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THE BRAZILIAN GOVERNMENT SEVERANCE INDEMNITY FUND FOR EMPLOYEES (FGTS) AND UNEMPLOYMENT INSURANCE SAVINGS ACCOUNTS IN OTHER COUNTRIES: A COMPARATIVE ANALYSIS OF THEIR EFFECTS ON THE LABOUR MARKET ¹

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1 INTRODUCTION

The main objective of passive employment policies is to guarantee a certain level of consumption and well-being for workers who lose their jobs. These policies also aim to assist the unemployed in searching for a new job and to improve the matching between employers and workers to generate positive effects on the duration of employment, productivity and wages. Most passive employment policies consist of cash transfers for unemployed people. From a cyclical point of view, unemployment protection systems can help stabilise the economy in times of crisis, stimulate labour formalisation (especially in developing countries) and, in some cases, increase savings, especially in the long term.

In most countries, the unemployment protection system is based on one or more of the following programmes: (i) unemployment insurance: a general fund which pays a certain number of instalments calculated on the basis of the (average) salary in the company; ii) severance pay: payments which are not set aside (or set aside in non-individual accounts) and paid by the company after the dismissal of the employee. Usually, the severance pay is calculated based on the previous salary and the time of employment in the company; and iii) unemployment individual savings accounts (UISAs): individual mandatory savings accumulated over the period of employment in the company and accessed by the employee after dismissal.

These programmes not only affect the behaviour of individuals but can also have not inconsiderable effects on the labour market. Depending on the benefit formulas and eligibility criteria, programmes can have adverse effects on labour supply. Unemployment insurance, for example, may lead to the employees' premature termination of employment as well as an increase in the duration of unemployment, higher turnover rates (due to the stimulus to terminate employment) and increased informality through simulated dismissals

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(Barros, Corseuil, and Foguel 2000; Tatsiramos and Van Ours 2014; Robalino and Weber 2013; Ribe, Robalino, and Weber 2012).⁴ At the same time, however, higher unemployment insurance benefits can provide workers with more flexibility when looking for a job and create better matching between employers and workers, as is the case in some European countries (Tatsiramos 2009). Evidence further suggests that such benefits can raise workers' wages after termination of unemployment (Ehrenberg and Oaxaca 1976).

The effects of severance pay may include labour market rigidity and higher unemployment rates (Lazear 1990; Heckman and Pagés 2000), although some authors claim that the impact on the level of employment is uncertain when both dismissals and hirings are reduced (Barros, Corseuil, and Foguel 2000; Addison and Teixeira 2003). The net effect on the level of employment depends on the production technology, the type of adjustment cost and the rules regulating severance pay (*ibid.*). Severance pay can also affect productivity, wages and the duration of unemployment (Barros, Corseuil, and Foguel 2000).

On the worker's side, it can raise the reservation wage and thereby reduce the outflow from unemployment and increase turnover. Moreover, productivity can be reduced due to lower investment in human capital, resulting in lower wages (*ibid.*). On the employer's side, although severance payments may increase the quality of matching between employers and employees, they may distort incentives at the time of hiring or firing employees (Bentolila and Bertola 1990; Hopenhayn and Rogerson 1993).⁵

UISAs have the advantage over the previous programmes mentioned that they are financed by the savings of the workers themselves, meaning that they have a greater incentive to seek and/or take jobs (Robalino and Weber 2013). As they are a form of savings, balances in individual accounts may, under certain conditions, be used to finance investments, such as education or the purchase of a property, or to increase the value of pensions after retirement. The main criticism of UISAs is that they do not provide sufficient protection to workers. This is particularly the case for those who are less skilled, who tend to have lower contribution rates (and, therefore, smaller savings) and are more frequently unemployed (even if for shorter periods) than other workers. In addition, since such benefits are paid as a lump sum, there is a risk that the worker will spend the full benefit before finding a new job. Another criticism is that the below-market interest rates and low liquidity of UISAs generate incentives for workers to bring about their dismissal or agree with their employers to simulate a dismissal (Barros, Corseuil, and Foguel 2000).

