fiscal theory and political economy*. Chapel Hill, NC: University of North Carolina Press, 1960.

BUCHANAN, J. *Public finance in democratic process*. Chapel Hill, NC: University of North Carolina Press, 1967.

FRIEDMAN, M. *Capitalism and freedom*. Chicago: The University of Chicago Press, 1962.

GENTILINI, U.; GROSH, M.; YEMTSOV, R. The idea of universal basic income. *In*: GENTILINI, U. *et al.* (Eds.) *Exploring universal basic income*: A guide to navigating concepts, evidence, and practices. Washington, DC: The World Bank, 2020. p. 17-72.

HOYNES, H.; ROTHSTEIN, J. *Universal basic income in the US and advanced countries*. Massachusetts: National Bureau of Economic Research, 2019. (NBER Working Paper, n. 25538)

IMMERVOLL, H. *et al*. B. Simulating Brazil's tax-benefit system using BRAHMS, the Brazilian household microsimulation model. *Economia Aplicada*, v. 10, n. 2, p. 203-223, 2006.

IMMERVOLL, H. *et al*. The impact of Brazil's tax-benefit system on inequality and poverty. In: KLASEN, S.; NOWAK-LEHMANN, F. (Eds.). *Poverty, inequality, and policy in Latin America*. Cambridge, MA: The MIT Press, 2009. p. 271-301.

IBGE - INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATÍSTICA. *Pesquisa Nacional por Amostra de Domicílios Contínua*. Notas Técnicas, versão 1.5. Rio de Janeiro: IBGE, 2018. Disponível em https://www.ibge.gov.br/estatisticas/sociais/rendimento-despesa-e-consumo/17270-pnad-continua.html?=&t=downloads. Acesso em: 6 dez. 2018.

IMF - INTERNATIONAL MONETARY FUND. *Fiscal Monitor:* Tackling Inequality. Washington, DC: IMF, 2017. Disponível em: https://www.imf.org/en/Publications/FM/Issues/2017/10/05/fiscal-monitor-october2017. Acesso em: 7 mar. 2021.

LAVINAS, L. Brazil: the lost road to citizen's Income. *In*: LO VUOLO, R. (Ed.) *Citizen's income and welfare regimes in Latin America:* From cash transfers to rights. London: Palgrave Macmillan, 2013. p. 29-49.

MEADE, J. E. *Liberty, equality and efficiency*: Apologia pro agathotopia mea. London: Palgrave Macmillan, 1993.

OECD - ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT. *OECD Data*. Income inequality. OECD, 2017. Disponível em: https://data.oecd.org/. Acesso em: 21 abr. 2019.

PAINE, T. *Agrarian justice*. Philadelphia: Printed by R. Folwell, for Benjamin Franklin Bache, 1797. Disponível em: https://web.archive.org/web/20150912130040/http://www.socialsecurity.gov/history/paine4.html. Acesso em: 20 jan. 2021.

PAIVA, L. H. *et al*. *A reformulação das transferências de renda no Brasil simulações e desafios*. Brasília, DF: IPEA, 2021.

RIGOLINI, J. *et al.* Comparative effects of universal basic income: emerging issues and estimates. *In*: GENTILINI, U. *et al.* (Eds.). *Exploring universal basic income*: A guide to navigating concepts, evidence, and practices. Washington, DC: The World Bank, 2020. p. 123-152.

SIQUEIRA, R. B. IVA uniforme com renda básica: Uma proposta de reforma da política tributária e social no Brasil. *In:* ENCONTRO NACIONAL DE ECONOMIA, 29, 2001, Salvador. *Anais* […]. Salvador: Associação Nacional dos Centros de Pós-Graduação em Economia, 2001. p. 1-19.

SUPLICY, E. M. *Renda de cidadania*: A saída é pela porta. 7. ed. São Paulo: Cortez Editora, 2013.

TOBIN, J.; PECHMAN, J. A.; MIESZKOESKI, P. M. Is a negative income tax practical? *The Yale Law Journal*, v. 77, n. 1, p. 1-27, 1967.

VAN PARIJS, P. *Arguing for basic income*: Ethical foundations for a radical reform. New York: Verso, 1992.

VAN PARIJS, P.; VANDERBORGH, Y. *Basic income*: A radical proposal for a free society and a sane economy. Cambridge, MA: Harvard University Press, 2017.

WISPELAERE, J.D.; YEMTSOV, R. The political economy of universal basic income. *In*: GENTILINI, U. *et al.* (Eds.). *Exploring universal basic income:* A guide to navigating concepts, evidence, and practices. Washington, DC: The World Bank, 2020. p. 183-215.