This paper has three objectives. The first is to analyse the current structure of the Brazilian Government Severance Indemnity Fund for Employees (*Fundo de Garantia por Tempo de Serviço*—FGTS) and to present a brief description of the fund's history and institutional framework. The second objective is to conduct a comparative analysis between the FGTS and UISAs adopted in some other Latin American countries. The aim here is to point out the programmes' main similarities and those characteristics that are different. The third objective is to present the main results of the most recent empirical studies evaluating the impact of UISAs on labour market indicators.

Following this introduction, this paper is organised as follows. Section 2 provides a description of the legal institutional framework and the management of the FGTS. In Section 3 the FGTS is compared with similar programmes adopted in other countries. Section 4 presents the most recent empirical evidence on the effects of UISAs on turnover, informality and labour costs, among other labour market indicators. The final considerations of this paper are summarised in Section 5.

2 THE BRAZILIAN GOVERNMENT SEVERANCE INDEMNITY FUND FOR EMPLOYEES (*FUNDO DE GARANTIA POR TEMPO DE SERVIÇO*—FGTS)

The FGTS was created in 1966, replacing in practice the previous indemnity system.⁶ With the FGTS, the intention was to force companies to make savings through monthly deposits in accounts linked to their workers. Employees could receive the accumulated amount when they retired or were dismissed or for the purchase of a property.

Through Section III, Article 7 of the Federal Constitution of 1988, the right of workers (urban and rural) to the FGTS reached constitutional level. The Fund is financed through monthly contributions equivalent to 8 per cent of the employee's salary, which are paid by the employer on behalf of the employee (Carvalho and Pinheiro 1999).⁷ When not used by the employee, the government uses the money deposited in the accounts for housing, basic sanitation and infrastructure projects.⁸

Prior to the implementation of the FGTS, employers who dismissed workers without just cause had the financial burden of paying higher indemnities to those workers who had a longer length of service (Machado and Neto 2011). The Consolidation of Labour Laws (*Consolidação das Leis do Trabalho*—CLT) determined that the indemnity to be paid to any worker dismissed was based on one month's salary per year worked. In addition, there was a 10-year stability rule for workers in a company.⁹ This rule encouraged the dismissal of workers who were close to completing 10 years of service (Barros, Corseuil, and Foguel 2000). The main objective of the FGTS was to correct these distortions and to use indemnity saving accounts to make the process of dismissing Brazilian workers more flexible.

Contributions to the FGTS were as follows: when a firm hired a new employee, a bank account was opened, into which 8 per cent of the salary paid was deposited every month, adjusted for interest rates and monetary adjustments. Workers could have access to account balances at the time of their dismissal. Some authors suggest, however, that this institutional arrangement led to unskilled and low-wage workers forcing their dismissal to access their FGTS savings, resulting in higher turnover rates (Machado et al. 2011; Cardoso et al. 2006). As employers no longer needed to pay large severance payments at the time of dismissal, the financial protection of unemployed workers was reduced. This is because the Fund guarantees the worker approximately one month's salary for each year worked. However, with the high turnover rates of the Brazilian labour market, most of the workers spent less than a year in the same job, forcing them to constantly withdraw funds from the FGTS. The result is that financial protection in the case of unemployment ceased to exist (Ipea 2006).

The current structure of the FGTS, regulated by Law No. 8,036 of 11 May 1990, is managed and administered by a trustee council, a tripartite entity comprising representatives of workers (trade unions), employers (confederations of industry sectors) and the federal government (the Federal Savings Bank—*Caixa Econômica Federal*—and the Civil Office of the Presidency of the Republic, among others). The council is headed by the Minister of Labour. The Ministry of Labour is responsible, among other duties, for overseeing the collection of FGTS contributions. The operator of the Fund's resources is the Federal Savings Bank.

The FGTS covers all workers with a formal employment contract, governed by the Consolidation of Labour Laws, as well as rural workers, temporary workers, volunteers, clerks and professional athletes. For domestic workers, compulsory contributions were introduced only in October 2015.¹⁰ The FGTS is made up of individual accounts, opened on behalf of each

worker as soon as the employer makes the first deposit.¹¹ As it is an employer's obligation, the FGTS is not deducted from the employee's salary. The balance of the account is composed of the monthly deposits made by the employer, plus monetary corrections and interest rates. The value of the contributions corresponds to 8 per cent of the gross salary paid to the worker.¹²

Until 2017 the funds deposited in the FGTS were remunerated at 3 per cent per year plus the reference rate used for interest and the monetary correction of investments and applications in Brazil. Historically, the FGTS returns have always been well below inflation. In 2016, for example, the National Broad Consumer Price Index measured inflation at 6.29 per cent, while the Fund's remuneration rate was 5.01 per cent.¹³

The low remuneration rate of the FGTS, compared to other financial applications with equivalent risks, reduces the value of the Fund. This undervaluation results in a situation where the benefit received by the worker is lower than the cost to the company: every BRL1 deposited by the company in the FGTS translates into less than BRL1 for the worker. This difference between benefit and cost is a source of inefficiency which increases the cost of, and thus decreases the demand for, labour (World Bank 2002). For the labour market in general, the undervaluation of the FGTS can have adverse consequences on several indicators. With regard to turnover, for example, there is an incentive for the worker to bring about his dismissal, which is magnified by the receipt of severance pay. In addition, as the undervaluation increases with the duration of employment, the FGTS discourages longer working relationships. The difference between the benefit received by the worker and the cost incurred by the company also generates an incentive for informality, since, instead of depositing money in the worker's FGTS account, the employer could pay the worker directly. Instant access to unemployment insurance could also increase the incentive for informality by encouraging simulated dismissals.

A recent amendment to Law No. 8,036 of 1990 aimed to raise the remuneration rate of FGTS accounts by allowing the distribution of 50 per cent of the Fund's profits during the previous year (Law No. 13,466 of 25 May 2017). With the distribution of half of the Fund's annual profit to workers, the government estimated that the annual remuneration rate would be around 5–6 per cent (the reference rate plus 3 per cent). The latest official data suggest that, in 2016, of a total value of BRL14.5 billion, BRL7.2 billion was credited to the accounts of about 88 million workers. As a result, the annual profitability of the accounts reached 7.14 per cent—comfortably above the percentage foreseen.

Withdrawals from the FGTS may be made in several circumstances, the main ones being dismissal without just cause, retirement and for the financing of the employee's home. Inactivity of the account for three continuous years and serious illnesses also allow workers to withdraw the savings accumulated.¹⁴ Table 1 shows that dismissal without just cause was the most common reason for withdrawal and also accounted for the highest withdrawal values in 2016 (49 per cent and 63 per cent, respectively). The second most common reason was retirement, which accounted for about 23 per cent of withdrawals and 14 per cent of total withdrawal value for the same year; loans for housing represented the third most common reason for withdrawals in both number and value.

In addition to the change in the form of remuneration of the FGTS, Law No. 13,446 of 2017 also changed the rules for withdrawing from inactive accounts for a brief period in 2017.¹⁵ As previously seen, the right to withdraw from an inactive account was valid only for those who had been unemployed for at least three years without interruption. Under the new law, between 10 March and 31 July 2017 the government allowed, in exceptional cases,

the withdrawal of accounts that had been inactive since 31 December 2015. The most recent information suggests that during this period, BRL44 billion was paid to 25.9 million workers.¹⁶

TABLE 1

Brazil: Reasons for withdrawal from the FGTS (2016)

Categories	No. of withdrawals	Proportion of the total	Value (BRL thousands)	Proportion of the total
Dismissals without just cause	18,026,687	48.6%	68,186,401	62.6%
Retirement	8,475,800	22.8%	15,714,008	14.4%
Housing	2,224,626	6.0%	13,842,886	12.7%
Inactivity of account	1,233,273	3.3%	1,685,490	1.5%
Malignant neoplasia/ illness at terminal stage	440,311	1.2%	717,816	0.7%
Other categories	6,725,587	18.1%	8,746,013	8.0%
Total	37,126,284	100.0%	108,892,614	100.0%

Source: FGTS. Authors' own elaboration.

A worker protection device that is directly linked to the FGTS is severance pay for dismissals without just cause. The amount is 40 per cent of the balance of the dismissed worker's FGTS account.¹⁷ Since the end of 2001, the employer has also had to pay social contributions of 10 per cent of the balances of individual accounts (Complementary Law No. 110/2001).

In addition to the FGTS, Brazil also has unemployment insurance (established in 1986).¹⁸ To be eligible to receive it, workers must be unemployed and must have been dismissed from their job without just cause. They may receive three to five payments, depending on how long they worked with a signed labour card. Law No. 13,134 of 2015 established new rules for this benefit in terms of the eligibility and duration of the insurance. For example, before the new law, workers would need to have worked for only six months to be able to make their first request. With the new law, it takes at least 12 months for the first request, nine months for the second, and six months for the third. For the first request, workers must prove at least 12 months worked to receive four payments, and 24 months to receive five payments.¹⁹ The unemployment insurance is financed through the Workers' Assistance Fund, which also finances the salary bonus and other economic development programmes.²⁰

The differences between the unemployment insurance and the FGTS accounts are important for distinguishing the different effects that these programmes have on the intensity of job search as well as the quality of employee–employer matching. Moreover, they differ with regard to financing and fiscal deficit. On the one hand, as employees can exhaust their FGTS savings before finding another job (which can be problematic for low-paid workers), there is a greater incentive to search more intensively for a new job compared to unemployment insurance. In the case of unemployment insurance, workers become more selective regarding the type of job they will accept, which tends to increase the duration of unemployment. On the other hand, with less time to seek employment, the FGTS can worsen the quality of the match between employer and employee, while unemployment insurance can improve the quality of the match. It is worth noting that unemployment insurance is financed by a uniform tax rate on company revenues, which implies that its cost is not proportional to the total number of dismissals from each company. From a macroeconomic point of view, the FGTS does not

interfere with issues of public deficit, as it is linked to individual savings accounts. The FGTS is used to subsidise investment policies for housing, basic sanitation and infrastructure. The unemployment insurance, on the other hand, has a fiscal impact, as it is financed by a public fund, and the minimum wage constitutes the minimum benefit level.

3 COMPARATIVE ANALYSIS BETWEEN COUNTRIES

The most common type of unemployment protection systems are unemployment insurance and severance pay programmes. Of the 183 countries analysed by Robalino and Weber (2013), 42 per cent have unemployment insurance, 77 per cent have a severance pay system, and only a few countries (mainly in Latin America) have UISAs.²¹ The authors find that more than half of these countries have at least two unemployment benefit programmes (particularly in developed countries).²²

With the exception of the Brazilian programme (created in 1966), UISAs are relatively new, and exist particularly in Latin America. Table 2 (see page 10) presents the basic characteristics of the UISAs adopted in selected countries (including Brazil). It shows that in Chile the system equivalent to the Brazilian FGTS comprises two types of funds: i) a pure individual fund, which is an account linked to the worker and financed by the employer; and (ii) a solidarity fund, which is a fund for all workers, financed partly by employers and partly by the government. In the case of Ecuador, the individual fund is financed by the employee, and the solidarity fund by the employer.²³

For all countries analysed, withdrawal criteria depend on the type of dismissal (with or without just cause). For example, in Brazil withdrawals are conditional on the worker being dismissed without just cause, while in Chile there is no such condition. In all countries, withdrawals may be made at the time of retirement, and in almost all countries withdrawals are allowed for the purchase of property and for health reasons (terminal illnesses). Some also allow withdrawals as a loan guarantee (Peru) and for educational expenses (Colombia and Venezuela). In 2002 the Peruvian government authorised, exceptionally, workers to withdraw 100 per cent of the balances of their individual accounts (*compensacion por tiempo de servicio*) to pay off debts and to “stimulate domestic demand” (Ferrer and Riddle 2011). Withdrawals were allowed until January 2005.

In most countries the contributions are paid by the employer and amount to one full salary per year. In Chile the contribution rates are lower, and the government subsidises the solidarity fund. Some countries impose a minimum contribution period (Chile: 12 months; Ecuador: 24 months). In Chile, benefits are paid in instalments using a decreasing replacement rate. If workers do not have enough savings in their individual accounts, they may access the solidarity fund. In Ecuador, the solidarity fund covers the equivalent of 70 per cent of the minimum wage per month. Savings in individual accounts are used to supplement the benefits until they reach the foreseen amount (70 per cent of the average monthly salary in the first month of payment, also using a decreasing replacement rate until the fifth month).

In all countries, recognised financial institutions or the government are in charge of the management of the funds, and the remuneration rate follows the (real) interest rate of the economy. All countries have severance pay programmes as an instrument to protect individuals against unemployment. In Venezuela, severance pays are independent devices

in addition to the individual saving accounts.²⁴ Holzman et al. (2011) have conducted a comprehensive comparative analysis of severance pay programmes around the world. The authors suggest that severance pay programmes adopted in developed countries impose fewer restrictions on employers than those in emerging and transition countries. In developed countries, severance payments are usually lower, and the administration of these programmes is simpler (thus less costly). In most cases, payments are not mandatory, but determined by collective or company-level agreements (ibid.). Parsons (2012a; 2012b) also suggests significant differences in severance pay programmes between countries. The author shows that, in most cases, payments are linked to a form of unemployment insurance, while in a very small number of countries they appear as individual funds. According to the author, the two forms of severance pay programmes imply different costs for the employer and can be seen as extreme cases of a continuum of unemployment protection programmes which differ in their eligibility criteria. While severance payments in the form of unemployment insurance may only be received in the case of unfair dismissal, benefits from individual funds may be received in a wider range of circumstances (ibid.).

Table 1 shows that, among the countries analysed, only Brazil and Venezuela have an unemployment insurance programme. It is also worth noting that Brazil is one of the few countries that has adopted all three instruments of unemployment protection simultaneously (UISA, severance pay and unemployment insurance). The comparison between countries shows that, with the exception of Brazil and Venezuela, usually only two of these instruments are adopted: individual funds and severance pay.

Ferrer and Riddell (2011) analyse the experience of Latin American countries that use UISAs. The authors conclude that, in general, the effects of these programmes depend on the specific characteristics of each country and each programme. The way the system is implemented, the existing labour legislation, the size of the informal economy and the space for collusive behaviour between employers and workers can significantly influence the success of these programmes. The authors also suggest that the political and institutional environment in the countries should be taken into account.

4 EFFECTS OF UISAS ON THE LABOUR MARKET

Given the adverse incentives sometimes generated by unemployment insurance programmes, many countries have attempted to redesign their employment protection system by setting up UISAs. Theoretical studies have shown that UISAs can significantly change workers' incentives (Orszag and Snower 2002; Orszag, Snower, and Sitglitz 1999). According to the authors, the main advantage of UISAs over traditional unemployment insurance systems is their potential to increase the incentives of unemployed people to seek employment.²⁵

Given the limited empirical evidence about UISAs, several studies are based on simulations and focus on the feasibility of these programmes. Most simulations suggest that UISAs, in addition to being a viable alternative to unemployment insurance programmes, can improve incentives in the labour market.²⁶

The few existing empirical studies on the evaluation of UISAs do not yet show well-established results regarding the effects of these programmes. The following are the results of studies for three countries: Chile, Colombia and Brazil.

TABLE 2
Characteristics of unemployment insurance saving account programmes, Brazil and Latin America

Country	Funds	Eligibility criteria for withdrawal	Contributions	Benefits	Management	Regulation/ remuneration	Other programmes	
							Severance	Unemployment insurance
Brazil (1966)	FGTS	Dismissal without just cause; property; health; retirement; other.	Employer (8% of monthly salary)	Full payment after dismissal; Withdrawals for property and health reasons; Withdrawals authorised by the government (in 2017).	Caixa Econômica Federal	Interest rate of 3% + reference rate + 50% of the profits of the fund	Yes	Yes
Chile (2002)	<i>Cuentas Individuales de Cesantía (CIC)</i>	CIC: any type of employment termination and 12 months of contributions	CIC: Employer (1.6% of monthly salary); Employee (0.6% of monthly salary)	CIC: Determined by duration of contributions (max. 5 withdrawals)	Recognised financial institution (with exclusive dedication)	Pension fund rules; Average real interest rate (2002–2010): 2.8% CIC and 3.1% CS	Yes	-
	<i>Fondos de Cesantía Solidario (CS)</i>	CS: involuntary termination and 12 months of contributions; insufficient balances in the CIC	CS: Employer (0.8% of monthly salary); Government (0.6% of monthly salary)	CS: Determined by replacement rate (50%) of the average salary of the beneficiary in the previous 12 months; decreasing replacement rate 5% per month (4 months)				
Colombia ¹ (1990)	<i>Fondos de Cesantía</i>	Dismissal; retirement; property; education	Employer (9.3% of the monthly salary)	Full payment after dismissal; Withdrawals for property and education	Recognised financial institution (with exclusive dedication)	Regulated by the rules of the Banking Superintendency; Real interest rate: 3%	Yes	-
Ecuador (2016)	<i>Fondo solidario (FS)</i>	FS: unemployed for at least 60 days and 24 months of contributions; involuntary termination of unemployment.	FS: Employer (1% of monthly salary)	5 months: in the first month the payment is 70% of the average salary received in the previous year gradually reduced to 50% in the fifth month (FS finances 70% of the minimum monthly salary FC the rest); after the fifth month withdrawals possible from the FC	Instituto Ecuatoriano de Seguridad Social (IESS)	Basic interest rate of the Central Bank of Ecuador	Yes	-
	<i>Fondos de Cesantía (FC)</i>	FC: unemployed for at least 60 days and 24 months of contributions; maternity/paternity leave without remuneration; retirement	FC: Employee (2% of monthly salary)					



Country	Funds	Eligibility criteria for withdrawal	Contributions	Benefits	Management	Regulation/remuneration	Other programmes	
							Severance	Unemployment insurance
Peru (1991)	<i>Compensación por Tiempo de Servicio</i>	Dismissal; retirement; loan guarantee; emergencies	Employer: two deposits per year (50% of the monthly salary)	Full payment after dismissal; Loans (50%); Emergencies; Withdrawals authorised by the government (2002)	Banking institutions and savings cooperatives	Interest rate (2008): 4.5% banks; 11% cooperatives	Yes	-
Venezuela (1997)	-	Dismissal; property; health; education; retirement	Employer (5 days of monthly salary + 2 days of monthly salary per year up to a maximum of 30 days)	Full payment after dismissal; Withdrawals for property, health and education reasons	Recognised financial institution or employer	Return of market applications	Yes	Yes ³
Mexico ²	<i>Cuenta Individual de Ahorro (CI) Fondo Solidario (FS)</i>	Unemployed and 24 months of contributions (over a 36-months period); retirement; property	CI: Employer (2% of monthly salary)	Full payment after dismissal; Withdrawals for property; When CI balance is insufficient, worker may use FS	Government (Solidarity Fund)	-	Yes	-

Source: OECD (2011); SSA and ISSA (2016); ILO (2014); Robalino and Weber (2013); Ferrer and Riddel (2011); Hartley, Van Ours, and Vodopivec (2011); Holzman et al. (2011); Kugler (2005); and IESS (2016).

Notes: 1. In Colombia the severance pay was replaced with individual accounts through the 1900 reform.

2. In Mexico, the programme is under discussion. The discussion on the reform of the country's unemployment insurance programme began in 2012, but since April 2014, approval of the reform has stagnated in the Mexican Congress.

3. For the unemployment insurance in Venezuela the employer contributes 2 per cent of the payroll, and the worker 0.5 per cent of covered earnings. The government contributes as necessary and may subsidise up to 50 per cent of contributions for low-income workers (SSA and ISSA 2016).

For Chile, Hartley et al. (2001) suggest that beneficiaries who only use the individual accounts find employment faster than those using the solidarity fund. In addition, the authors suggest that rates of finding a new job are positively correlated with the balances on the pre-employment accounts among those who use the solidarity funds, but are not correlated among those who use only the individual funds. Sanhueza and Castillo (2008) analyse the impact of the introduction of the Chilean system on the risk of unemployment and find effects on the reduction of this risk, although the authors do not distinguish between the two types of funds in the system.

Kugler (2005) provides evidence that the introduction of the UISA system in Colombia in 1990 allowed companies to avoid between 75 per cent and 87 per cent of workers' contributions through wage reductions. The study also suggests that the new system has led to an increase in the number of both dismissals and hirings. The author, however, does not analyse the effects of these funds on incentives to find a new job.

The literature on Brazil is also scarce. Barros, Corseuil, and Foguel (2000) show that more than two thirds of those who resigned also withdrew from the FGTS, suggesting simulated dismissals and a high level of interest among the workers to have access to the individual funds. Robalino et al. (2008), through intertemporal choice modelling, propose a system of income protection for unemployed people that integrates the unemployment insurance programme with the FGTS. One of the main points in the proposal would be the transfer of resources obtained from the unemployment insurance programme to the FGTS accounts as a form of subsidy for workers with lower balances and low saving capacity. Another point of the proposal is that the benefits would be paid monthly, not at once. The authors show that integration between these two systems could improve employers' and workers' incentives and generate substantial positive effects on contribution rates, savings and the retirement system.²⁷

5 CONCLUSION

Although UISA programmes are very recent, and empirical evidence on their effects is limited, there seems to be growing consensus in the literature (e.g. Barros, Corseuil, and Foguel 2000; Vodopivec 2004; Robalino and Weber 2013) that the best unemployment protection system should be a combination of the traditional unemployment insurance systems, which have the main advantage of risk-sharing, together with UISAs (or traditional retirement funds) that stimulate savings, soften consumption over time and generate greater incentives for unemployed people to seek employment (Tatsiramos and Van Ours 2014).

For Brazil, for example, Barros, Corseuil, and Foguel (2000) have already suggested that the best option would be to use the FGTS as a basic protection mechanism, and unemployment insurance only for those workers whose last employment was not of long enough duration to accumulate sufficient savings.

A more flexible framework in the optimal design of an unemployment protection system entails finding a balance between efficiency and worker protection. Robalino and Weber (2013) suggest that this requires the duration and level of benefits (replacement rate and minimum benefit value) to be offered for different levels of income to be defined. With regard to the financing of the system, there would be four alternatives: i) contributions paid by the employer; (ii) taxation on wages; (iii) taxation of individual funds with positive

balances; and iv) general government revenues. The authors suggest that the best option would be a combination of taxation on individual funds with positive balances (below 100 per cent) and revenues from taxes on consumption and wealth, among others.

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NOTES

4. For a comprehensive review of the empirical evidence of the effects of social security policies on the labour market, see Krueger and Meyer (2002). For more recent and specific evidence on the effects of unemployment insurance programmes on the labour market, see Tatsiramos and Van Ours (2014).
5. Kugler (2002) points out that such distortions occur in the context of severance payments. The author also states that Lazear (1990) was one of the first to suggest that severance payments could be resolved through a 'voluntary' transfer from the worker to the employer, although the system of mandatory severance pay is very difficult to resolve in practice (*ibid.*). For a review of the severance pay programmes in several countries, see Holzmann et al. (2011).
6. The fund was created by Law No. 5,107 of 13 September 1966, effective 1 January 1967.
7. Until the 1988 Constitution, enrolment in the FGTS was optional. As Carvalho and Pinheiro (1999) explain, the worker had the right to opt for the new fund or the old regime, but in practice, companies started to hire workers only under the FGTS regime. The formal right to opt for the former regime ceased to exist only when the 1988 Constitution established the right to compensation exclusively in the form of the FGTS.
8. Specific budget allocations are also part of the resources of the fund, resulting from FGTS applications; severance pay; monetary corrections and default interests; revenues from Complementary Law No. 110/2001; and other revenues.
9. With this rule, the worker could be dismissed only in case of serious misconduct or in circumstances of force majeure.
10. Through Complementary Law No. 150, sanctioned on 1 June 2015.
11. The worker will have one account for every work contract signed.
12. For apprentices the contribution is reduced to 2 per cent (Law No. 11,180 of 2005).
13. For more information, see <www.ibge.gov.br> and <www.bcb.gov.br>. Accessed 28 September 2017.
14. The profits of the FGTS are obtained basically from investments and home loans.
15. According to Decree No. 9,108 of 2017, those who are unable to withdraw from their accounts during the established period due to a serious illness or imprisonment are allowed to withdraw until 31 December 2018.
16. The government has previously authorised the withdrawal of the FGTS account for exceptional circumstances. Decree No. 7,220 of 2010 allowed workers residing in areas affected by natural disaster to withdraw from their accounts. In that year, workers living in Alagoas and Pernambuco who were affected by the floods were permitted to withdraw the total amount from their accounts.
17. It is worth noting that up to the 1988 Federal Constitution, the severance pay was 10 per cent. The rules on severance pay are contained in Law No. 8,036 of 1990.
18. Although it is not the focus of this paper, it is worth noting that the Brazilian system also has the following instruments to protect the worker: Tax Allowance, Prior Notice, Temporary Suspension of Employment Contract for Professional Qualification—Lay-Off (*Bolsa Qualificação*) and the Employment Insurance Programme. The latter is intended for companies in financial difficulties and allows for the reduction of wages and working hours.
19. For a detailed analysis of the changes introduced in formal unemployment insurance and other modalities, see Ipea (2016).
20. The main resources of the Workers' Assistance Fund are the contributions of the Social Integration Programme (PIS) and the Programme of Formation of the Patrimony of the Public Servant (Pasep).
21. It is worth noting that in many cases the distinction between individual funds and other instruments of unemployment protection becomes somewhat complex. This difficulty arises because the unemployment insurance and/or severance pay adopted in several countries may assume some characteristics or objectives similar to individual funds. Reports from the International Labour Organization (ILO) and the US Social Security Administration were instrumental in providing more precise definitions of the instruments of unemployment protection adopted in this paper (ILO 2014; SSA and ISSA 2016, 13).
22. In most of these countries there are other programmes or arrangements for worker protection (such as prior notice and temporary reduction of working hours and wages or temporary suspension of contracts).

23. In 2012 the Mexican government began discussions on the creation of a system of individual accounts similar to the Chilean one. However, the process of implementing this new system has stagnated since 2014. Ecuador's programme only started in March 2016.

24. In the case of Colombia the UISAs also have the function of severance pay accounts. In other cases, severance pay is linked to the Individual Funds programme. This is the case, for example, in Chile, where in the case of dismissal due to the company's economic needs the employer can deduct the contributions paid to the Funds from the amount of the severance pay. As noted earlier, severance pay is the main form of compensation for unemployed people, especially in emerging countries (Robalino and Weber 2013).

25. By internalising the costs of unemployment, the UISA system avoids the moral hazard inherent in the traditional unemployment insurance programme.

26. See Feldstein and Altman (1998) for the USA; Jogen (2009) for the Netherlands; Vodopivec (2010) for Slovenia; and Bovenberg, Hansen, and Sorensen (2008) for Denmark.

27. There are some studies on the effects of severance pay which is calculated based on the amount deposited in the individual account of the employee during the period of employment by the company. Gonzaga (2003) finds evidence of an increase in the duration of employment for both the change in the amount of the severance pay (from 10 per cent to 40 per cent) with the 1988 Constitution and the increase in employers' contributions through Law No. 110/2001 (an additional 10 per cent paid by the employer). Barros, Corseuil, and Gonzaga (1999), on the other hand, find no evidence that the increase in severance pay from 10 per cent to 40 per cent (in 1988) changed the speed of adjustment in employment and, therefore, turnover rates. Barros, Corseuil, and Bahia (1999) analyse the effects of severance pay and find evidence for a decrease in the likelihood of dismissal of workers with three to six months of experience, but the evidence is ambiguous for those with more than six months of experience.



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